



**Department of Defense  
Electronic Biometric  
Transmission Specification  
(DoD EBTS) v4.1  
Integrated Data Dictionary (IDD)  
April 2019**

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# 1.0 Overview

The Department of Defense Integrated Data Dictionary (IDD) is one of the products published by the Defense Forensics and Biometrics Agency (DFBA) to facilitate interoperability between biometric systems. The IDD is the authoritative source for DoD biometrics data elements.

The IDD is one of the key components of the DoD Electronic Biometrics Transmission Specification (DoD EBTS) Information Exchange Package (IEP), and serves the following functions: identifies the high-value data exchanged across DoD biometric systems (both current and future), establishes authoritative definitions for that data, and documents standards for data in order to ensure accurate and efficient data flow.

## 2.0 Intended Audience

The intended audience for this Integrated Data Dictionary spans across the DoD Biometrics Community, other United States Government (USG) agencies, and Foreign Partners with a need to understand DoD EBTS transactions. This includes, but is not limited to, those responsible for biometric system design and development.

## 3.0 IDD Organization and Structure

### 3.1 Field Status States

As Standards and data usages evolve over time, the IDD must reflect the transition and retirement of certain data elements. The IDD does this by tracking the lifecycle of the data elements through the states as shown in Figure 1 below. The “NEW” prefix will be added to

the Status to indicate that it is an element that was added as a result of the EBTS v4.1 release (i.e. “NEW – Active”).

State	Description
<b>Active</b>	Currently viable and fully usable data element.
<b>Deprecated</b>	Element is still usable in current implementations, but it should not be used going forward. It will gradually be phased out with a new element(s) that incorporates the functionality of the deprecated element. The IDD will clearly mark if an element is deprecated. The IDD will also provide the superseding element(s) and any qualifying condition.
<b>Sunset</b>	Used for alerting the user community that an element may be retired in the future. IDD will provide indicator to clearly mark if an element is in the sunset state and the reason why.
<b>Retired</b>	Used to alert the user community that the data element shall not be used for current and future applications. The IDD will clearly mark if an element is retired.
<b>Emerging</b>	An element that can be considered for future capability. It has not yet been approved by FBSWG for use and can be subject to change.

**Figure 1: Data Element Statuses**

Figure 2 illustrates how an IDD data element transitions from one state to another. For example, a DoD data element which is Emerging may become Active after approval of the Forensics and Biometrics Standards Working Group and adoption by the biometric systems in use.

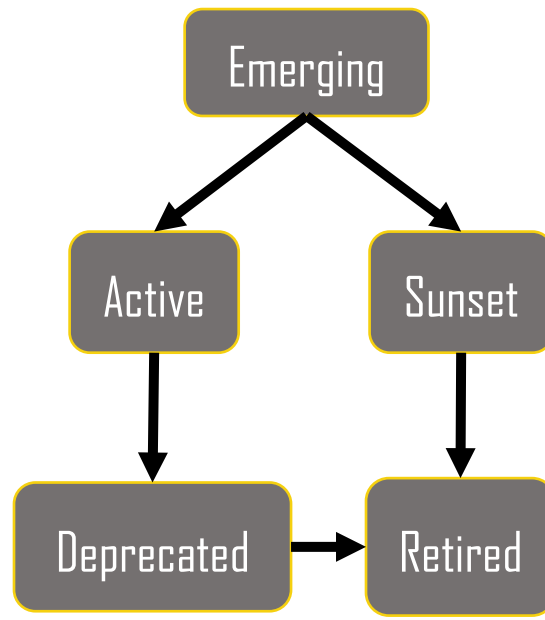


Figure 2: IDD Data Element Transition Path

## 3.2 IDD Subject Areas

The IDD is divided into sections based on the subject area in order to provide the context in which the data elements are used. The IDD contains data elements categorized within the subject areas that are listed in the table below.

Record	Subject Area	Description
Type-1	Transaction Information Record	Contains useful/required information items regarding the use or purpose of the transaction.
Type-2	User-Defined Descriptive Text Record	Contains contextual/situational/processing information (i.e. identification, biographic, and descriptive, information) regarding the subject, the encounter, response, sample and the transaction itself.
Type-4	High-Resolution Grayscale Fingerprint Image (Deprecated)	The use of this logical record for the binary Fingerprint image has been deprecated by Type-14 Variable-Resolution Fingerprint Image Record.

Figure 3: ANSI/NIST-ITL Record Types

Record	Subject Area	Description
Type-7	<b>Latent Image Binary Latent Image (Deprecated)</b>	The use of this logical record for the binary Latent Fingerprint image has been deprecated by Type-13 Variable-Resolution Latent Image Record.
Type-9	<b>Minutiae Data Record (Common)</b>	Includes fields 9.001 – 9.004. These common data elements shall be included for any minutiae features within a Type-9 record. Also includes fields 9.901- 9.904 for the universal latent workstation annotations and workstation identifiers.
Type-9	<b>Minutiae Data Record (Standard Features – Legacy)</b>	Includes fields 9.005 through 9.012. These fields are marked as legacy in ANSI/NIST ITL 1-2011.
Type-9	<b>Minutiae Data Record (IAFIS Features)</b>	Includes fields 9.013 – 9.030. Used for exchanging geometric and topological minutiae templates and information encoded from a finger or palm based on the FBI IAFIS standard.
Type-9	<b>Minutiae Data Record (INCITS M1-378 Features)</b>	Includes fields 9.126 – 9.150. Used for exchanging geometric and topological minutiae templates and information encoded from a finger or palm based on the ANSI/INCITS standard.
Type-9	<b>Extended Feature Set (EFS)</b>	Includes fields 9.300 – 9.399. The EFS defines additional types of fingerprint features, which allows Latent Print Examiners to document latent prints in much greater detail. These features are standardized to enhance interoperability between the various federal, state, and local agencies.
Type-10	<b>Facial, Other Body Part and SMT Image Record</b>	Used for exchanging facial, other body parts and image data from scars, marks, and tattoos (SMT) with textual information.
Type-11	<b>Forensic and Investigatory Voice</b>	Focused upon the analysis of voice signals for forensic and investigatory purposes.
Type-13	<b>Variable Resolution Latent Image Record</b>	Used for exchanging latent fingerprint or palmprint image data with textual information.
Type-14	<b>Variable Resolution Fingerprint Image</b>	Used for exchanging variable-resolution fingerprint image data, segmented flat fingerprint data, or major case print data with textual information.
Type-15	<b>Variable-Resolution Palm Print Image</b>	Used for exchanging variable-resolution palm print image data with textual information.
Type-17	<b>Iris Image</b>	Used for exchanging iris image data.
Type-18	<b>DNA Record</b>	Used for exchange of DNA data.

**Figure 3: ANSI/NIST-ITL Record Types (Cont.)**

Record	Subject Area	Description
<b>Type-20</b>	<b>Source Representation Record</b>	The source representation(s) from which other Record Types were derived. Examples are an image of multiple latent prints, of which one or more is of interest. Those would be segmented and prepared for sending in a Type-13 record.
<b>Type-21</b>	<b>Associated Context Record</b>	Contains an associated context record. This information does NOT contain information used to derive biometric information contained in other records. Record Type-20 serves that function. Record Type-21 may be used to convey contextual information, such as an image of the area where latent fingerprints were captured.
<b>Type-98</b>	<b>Information Assurance Record</b>	Contain security information that assures the authenticity and/or integrity of the transaction.
<b>Type-99</b>	<b>CBEFF Biometric Data Record</b>	Common Biometric Exchange Formats Framework (CBEFF). Used for exchanging biometric data not supported by other ANSI/NIST ITL logical record types.

**Figure 3: ANSI/NIST-ITL Record Types (Cont.)**

### 3.3 IDD Data Element Characteristics

The following figure lists the data element characteristics and describes the types of information represented by those characteristics.

Name	Description
<b>Field ID</b>	The Field ID number assigned by the transmission specifications (DoD EBTS or FBI EBTS) or ANSI/NIST ITL standard.
<b>Element Name</b>	Name of the data element containing the Category and Subcategory names. The element name is intended to be human readable.
<b>Mnemonic</b>	The Mnemonic is an abbreviated Element name assigned by the transmission specifications (DoD EBTS or FBI EBTS) or ANSI/NIST ITL standard.
<b>Conditionality</b>	Consists of Mandatory (M), Optional (O), and Dependent (D) codes which indicate the normal state of the field or component. An arrow indicator may be present to indicate hierarchical dependency.
<b>Status</b>	Indicates the current lifecycle status of the field (i.e. emerging, retired, active, etc.)

**Figure 4: IDD Data Element Characteristics**

Name	Description		
<b>Description</b>	Description or definition for the data element.		
<b>Field Min/Max</b>	Defines the number of characters allowed in the data element. For example, for some date fields the format will be YYYYMMDD, so therefore both the Field Min and Field Max will be equal to 8.		
<b>Occur Min/Max</b>	The occurrence minimum and maximum indicate the number of times a data element is allowed to occur within the transaction.		
<b>Char Types</b>	A	Alphabetic	26 English letters (both upper and lower case) within the 7-bit ASCII character set.
	AN	Alphanumeric	Alphabetic and numeric 1 2 3 4 5 6 7 8 9 0 within the 7-bit ASCII character set.
	ANS	Alphanumeric and special characters	Alphanumeric character set plus those special characters which are specifically stated in the description of the data, within the 7-bit ASCII character set.
	AS	Alphanumeric and special characters	Alphabetic character set plus those special characters which are specifically stated in the description of the data, within the 7-bit ASCII character set.
	B	Binary	See the ANSI/NIST-ITL for rules regarding binary encoding for traditional encoding (See Annex B: Traditional encoding) or Base64 for XML (See Annex C: NIEM- conformant encoding rules).
	Base64	Base-64	Encoded (exclusively)
	H	Hexadecimal	Representation: 0 1 2 3 4 5 6 7 8 9 A B C D E F
	N	Numeric	1 2 3 4 5 6 7 8 9 0
	NS	Numeric	Numeric character set plus those special characters which are specifically stated in the description of the data, within the 7-bit ASCII character set.
	U	Unicode	Characters available in UTF-8: Latin and extended Latin characters like ü, Ñ, ç, Þ, ß, †, ä, and/or special characters like £, €, ™, +, * and ‡, and/or non-Latin characters like ☒, ☓, , Å, □ , ж , ̣ , □ , ٢ , ٣ , and ٤.
<b>Special Chars</b>	Allowable characters that are neither alphanumeric nor binary, such as punctuation characters. For example: Period, Comma, Minus, Plus, Hyphen. 7-bit ASCII characters shall be used for special characters when Character Type is either AS, ANS or NS. UTF-8 character encoding shall be used for special characters when Character type is U.		

**Figure 4: IDD Data Element Characteristics (Cont.)**



Name	Description
<b>Format</b>	The Format field defines the data format for the element (e.g. YYYYMMDD for date).
<b>Value Constraints</b>	Identifies the value constraints that shall be applied to the content within the element (e.g. specific codes from the look up codes list, integer value of certain range, etc.).
<b>Code List</b>	Name of the code list located in Appendix A of this document containing the allowable codes for the data element.
<b>Source</b>	The authoritative source where the data element is completely or partially derived from.
<b>XML Levels</b>	Contains the default namespace prefix and XML field name. The level indicates the elements hierarchical appearance in the XML document.
<b>Cardinality</b>	Indicates the Minimum and maximum numbers of allowed occurrences for the referenced XML element. (1...1)
<b>DoD EBTS vX</b>	Indicator that the dictionary element was referenced by the DoD EBTS in v1.2, 3.0, 4.0, or 4.1.

Figure 4: IDD Data Element Characteristics (Cont.)

## 4.0 Date and Time Fields

Date fields must be valid dates and in accordance with the requirements stated below.

In general, the format for date fields are follows:

- A date is shown as an 8-digit numeric field of the format YYYYMMDD (YYYY-MM-DD for XML encoding), where:
  - YYYY (Year) must be 0000 to 9999
  - MM (Month) must be 01 to 12
  - DD (Day) must be 01 to the limit defined by the month and year (e.g., DD may be 29 for MM = 02 in leap years).

Gregorian calendar is default if not specified. For example 19921201 represents December 1, 1992.

Date-Time fields must be valid dates and time fields in coordinated universal time format (UTC), also known as “Zulu Time.” UTC is reflected as YYYYMMDDHHMMSSZ in Traditional Encoding and YYYY-MM-DDTHH:MM:SSZ in XML Encoding. The “Z” at the end of the date-time string indicates the time zone, which is always set to UTC time. The format for the date is the same as above. The format for time is as follows:

- HH (Hour) must be 00 to 23
- MM (Minute) must be 00 to 59
- SS (Second) must be 00 to 59

For example 19921201103015Z represents December 1, 1992 at 10:30:15AM.

Since dates and time find a variety of uses in EBTS transactions, each use may have specific format restrictions or special edits. For specific format restrictions or special edits, see the individual date field entries for detail.

# 7.0 IDD Element Definitions by Type

Type-1: Transaction Information

**1.001: Record Header (LEN)**

**Description:**

The record header appears as the first field in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field (xx.001) contains the record length in bytes (including all information separators) and has a mnemonic of LEN. Table 5 of the ANSI/NIST-ITL Update: 2015 lists the minimum and maximum permitted lengths of the field in Traditional encoding. In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Depending Upon Encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord

NIEM Element: itl:Transaction

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.002: Version Number (VER)**

**Description:**

This mandatory four-character ASCII value shall be used to specify the current version number of the standard implemented by the software or system creating the transaction. The format of this field shall consist of four numeric characters. The first two characters shall specify the major version number. The last two characters shall be used to specify the minor revision number. The 2011 version of the standard without any of the record types or fields introduced for the 2013 Update has the entry "0500". The 2013 Update uses "0501". The 2015 Update uses "0502". In XML, nist-itl:TransactionMajorVersionValue is 5, and nist-itl:TransactionMinorVersionValue is 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4 ; X = 1	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	T = #### ; X = #	T = 0500, 0501 or 0502 ; X = = biom:TransactionMajorVersionValue = 5, biom:TransactionMinorVersionValue = 2

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionMajorVersionValue/itl:TransactionMinorVersionValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.003: Transaction Content (CNT)**

**Description:**

This mandatory field shall list and identify each of the records in the transaction by record type and its IDC value. It also specifies the order in which the remaining records shall appear in the file. It shall consist of two or more subfields. The first subfield shall relate to this Type-1 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionContentSummary

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.003\_0: Transaction Content - Subfield: Single set of information items (CNT\_0)**

**Description:**

This field indicates repeating subsets of the Transaction Content field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a		n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.003\_1a: Transaction Content - First Record Category Code (FRC)**

**Description:**

The first information item (first record category code / FRC) within this subfield shall be "1". This indicates that the first record in the transaction is a Type-1 record consisting of header information.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	FRC = 1 integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: dod-ebts:TransactionContentSummary

NIEM Element: dod-ebts:ContentFirstRecordCategoryCode

XML Min/Max: 1 / \*

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.003\_1b: Transaction Content - Content Record Count (CRC)**

**Description:**

The second information item of the first subfield (content record count / CRC) shall be the sum of the Type-2 through Type-99 records contained in this transaction. This number is also equal to the count of the remaining subfields of Field 1.003: Transaction content / CNT. The maximum for CRC is 999.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	CRC = count of record types 2 through 99; min = 1; max = 999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionContentSummary

NIEM Element: itl:ContentRecordQuantity

XML Min/Max: 1 / \*

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.003\_2: Transaction Content - Content Record Summary (REC)**

**Description:**

This information item represents repeating subsets of the Content Record Summary.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
n/a	n/a	1	*
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
n/a	n/a		n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionContentSummary/itl:ContentRecordSummary

NIEM Element: itl:RecordCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**1.003\_2a: Transaction Content - Subfield: Repeating pairs of information items (REC\_0)**

**Description:**

This field indicates repeating subsets of the Transaction Content field.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
n/a	n/a	CRC value	CRC value
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: dod-ebts:TransactionContentSummary

NIEM Element: dod-ebts:ContentRecordSummary

XML Min/Max: 1 / \*

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.003\_2a: Transaction Content - Record Category Code (REC)**

**Description:**

The first information item (record category code / REC), shall contain a number chosen from the "record identifier" column of Table 3 in the ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	REC = 2 or 4; or $7 \leq REC \leq 22$ ; or REC = 98 or 99; integer

Code List: DOD EBTS APPROVED LOGICAL RECORD NUMBER CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: dod-ebts:TransactionContentSummary

NIEM Element: dod-ebts:ContentRecordSummary

XML Min/Max: 1 / \*

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.003\_2b: Transaction Content - Information Designation Character (IDC)**

**Description:**

The second information item (information designation character / IDC) shall be an integer equal to or greater than zero and less than or equal to 99. See Section 7.3.1 of the ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	$0 \leq IDC \leq 99$ non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionContentSummary/itl:ContentRecordSummary

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-1: Transaction Information

**1.004: Type of Transaction (TOT)**

**Description:**

This mandatory field shall contain an identifier, which designates the type of transaction and subsequent processing that this transaction should be given. This shall be a maximum of 16 alphabetic characters. The TOT shall be in accordance with definitions provided by the domain or application profile. Versions of this standard prior to 2011 specifically restricted the character length of TOT to 4 characters. See DoD EBTS v4.1 ToT Matrix for allowed Types of Transactions.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	16	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	DoD EBTS v4.1 ToT Matrix

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionCategoryAbstract

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.005: Date (DAT)**

**Description:**

This mandatory field shall contain the local date when the transaction was submitted. See Section 7.7.2.3 of the ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
N	None	YYYYMMDD - for Traditional Encoding or NEIM Conformant Encoding	Dependent upon encoding. Default is YYYYMMDD.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionDat

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.006: Priority (PRY)**

**Description:**

This optional field shall contain a single information character to designate the urgency with which a response is desired. The values shall range from 1 to 9, with 1 denoting the highest priority. The default value shall be defined by the agency receiving the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Default: 1 ≤ PRY ≤ 9 positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionPriorityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.007: Destination Agency Identifier (DAI)**

**Description:**

This mandatory field shall contain the identifier of the administration or organization designated to receive the transmission. The size and data content of this field shall be userdefined and in accordance with the application profile. The name of the destination agency may be entered in Field 1.017: Agency names / ANM. A valid value for this field is "Not Specified."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionDestinationAgency

NIEM Element: itl:PackageInformationRecord/itl:Transaction/itl:TransactionDestinationAgency

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.008: Originating Agency Identifier (ORI)**

**Description:**

This mandatory field shall contain the identifier of the administration or organization originating the transaction. The size and data content of this field shall be user-defined and in accordance with the application profile. See Section 7.6. The name of the originating agency may be entered in Field 1.017: Agency names / ANM. A valid value for this field is "Not Specified."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionOriginatingAgency

NIEM Element: nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.009: Transaction Control Number (TCN)**

**Description:**

This mandatory field shall contain the transaction control number as assigned by the originating agency. A unique (for the originating agency) control number shall be assigned to each transaction. For any transaction that requires a response, the respondent shall refer to this number in communicating with the originating agency.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
ANS	None		None

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionControlNumberID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.010: Transaction Control Reference (TCR)**

**Description:**

This optional field shall be used for responses that refer to the TCN of a previous transaction involving an inquiry or other action that required a response.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	See 1.009 TCN	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionControlReferenceNumberID

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.011: Native Scanning Resolution (NSR)**

**Description:**

This mandatory field shall be set to "00.00" if there are no Type-4 records in the transaction. See Section 8 for information concerning leading zeros. This field may be used to apply to Type-7 records if specified by the domain or application profile. The special character that is allowed is "." (the period). When there are Type-4 records present, this field is used to specify the native scanning resolution of the friction ridge image capture device. This field shall specify the resolution in pixels per millimeter. The resolution shall be expressed as two numeric characters followed by a decimal point and two more numeric characters. If Record Type-4 is used and images are scanned at greater than the class of 500 ppi, they shall be subsampled, scaled down, or interpolated down to produce a class resolution of 500 ppi for transmission. Users shall utilize Record Type-14 if transmitting a fingerprint image at greater than the limits of the 500 ppi class. Images with scanning resolution greater than or equal to the 1000 ppi class should not be transmitted using Record Type-4 unless being transmitted at 500 ppi class to a system incapable of receiving Type-14 records at 1000 ppi class or greater.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 5; X = 4	5	1	1
Character Types	Special Characters	Format	Constraints
NS	Period	##.##	NSR = 00.00 if no Type-4 records in transaction; otherwise xx.xx

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionImageResolutionDetails

NIEM Element: biom:NativeScanningResolutionValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.012: Nominal Resolution (NTR)**

**Description:**

This mandatory field shall be set to "00.00" if there are no Type-4 records in the transaction. This field may be used to apply to Type-7 records if specified by Type of Transaction. The special character that is allowed is "." (the period). When there are Type-4 records present, this field specifies the nominal resolution for the image(s) being exchanged. This field shall specify the resolution in pixels per millimeter (ppmm). The resolution shall be within the range 19.30 ppmm (490 ppi) to 20.08 ppmm (510 ppi). For example, a sensor that scans natively at 508 ppi would show both NSR and NTR as 20 ppmm (508 ppi). These images should not be sampled down to exactly 500 ppi. This field was called "Nominal transmitting resolution" in earlier versions of the standard. The mnemonic is still retained as NTR in this version. The 2007 version of the standard stated: "Any transmitting resolution within the range of the minimum scanning resolution to a value of 20.47 ppmm plus or minus 0.20 ppmm (520 ppi plus or minus 5 ppi) is permitted for the processing of high resolution records." This version of the standard specifically prohibits transmission resolution above 510 ppi (the upper limit of the 500 ppi class) for Type-4 records; a higher transmission resolution for Type-7 records may be specified by the application profile. (See Table 18 Class resolution with defined tolerance of the ANSI/NIST-ITL Update: 2015).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 5; X = 4	5	1	1
Character Types	Special Characters	Format	Constraints
NS	Period	##.##	NTR = 00.00 if no Type-4 records in transaction; otherwise xx.xx

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionImageResolutionDetails

NIEM Element: biom:NominalTransmittingResolutionValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.013: Domain Name (DOM)**

**Description:**

This optional field identifies the domain name for the user-defined Type-2 record implementation. The domain name may only appear once within a transaction. It shall consist of one or two information items. See Section 6 for more information and the relationship to Field 1.016: Application profile specifications / APS. All characters marked "A", "N" or "S" in the 'Type' column of Table 128 Character encoding set values of the ANSI/NIST-ITL Update: 2015 may be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionDomain

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.013\_1: Domain Name - Domain Name Implementation (DNM)**

**Description:**

The mandatory first information item (domain name / DNM) will uniquely identify the agency, entity, or implementation used for formatting the fields in the Type-2 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	For DoD EBTS, DNM = DoD EBTS

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionDomain

NIEM Element: itl:TransactionDomainName

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.013\_2: Domain Name - Domain Version Number (DVN)**

**Description:**

An optional second information item (domain version number / DVN) shall contain the unique version of the particular implementation, such as 4.1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	For DoD EBTS 4.1, DVN = 4.1

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionDomain

NIEM Element: itl:DomainVersionNumberID

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.014: Greenwich Mean Time (GMT)**

**Description:**

This optional field provides a mechanism for expressing the date and time of the transaction in terms of universal Greenwich Mean Time (GMT) units. See Section 7.7.2.2 of the ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDhhmmssZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: dod-ebts:TransactionUTCDate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.015: Character Encoding (DCS)**

**Description:**

This optional field specifies the character encoding that may appear within this transaction for data with the character type listed as "U" or 'user-defined' in the record format tables. This field shall contain one set of information items (coded as a subfield). For a description of the use of alternate character encoding see Section 5.6 of the ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a, TransactionCharacterSetType	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionCharacterSetDirectory

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.015\_0: Character Encoding - Subfield: A single set of information items (DCS\_0)**

**Description:**

This field indicates repeating subsets of the Character Encoding information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionCharacterSetDirectory

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-1: Transaction Information

**1.015\_1: Character Encoding - Character Encoding Set Index (CSI)**

**Description:**

This first information item (character encoding index / CSI) is the index number that references an associated character encoding. See the "Character encoding index" column of Table 4 of the ANSI/NIST-ITL Update: 2015 for the valid values for this information item.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ CSI ≤ 4 or 128 ≤ CSI ≤ 999 non-negative integer

Code List: TRANSACTION CHARACTER SET INDEX CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionCharacterSetDirectory

NIEM Element: itl:CharacterSetIndexCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.015\_2: Character Encoding - Character Encoding Set Name (CSN)**

**Description:**

The second information item (character encoding name / CSN) shall be the "Character encoding name" associated with that index number, taken from Table 4 of ANSI/NIST-ITL Update: 2015. All characters marked "A", "N" or "S" in the 'Type' column of Table 128 Character encoding set values of ANSI/NIST-ITL Update: 2015 may be used. Character Set Name '8-bit Latin' has been deprecated and should not be used. DoD EBTS v4.1 default character encoding is 7-bit ASCII; UTF-8 is also allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	16	1	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	CSN = ASCII, UTF-8, UTF-16 or UTF-32

Code List: TRANSACTION CHARACTER SET INDEX CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionCharacterSetDirectory

NIEM Element: itl:CharacterSetCommonNameCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.015\_3: Character Encoding - Character Encoding Set Version (CSV)**

**Description:**

The optional third information item (character encoding version / CSV) is the specific version of the character set used. In the case of the use of UTF-8, the third optional information item may be used to hold the specific version used, so that the display terminal can be switched to the correct font family.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionCharacterSetDirectory

NIEM Element: itl:CharacterSetVersionID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.016: Application Profile Specifications (APS)**

**Description:**

Use of this optional field indicates the transaction's conformance with one or more Application Profile Specifications that are derived from ANSI/NIST-ITL 1-2011, such as EBTS or INT-I. There may be multiple subfields, each designating an application profile to which this transaction conforms. If multiple Application Profile Specifications are included in this field, the specifications must be compatible with each other. This transaction must be in conformance with all of the cited specifications. See Section 6 of the ANSI/NIST-ITL Update: 2015. Each subfield shall consist of three mandatory information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionApplicationProfile

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.016\_0: Application Profile Specifications - Subfields: Repeating sets of information items (APS\_0)**

**Description:**

Mandatory Subfields of Application Profile Specifications: Repeating sets of information items 1 to 100

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	99
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionApplicationProfile

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**1.016\_1: Application Profile Specifications - Application Profile Organization (APO)**

**Description:**

The first information item (application profile organization / APO) will uniquely identify the agency or entity responsible for the specification.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	For DoD EBTS, APO = DFBA

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionApplicationProfile

NIEM Element: biom:ApplicationProfileOrganizationName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.016\_2: Application Profile Specifications - Application Profile Name (APN)**

**Description:**

The second information item (application profile name / APN) shall contain the name of the specification.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	For Baseline Application Profile, APN = ToT

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionApplicationProfile

NIEM Element: biom:ApplicationProfileName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.016\_3: Application Profile Specifications - Application Profile Version Number (APV)**

**Description:**

The third information item (application profile version number / APV) shall contain the specific version of the specification.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	For Baseline Application Profile, APV = 4.1

Source: ANSI/NIST ITL 1-2011 Update: 2015, DFBA

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionApplicationProfile

NIEM Element: itl:ApplicationProfileVersionNumberID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.017: Agency Names (ANM)**

**Description:**

This optional field is comprised of two optional information items. Both information items are alphanumeric and can have any special characters in the names.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionDestinationAgency

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.017\_1: Agency Names - Destination Agency Name (DAN)**

**Description:**

The first is the destination agency name / DAN. This corresponds to the agency listed in Field 1.007: Destination agency identifier / DAI.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionDestinationAgency

NIEM Element: itl:AgencyName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-1: Transaction Information

**1.017\_2: Agency Names - Originating Agency Name (OAN)**

**Description:**

The second optional information item is the originating agency name / OAN. This corresponds to the agency listed in Field 1.008: Originating agency identifier / ORI.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction/itl:TransactionOriginatingAgency

NIEM Element: itl:AgencyName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**1.018: Geographic Name Set (GNS)**

**Description:**

This optional field is used if the transaction uses GENC in lieu of ISO 3166-1 as a code set for country code specifications. ISO 3166-1 is the default country code set used for the transaction when this field is not contained in Record Type-1. GENC is available at <https://nsgreg.nga.mil/gencl/register.jsp>. The values for this field are: ISO = ISO 3166-1 (default) GENC = GENC. Information items affected by this choice have "Values from ISO 3166-1 or GENC" specified in the value constraints.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	GNS = ISO, GENC

Code List: GEOGRAPHIC NAME SET CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord/itl:Transaction

NIEM Element: itl:TransactionGeographicNameSetCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.001: Record Header**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

<b>Field Minimum</b> T = 2; X = 1	<b>Field Maximum</b> T = 8; X = 2	<b>Occurrence Minimum</b> 1	<b>Occurrence Maximum</b> 1
<b>Character Types</b> N	<b>Special Characters</b> N/A	<b>Format</b> N/A	<b>Constraints</b> positive integer; X = <RecordCategoryCode>

Source: ANSI/NIST ITL 1-2011 (Update 2015) Type-2

Status: Active

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

<b>Field Minimum</b> 1	<b>Field Maximum</b> 2	<b>Occurrence Minimum</b> 1	<b>Occurrence Maximum</b> 1
<b>Character Types</b> N	<b>Special Characters</b> N/A	<b>Format</b> N/A	<b>Constraints</b> 0 <= IDC <= 99; integer

Source: ANSI/NIST ITL 1-2011 (Update 2015) Type-3

Status: Active

XML Level 1: itl:PackageDescriptiveTextRecord

Cardinality: 1..1

XML Level 2: biom:ImageReferenceID

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.003: FBI File Number (FFN)**

**Description:**

This is a 10-byte numeric representing the FBI Investigative File Number. This is not the FBI Number specified by the mnemonic "FBI." Since it is used for FBI LFPS record keeping purposes, it is imperative that the user transmit this number if known.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
10	10	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Sunset

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0...1

XML Level 2: ebts:FBIFileNumber/nc:IdentificationID

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.005: Retention Code (RET)**

**Description:**

This field indicates whether the information submitted as a part of a transaction is to be retained as a permanent part of the Master File. Submit a 'Y' for yes or an 'N' for no.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODE

Source: NGI-DOC-01078-10.1

Status: Active

XML Level 1: dod-ebts:RecordRetentionIndicator

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.006: Attention Indicator (ATN)**

**Description:**

This alphanumeric-special field shall contain a designation of the individual to whose attention a response is to be directed. Periods shall not be used e.g., Det. J. Q. Public shall be entered as DET J Q PUBLIC. The value of ATN returned to the submitter is the value submitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	30	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: dod-ebts:AttentionIndicator

Cardinality: 0..1

XML Level 2: nc:TextType

Cardinality: 0..1

DoD EBTS 1.2:	Yes	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.007: Send Copy to (SCO)**

**Description:**

The purpose of this 9-to-19-character alphanumeric-special ANS field is to indicate that additional electronic responses need to be forwarded to agencies other than the contributor by the State Identification Bureau. The first nine characters shall be alphanumeric and shall contain the NCIC-assigned Originating Agency Identifier ORI for an agency who is to receive a copy of the response. At the option of the transmitting agency, the ORI may be expanded to a size of 19 characters, with 10 characters of alphanumeric-special (ANS) data appended to the end to assist in proper routing of the responses. listed in the "SEND COPY TO" block

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
9	19	0	9
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: dod-ebts:RecordForwardOrganizations

Cardinality: 0..1

XML Level 2: nc:OrganizationIdentification

Cardinality: 0..9

DoD EBTS 1.2:	Yes	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.009: Originating Agency Case Number (OCA)**

**Description:**

This field contains the one-to-twenty character Originating Agency Case Identifier OCA assigned by the originating agency. This alphanumeric-special ANS field may contain any printable 7-bit ASCII character with the exception of the period. The OCA must not begin with a blank.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 3: nc:CaseTrackingID

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.010: Contributor Case Identifier Number (CIN)**

**Description:**

This grouped free-text field is a 48-byte maximum alphanumeric-special assigned by the contributor to uniquely identify a latent case. It consists of: a literal subfield Contributor Case Prefix CIN\_PRE of up to 24 characters e.g., "Incident #, "Laboratory Number," "Investigation No."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	5
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:ContributorCaseIdentificationNumber

Cardinality: 0..5

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.010\_0: Contributor Case Identifier Number - Subfields: Repeating sets of information items (CIN\_0)**

**Description:**

Repeating subfield for Contributor Case Identifier Number

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	1	5
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:ContributorCaseIdentificationNumber

Cardinality: 1..5

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.010\_1: Contributor Case Identifier Number - Contributor Case Identifier Prefix (CIN\_PRE)**

**Description:**

Literal subfield Contributor Case Prefix (CIN\_PRE) of up to 24 characters (e.g., "Incident #," "Laboratory Number," "Investigation No.")

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	24	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:ContributorCaseIdentificationNumber

Cardinality: 1..5

XML Level 3: ebts:ContributorCasePrefixIdentification/nc:IdentificationID

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.010\_2: Contributor Case Identifier Number - Contributor Case Identifier (CIN\_ID)**

**Description:**

The Contributor Case Identifier subfield (CIN\_ID) of up to 24 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	24	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:ContributorCaseIdentificationNumber

Cardinality: 1..1

XML Level 3: ebts:ContributorCaseIdentification/nc:IdentificationID

Cardinality: 1..1

DoD EBTS 1.2: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.011: Contributor Case Identifier Extension (CIX)**

**Description:**

An element that supplements the Case Identifier Number, allowing multiple searches to be associated with the same case. This field is a two-byte to four-byte numeric supplement to the Case Identifier Number that allows multiple searches to be associated with the same case. The CIX shall be used only in conjunction with the CIN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	4	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.1

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:ContributorCaseIdentificationNumber

Cardinality: 0..1

XML Level 3: ebts:ContributorCaseExtensionIdentification/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.013: Latent Case Number Extension (LCX)**

**Description:**

Defines extensions assigned by the FBI for each submission related to a Latent Case Number. The LCX shall be a five-digit extension starting with "00000" for the first submission and incrementing by one for each subsequent submission. The LCX shall be used only in conjunction with LCN. As this field is for FBI LPS internal use only, this response field will be used for record-keeping purposes only.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	5	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Sunset

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..11

XML Level 2: ebts:FBILatentCaseIdentification

Cardinality: 0..1

XML Level 3: ebts:FBILatentCaseNumberExtension/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.014: FBI Number UCN (FBI)**

**Description:**

This field is used to uniquely specify Identities contained in the NGI database, and shall be no more than nine alphanumeric characters. This Universal Control Number (UCN) is used to identify records in the criminal, civil, ULF and other repositories. The UCN number returned in a response is dependent upon the search results. The Legacy Subject Control Number (SCNA) used for ULF records may be provided in this field where designated in the message definition.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1000
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: j:PersonFBIIdentification/nc:IdentificationID

Cardinality: 0..1000

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.015: State Identification Number (SID)**

**Description:**

This field contains any known state identification number. The native encoding format is the standard two-character abbreviation of the state name followed by the number. Embedded blanks are not permitted. SIDs from New York, Oregon, or Pennsylvania may contain a hyphen in the last position. The SID returned in a response is dependent upon the search results. FBI IAFIS expects the format to be the standard two-character abbreviation of the state name followed by the number.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	10	0	1000
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonStateIdentification/nc:IdentificationID

Cardinality: 0..1000

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.016: Social Security Account Number (SOC)**

**Description:**

This field contains the subject's social security number, if known. This number shall be entered as nine consecutive digits with no embedded punctuation characters. No foreign social security numbers shall be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
9	9	0	4
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonSSNIdentification/nc:IdentificationID

Cardinality: 0..4

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.017: Miscellaneous Identification Number (MNU)**

**Description:**

If there are any miscellaneous identification numbers, they shall be entered in this field. The format of the data shall be a two-letter identifying code, followed by a hyphen -, followed by the number itself. The size of the MNU is limited to 15 characters and as many as four miscellaneous numbers may be included in this field. Each MNU shall be separated from the next by the {RS} separator character. See look up type and associated codes for the list of acceptable two-letter identifying codes. If "AF" or "AS" is entered, all characters following the hyphen must be numeric. Interspersed blanks are invalid. Types of numbers not listed in the MISCELLANEOUS IDENTIFICATION NUMBER CODE table shall not be entered. Only U.S. passport numbers shall be entered; foreign numbers shall be ignored. For the list of 2 letter identifying code, see look up codes below.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	15	0	4
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Code List: MISCELLANEOUS IDENTIFICATION NUMBER CODE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0...1

XML Level 2: nc:PersonOtherIdentification

Cardinality: 0...4

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.018: Name Legacy (NAM)**

**Description:**

This alpha-special field contains the names of the subject. The format shall be the surname followed by a comma, followed by the given names, which are separated by a space. Part IV of the NCIC Code Manual describes in greater detail the manner in which each name is to be entered. Hyphens, commas, and blanks are all allowed as special characters. Numerics are not allowed. Special values of NAM to be entered in cases where the subject's name is not known are listed in the NAME look up code table.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	NCIC Name Format: <surname>,<given name1>, <given name2> ...	N/A

Code List: NAME

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonName

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.018\_1: Name Legacy - Surname (NAM1)**

**Description:**

A last name or family name of a person.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	50	1	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonName

Cardinality: 0..1

XML Level 3: nc:PersonSurName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No



Type-2: User-Defined Descriptive Text

**2.018\_2: Name Legacy - Given Name (NAM2)**

**Description:**

A first name of a person.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	50	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonName

Cardinality: 0..1

XML Level 3: nc:PersonGivenName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.018\_3: Name Legacy - Middle Name (NAM3)**

**Description:**

A middle name of a person.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	50	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonName

Cardinality: 0..1

XML Level 3: nc:PersonMiddleName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

Type-2: User-Defined Descriptive Text

**2.019: Aliases Legacy (AKA)**

**Description:**

This 3-to-30 alpha-special AS field contains alias names of the subject. Up to ten aliases may be provided, separated from one another by the {RS} character. AKA may contain a comma, hyphen, or blank as special characters. The format shall be the surname followed by a comma, followed by the given names separated by a space. The following restrictions and exceptions to the general format apply (the first three apply only to the traditional encoding): 1. Minimum length is three bytes in the following sequence: alpha or ampersand, comma, or alphabetic. 2. A comma must be followed by a minimum of one alphabetic character. 3. A blank before or after comma is invalid. 4. A hyphen in first and last position of any name segment is invalid. 5. Two consecutive blanks or hyphens between characters are invalid.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	50	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonAlternateName

Cardinality: 0..10

XML Level 3: nc:PersonGivenName, nc:PersonMiddleName, nc:PersonSurName, ebts:PersonFourthImportanceName, ebts:PersonFifthImportanceName

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.020: Place of Birth (POB)**

**Description:**

The subject's place of birth shall be entered in this field. Indicate in this POB field the state Mexican, United States, territorial possession, province Canadian, or country of birth. The appropriate two-letter abbreviation shall be used as listed in Part IV of the NCIC State and Country Data Code Table (Appendix O NGI-DOC-01078-10.0).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: PLACE OF BIRTH CONDITIONS and Appendix O NGI-DOC-01078-10.0

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonBirthPlaceCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.021: Country of Citizenship (CTZ)**

**Description:**

This field contains two-letter abbreviation for the name of the country of which the subject is a citizen. Entry must be a valid country code from the NCIC State and Country Data Code Table found in Appendix O [of FBI EBTS10.0].

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	10
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: Appendix O NGI-DOC-01078-10.0

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonCitizenshipCode

Cardinality: 0..10

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.022: Date of Birth (DOB)**

**Description:**

This field contains the date of birth. It is entered as an eight-digit number in the same format as specified in Section 1.1 of this appendix [in FBI EBTS 9.1]. If DOB is completely unknown, enter as 00000000. Partial DOBs are not allowed. DOB shall not exceed date of submission after time zone adjustment. When a submission contains an unknown DOB and is a non-ident retained, that submission will be rejected, as IAFIS will not allow a master record to be created with an unknown DOB.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	0	5
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonBirthDate/nc:Date

Cardinality: 0..5

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

Type-2: User-Defined Descriptive Text

**2.023: Age Range (AGR)**

**Description:**

An estimated age range may be entered using a pair of two-digit numbers. The first two digits shall represent the minimum age, and the second two the maximum. There shall be no separator character used between the ages.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonAgeMeasure

Cardinality: 0..1

XML Level 3: nc:MeasureIntegerRange/nc:RangeMinimumValue/nc:RangeMaximumValue

Cardinality: 0..1

DoD EBTS 1.2: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.024: Sex (SEX)**

**Description:**

This field is used to report the gender of the subject. The entry is a single character selected from the GENDER CODES table in Appendix A of the EBTS IDD v6.0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: GENDER CODES

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonSexCode

Cardinality: 0..1

DoD EBTS 1.2: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.025: Race Legacy (RAC)**

**Description:**

This field is used to indicate the race of the subject. Use the predominant race code from the [look up codes].

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: RACE

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonRace

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.026: Scars, Marks and Tattoos (SMT)**

**Description:**

For each scar, mark, or tattoo present on the subject, the appropriate NCIC code shall be used in this information item. Blanks are allowed as special characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	10	0	10
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: NCIC DESTINATION

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: biom:PhysicalFeatureCategoryCode

Cardinality: 0..10

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.027: Height Legacy (HGT)**

**Description:**

This field contains the subject's height as a three-character value. If reported in feet and inches, the first leftmost digit is used to show feet while the two rightmost digits are used to show the inches between 00 and 11. If reported in inches then the left most character is "N" followed by two digits. If height is unknown, 000 is entered. The allowable range is 400 to 711. Heights outside this range will be clamped at these limits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonHeightMeasure

Cardinality: 0..1

XML Level 3: nc:MeasureValue/nc:MeasureUnitText

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.028: Height Range (HTR)**

**Description:**

This field will be used to give an estimated height range to be expressed as two three-character values formatted as described for mnemonic HGT, indicating the shortest and tallest heights of the subject. For the native encoding of this field, the first three characters shall represent the minimum height and the second three the maximum height. There shall be no separator character used between the heights. The allowable range is 400 to 711 or N48 to N95

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	1	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonHeightMeasure

Cardinality: 0..1

XML Level 3: nc:MeasureRangeValue/nc:RangeMinimumValue/nc:RangeMinimumValue/

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

Type-2: User-Defined Descriptive Text

**2.029: Weight Legacy (WGT)**

**Description:**

In this field, the subject's weight in pounds is entered. If weight is unknown, 000 is entered. All weights in excess of 499 pounds will be set to 499 lbs. WGT must be in the range 050 to 499 lbs. however, there is no minimum range limit for missing persons or unknown persons.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonWeightMeasure

Cardinality: 0..1

XML Level 3: nc:MeasureValue

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.030: Weight Range (WTR)**

**Description:**

If a range of weight is given, it shall be expressed as two 3-digit numbers indicating the minimum and maximum weights in pounds of the subject. There shall be no separator character used between the weights. WTR must be in the range 050 to 499 lbs however, there is no minimum range limit for missing persons or unknown persons.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonWeightMeasure

Cardinality: 0..1

XML Level 3: nc:PersonWeightMeasure/ nc:MeasureRangeValue or nc:RangeMaximumValue

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

Type-2: User-Defined Descriptive Text

**2.031: Color Eyes (EYE)**

**Description:**

For this field, the three-letter code from the following table is used to indicate the subject's color of eyes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: ALPHA EYE COLOR CODES

Source: NGI-DOC-01078-10.0

Status: Deprecated

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:PersonEyeColorCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.032: Hair Color (HAI)**

**Description:**

In this field, the three-letter code is used to indicate the subject's color of hair.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: HAIR COLOR

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: j:PersonHairColorCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.034: Pattern Level Classifications (PAT)**

**Description:**

This grouped field contains pattern classification information about the latent finger(s) image. As such, this field shall only be included when one or more of finger positions 0-10 are being searched. PAT shall consist of two-character finger position code followed by the primary pattern type code as chosen from the following table. Up to two reference pattern classifications per finger are also allowed, thereby making the total number of pattern classes allowable per finger equal to three. For traditional encoding, if multiple pattern types are used for reference for the same finger, they shall be separated from each other by the {US} separator. Multiple fingers shall be separated by the {RS} separator. If submitting a Latent Fingerprint whose actual finger position is unknown, the PAT and FGP (2.074) fields are used in conjunction as follows to supply guesses for which finger position the latent print might be: place a "00" in the FGP subfield of PAT to indicate the actual position is unknown; place the actual pattern in the PATCL subfield; place one or more finger number guesses in the FGP field (2.074).

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.034\_0: Pattern Level Classifications - Subfields: Repeating sets of information items (PAT\_0)**

**Description:**

Repeating subfield for Pattern Level Classifications

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	1	10
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 1..10

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.034\_1: Pattern Level Classifications - Finger Number (FGP)**

**Description:**

This two-byte field shall contain a character designating the finger position.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: FINGERPRINT TEN FINGER NUMBER PLUS UNKNOWN

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 1..10

XML Level 3: ebts:FingerprintImageFinger

Cardinality: 1..10

XML Level 4: ansi-nist:FingerPositionCode

Cardinality: 1..10

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.034\_2: Pattern Level Classifications - Pattern Classification Code (PATCL)**

**Description:**

The list of acceptable CJIS pattern level fingerprint classifications.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	3
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: FINGERPRINT CJIS PATTERN CLASSIFICATION

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 1..10

XML Level 3: ebts:PersonFingerprintSet/ ebts:FingerprintImageFinger/

ebts:RidgeCoreDelta/ebts:FingerprintPatternClassificationCode

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.035: Palmprints Available Indicator (PPA)**

**Description:**

If palm prints are available, this field shall contain a "Y"; otherwise, the field shall be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: PALM PRINT AVAILABLE INDICATOR

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonPalmPrintAvailableIndicator

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.038: Date Printed (DPR)**

**Description:**

This field contains the date that the subject was printed. This date field shall contain the local date for the region submitting the request. DPR shall not exceed the date of submission.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonGeneralizedFrictionRidgePositions

Cardinality: 0..1

XML Level 3: nc:BiometricCaptureDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.039: Employer and Address (EAD)**

**Description:**

The name and address of the subject's primary employer may be entered into this free-text field. The EAD returned in a response is the same as the one submitted. For the native encoding, this field is a free form text field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	120	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:Employer

Cardinality: 0..1

XML Level 3: nc:EntityOrganization/nc:OrganizationName

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.040: Occupation (OCP)**

**Description:**

This free-text field contains the person's occupation. The OCP returned in a response is the same as the one submitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: nc:EmployeeOccupationText

Cardinality: 0..1

XML Level 3: nc:EmploymentLocation/ nc:LocationAddress/nc:StructuredAddress/nc:LocationStreet/ nc:StreetNumberText or nc:StreetName, nc:EmploymentLocation/ nc:LocationAddress/ nc:StructuredAddress/ nc:LocationStreet/nc:StreetName, nc:EmploymentLocation/ nc:LocationAdd

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.041: Residence of Person Fingerprinted (RES)**

**Description:**

This is a free-text field, including printable special characters and formatting characters (CR, LF, TAB) that is used for the residential address of the person fingerprinted. The RES returned in a response is the same as the one submitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	120	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonResidenceLocation

Cardinality: 0..1

XML Level 3: ebts:PersonResidenceLocation/ nc:LocationAddress/ nc:StructuredAddress/ nc:LocationStreet/nc:StreetNumberText or nc:StreetName, ebts:PersonResidenceLocation/ nc:LocationAddress/ nc:StructuredAddress/nc:LocationCityName or nc:LocationStateNCICLSTAC

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.042: Military Code (MIL)**

**Description:**

A one-letter code from the following table shall be entered in this field to indicate which branch of the United States Military submitted the enlistment transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: MILITARY

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: dod-ebts:TransactionSubmissionMilitaryCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.043: Type of Search Requested (TSR)**

**Description:**

A one-byte code shall be entered in this field from the Type of Search Codelist to indicate the type of record being submitted. The field is applicable to the NFUF, CPDR, FNDR, NNDR, CPNU, DOCE, EMUF, NFAP, and NFUE transactions.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: TYPE OF SEARCH

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionSearchRequestCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.045: Date of Arrest (DOA)**

**Description:**

This field contains the date of arrest. The date shall appear as an eight-digit number. DOA shall not exceed date of submission except when the submission originates from an international contributor located in a time zone earlier than the Eastern Time Zone. This date field shall contain the local date for the region submitting the request.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:ArrestDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.046: Date of Arrest - Suffix (DOS)**

**Description:**

This field contains a code representing the sequence of the subject's arrests within a given date. The code also indicates the type of fingerprint card on which the Date of Arrest was contained. This field is for internal use within the FBI only.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:ArrestDateSuffixCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.047: Arrest Segment Literal (ASL)**

**Description:**

This field is made up of the following subfields: Date of Offense DOO Arrest Offense Literal AOL.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..1

XML Level 3: ebts:ArrestOffenseData

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.047\_0: Arrest Segment Literal - Subfields: Repeating sets of information items (ASL\_0)**

**Description:**

Repeating subfield for Arrest Segment Literal

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	40
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.047\_1: Arrest Segment Literal - Date of Offense (DOO)**

**Description:**

The DOO shall appear as an eight-digit number. The DOO shall not exceed the current date except when the submission originates from an international contributor located in a time zone earlier than the Eastern Time Zone. This date field shall contain the local date for the region submitting the request. CJIS has edit checks in place to allow for the acceptance of the local date as valid up to 24 hours in advance to accommodate the variance between international time zones. The DOO shall be separated from the AOL by the {US} separator character. A DOO is prohibited without a corresponding AOL offense. If a DOO is not present, a {US} character separator shall still be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:OffenseDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.047\_2: Arrest Segment Literal - Arrest Offense Literal (AOL)**

**Description:**

A free text description of an offense charged on an arrest. The first character of the AOL text must not be blank. Each AOL should have a corresponding DOO.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: j:ChargeText

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.051: Court Segment Literal (CSL)**

**Description:**

The CSL field is made up of the Court Disposition Date CDD, the Court Offense Literal COL, Other CourtSentence Provision Literal CPL, Court Disposition (CDN) and Court Count Number (CCT). A CDD (if available), followed by a COL, followed by a CPL, followed by a CDN, followed by CCT (if available), each separated by a {US} separator character must be present for each occurrence of the CSL field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CourtDispositionData

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.051\_0: Court Segment Literal- Subfields: Repeating sets of information items (CSL\_0)**

**Description:**

Repeating subfield for Court Segment Literal

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	40
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CourtDispositionData

Cardinality: 0..40

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.051\_1: Court Segment Literal - Court Disposition Date (CDD)**

**Description:**

The date a court count was disposed of by the court. The CDD shall appear as an eight-digit number. The CDD shall not exceed the current date except when the submission originates from an international contributor located in a time zone earlier than the Eastern Time Zone. This date field shall contain the local date for the region submitting the request.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CourtDispositionData

Cardinality: 0..40

XML Level 4: nc:DispositionDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.051\_2: Court Segment Literal - Court Offense Literal (COL)**

**Description:**

A freeform text description of an offense charged in a court count. The first character of the COL must not be a blank.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CourtDispositionData

Cardinality: 0..40

XML Level 4: j:ChargeText

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.051\_3: Court Segment Literal - Other Court Sentence Provision Literal (CPL)**

**Description:**

The freeform text containing information on sentence provisions.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CourtDispositionData

Cardinality: 0..40

XML Level 4: nc:DispositionText

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.051\_4: Court Segment Literal - Court Disposition (CDN)**

**Description:**

A code from Table 12 of NGI-DOC-01078-10.0 representing the definitive disposition information about a Subject for a particular charge. This element must contain a value most closely associated with the disposition type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	32	1	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: CDN VALUES CODES

Source: NGI-DOC-01078-10.0

Status: New-Emerging

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CourtDispositionData

Cardinality: 0..40

XML Level 4: ebts:DispositionCategoryCodeText

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.051\_5: Court Segment Literal - Court Count Number (CCT)**

**Description:**

A two-byte sequential number assigned to each court count, with the valid value range from 01 to 40.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	>1 and <= 40

Source: NGI-DOC-01078-10.0

Status: New-Emerging

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CourtDispositionData

Cardinality: 0..40

XML Level 4: ebts:CourtCountNumber

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.053: Offense Category (OFC)**

**Description:**

The category for a crime committed by the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: OFFENSE CATEGORY

Source: NGI-DOC-01078-10.0

Status: Sunset

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:OffenseCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.054: Custody or Supervisory Status Start Date (SSD)**

**Description:**

This field contains the start date for the subject’s indicated custody or supervisory status. The date shall appear as an eight-digit number. The SSD may not be less than Date Of Arrest. The SSD shall not exceed the current date except when the submission originates from an international contributor located in a time zone earlier than the Eastern Time Zone. This date field shall contain the local date for the region submitting the request. The SSD may not be less than DOA. The SSD shall not exceed the current date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CustodySupervisoryData

Cardinality: 0..1

XML Level 4: nc:StartDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.055: Custody or Supervisory Literal (SLE)**

**Description:**

This field contains the free-text description of the subject's custody or supervision status. The first character must not be blank. Entry of SLE requires that SSD also be entered.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:CriminalCycle

Cardinality: 0..40

XML Level 3: ebts:CustodySupervisoryData

Cardinality: 0..1

XML Level 4: ebts:SupervisionStatus(0..1)/nc:StatusText(0..1)

Cardinality: 0..1

DoD EBTS 1.2: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.056: Identification Comments (ICO)**

**Description:**

Additional miscellaneous identification remarks. The reason for caution may be entered in this free-text field. The first character may not be a blank.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: j:SubjectOffenderNoticeText

Cardinality: 0..1

DoD EBTS 1.2: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.057: Finger Numbers Requested (FNR)**

**Description:**

This numeric field is used in transactions involving a request for fingerprint image information. The finger numbers for which image information is requested are selected from Table, "Finger Position Code," in the ANSI/NIST-ITL. Up to 13 individual finger image numbers may be listed, separated from one another by the <RS> separator. For traditional encoding, the finger codes being requested shall appear as 01{RS}02{RS} ... {RS}10{GS}. This field may also include the supplemental position code of 19 and/or the palm position codes outlined in the associated codelist.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	13

Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: PALM POSITION and FINGER POSITION CODE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionFingerprintImagesRequested/ansi-nist:FingerPositionCode

Cardinality: 0..13

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.059: Search Results Findings (SRF)**

**Description:**

This field is used in responses to submissions and contains a single character indicating the results of a comparison. See Look Up Codes, which outlines the valid values, their meanings, and transactions which may contain those values. SRF values that are specific to a single request TOT reflect the request and response TOTs with a dash between them (e.g., FDSP-SRE), where only the response TOT contains the SRF field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1

Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: SEARCH RESULT FINDING

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: ebts:TransactionSearchResultsCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.060: Status/Error Message (MSG)**

**Description:**

This free-text field will contain reason, status, or error messages that are generated as a result of the processing of a transaction and will be sent back to the submitter. For example, an Unsolicited Unsolved Latent Delete transaction will contain the reason for the deletion of a record. For native encoding, each message will be separated by the RS separator character.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1000
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: ebts:TransactionStatusText

Cardinality: 0..1000

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.061: Case Title (CST)**

**Description:**

This field identifies the Latent Case. It will include information concerning the case, and it must include the offense type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: nc:CaseTitleText

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.062: Image Type (IMT)**

**Description:**

This field identifies the type of image e.g., palmprints, toe prints included in an electronic submittal. The list of IMT values to be used in an electronic latent submittal to identify the Type-7 or Type-13 records present. The field definition has been modified to allow multiple occurrences in one transaction. The following table is a list of IMT values to be used to identify the records present or biometric sets being referenced in the submission or response. Note that the value of 2 is deprecated in favor of the new value of 6, and the values 4 and 5 are deprecated in favor of the new value of 7.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1000
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: BIOMETRIC IMAGE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordBiometricImageCategoryCode

Cardinality: 0...1000

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.064: Candidate List (CAN)**

**Description:**

This grouped field shall contain a candidate list. It is composed of two subfields: Universal Control Number / UCN and Name / NAM. For traditional encoding, each field will be separated by a {US} separator and will be provided for each candidate in the list. Commas, hyphens, and blanks are allowed in the NAM subfield as specified in the NCIC Message Book, Part 1. Each UCN and NAM set shall be separated from the next by the {RS} separator character. Note: The UCN can contain an FBI number if appropriate for that record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData (0...1)/ ebts:TransactionResponseData (0...1)

Cardinality: 0...1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0...3

XML Level 3: ebts:Candidate

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.064\_0: Candidate List - Subfields: Repeating sets of information items (CAN\_0)**

**Description:**

Repeating subfield for Candidate List.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	1	99
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionResponseData (0...1)

Cardinality: 0...1

XML Level 2: ebts:TransactionCandidateList (0...3)/ebts:Candidate (1...99)

Cardinality: 1...99

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.064\_1: Candidate List - Universal Control Number (SI)**

**Description:**

This conditional alphanumeric text field is used to identify the record with which the photos or images being requested are associated, to identify candidates in a candidate list, or otherwise identify individual subject records. The UCN can contain an FBI number FNU if appropriate for that record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionResponseData (0...1)

Cardinality: 0...1

XML Level 2: ebts:TransactionCandidateList (0...3)/ebts:Candidate (1...99)

Cardinality: 1...99

XML Level 3: j:PersonFBIIdentification/nc:IdentificationID

Cardinality: 1...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.064\_2: Candidate List - Name (NAM)**

**Description:**

This alpha-special field contains the names of the subject. The format shall be the surname followed by a comma , followed by the given names, which are separated by a space. Part IV of the NCIC Code Manual describes in greater detail the manner in which each name is to be entered. Numerics are not allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	30	1	1
Character Types	Special Characters	Format	Constraints
AS	N/A	NCIC Name Format: <surname>,<given name1><given name2> ...	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionResponseData (0...1)

Cardinality: 0...1

XML Level 2: ebts:TransactionCandidateList (0...3)/ebts:Candidate (1...99)

Cardinality: 1...99

XML Level 3: ebts:PersonName

Cardinality: 0...1

XML Level 4: nc:PersonGivenName (0...1), nc:PersonMiddleName (0...1), nc:PersonSurName (1...1)

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.065: Repository Statistics Response (RSR)**

**Description:**

This field contains a file generated by the NGI Latent Friction Ridge system that provides detailed statistics that can be used to estimate the level of penetration of the repository given a set of search parameters defined in the search request. This field is in the form of a large ASCII file that can contain up to 96,000 bytes of alphanumeric-special (ANS) data. This field contains five items separated by tab characters: 1. Parameter name 2. Parameter Value 3. The fraction of the Criminal file having that value of the parameter 4. The fraction of the Civil file having that value of the parameter 5. The fraction of the combined Criminal and Civil files having the value of the parameter. In the traditional encoding formatting, the fields are separated with "whitespace" (spaces and/or tabs) with MS DOS end-of-line convention (CR/LR). A period character is used as a decimal point in the fraction values. The value should be interpreted as the proportion of records matching that category and code. Data rows containing all zeroes will not be returned.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	96000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Code List: REPOSITORY STATISTICS RESPONSE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData (0...1)/ ebts:TransactionResponseData (0...1)

Cardinality: 0...1

XML Level 2: ebts:TransactionRepositoryResponse

Cardinality: 0...1

XML Level 3: ebts:TransactionRepositoryResponseRecord

Cardinality: 1...\*

XML Level 4: ebts:RepositoryParameterText (1...1), ebts:RepositoryParameterValueText (1...1), ebts:RepositoryCriminalParameterPercent (1...1), ebts:RepositoryCivilParameterPercent (1...1), ebts:RepositoryCombinedParameterPercent1 (1...1)

DoD EBTS 1.2:	Yes	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.067: Image Capture Equipment (IMA)**

**Description:**

This free text field is used to log the make, model, and serial number of the equipment used to acquire images. It is a grouped field, comprised of three subfields: the Make MAK, Model MODL, and Serial Number SERNO of the acquisition device, separated by the {US} separator character.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordImageCaptureDetail

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.067\_1: Image Capture Equipment - Image Capture Equipment Legacy Derivable (MAK)**

**Description:**

The Make of the acquisition device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	25	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordImageCaptureDetail

Cardinality: 0..1

XML Level 2: ansi-nist:CaptureDeviceMakeText

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.067\_2: Image Capture Equipment - Originating Fingerprint Reading System Model Legacy Derivable (MODL)**

**Description:**

The Model of the acquisition device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	25	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordImageCaptureDetail

Cardinality: 0..1

XML Level 2: ansi-nist:CaptureDeviceModelText

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.067\_3: Image Capture Equipment - Originating Fingerprint Reading System Model Legacy Derivable (SERNO)**

**Description:**

The Serial Number of the acquisition device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordImageCaptureDetail

Cardinality: 0..1

XML Level 2: ansi-nist:CaptureDeviceSerialNumberText

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.070: Request for Electronic Rap Sheet (RAP)**

**Description:**

The purpose of this field is to allow the contributor to optionally request an electronic identity history summary (IdHS) of the identity. An NIDR is returned if the submission results in a nonidentification. A 'Y' in this field indicates that an IdHS is desired, while an omitted field or an 'N' in this field indicates that no IdHS should be returned with the response.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODES

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: dod-ebts:RecordRapSheetRequestIndicator

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.071: Action to be Taken (CAN)**

**Description:**

This field is used to include text answers to submission requests to indicate that a latent case will be established or to indicate recommendations for further actions in either latent or tenprint responses. This field will also be used to indicate action taken by the FBI in response to electronic document e.g., disposition submissions. For the native encoding of this field, commas, hyphens, ampersands, slashes, number signs, and blanks are all allowed as special characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
0	300	0	1
Character Types	Special Characters	Format	Constraints
ANS	T = Comma, Hyphen, Ampersand, Slash, Number Sign, Blanks	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: ebts:TransactionActionText

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.072: Fingerprint Images Updated (FIU)**

**Description:**

This field contains the finger positions that were updated in the FBI's Fingerprint Image Master File as a result of an electronic request to update fingerprint images. The finger numbers for which image information is requested are selected from Table, "Finger Position Code," in the ANSI/NISTITL. Up to 13 individual finger numbers may be listed. For encoding, each finger number will be separated from one another by the {RS} separator. If images of all 14 fingers were updated, the single character "A" is shown instead of individual finger numbers. If no images were updated, an 'N' will be returned.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	13

Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: FINGERPRINT IMAGE UPDATED CODES

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData/ebts:TransactionFingerprintImagesUpdated

Cardinality: 0..1

XML Level 2: ansi-nist:FingerPositionCode

Cardinality: 0..13

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.073: Controlling Agency Identifier (CRI)**

**Description:**

In Criminal and Civil transactions, the first instance of this field (CRI1) shall contain the Originating Agency Identifier (ORI) of the organization controlling the transaction. The CRI may be different from the submitting agency's ORI (e.g., the CSA), which shall be placed in the ORI field. When the controlling agency is also the submitting agency, both the ORI and CRI fields shall be submitted with the same identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
9	9	0	3

Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:RecordControllingAgency

Cardinality: 0..3

XML Level 3: nc:OrganizationIdentification/nc:IdentificationID

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.074: Finger Numbers Requested - Finger Position (FGP)**

**Description:**

This field is used for latent submissions and searches and contains the fingerprint position code of the latent prints submitted. If more than one finger is submitted with native encoding, then the codes will be separated by the {RS} character separator. For latent searches, if multiple fingerprint images are included in one search, finger position is mandatory for all images. If finger position is unknown, the search may contain only a single image, and the field FGP will be omitted or may contain multiple guesses at the correct finger position in the FGP field. In this case, the PAT field must contain "00" in its Finger Number subfield to indicate that the actual position is unknown (see also PAT entry). If the submitter cannot determine what portion of the hand the latent image was derived from, then the position code should be omitted or "18" to spawn a search of all friction ridge areas (fingerprints, palm prints, supplemental prints) within the FBI/CJIS repository. If the submitter cannot determine what portion of the hand the latent image was derived from, then the position code should be omitted or "18" to spawn a search of all friction ridge areas (fingerprints, palm prints, supplemental prints) within the FBI/CJ

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	10
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: FRICTION RIDGE GENERALIZED POSITION

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: biom-4.0.1:FingerPositionCode

Cardinality: 0...10

<b>DoD EBTS 1.2:</b> No	<b>DoD EBTS 3.0:</b> Yes	<b>DoD EBTS 4.0:</b> Yes	<b>DoD EBTS 4.1:</b> Yes
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Type-2: User-Defined Descriptive Text

**2.075: Electronic Rap Sheet (ERS)**

**Description:**

This field shall contain the Electronic Identity History Summary (IdHS) of an identified subject. In the case of a non-identification, the IdHS will consist of the Non-Identification Response (NIDR). For a TPRR transaction that contains multiple candidates, the IdHS for each candidate will be concatenated into this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	200000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTf\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: ebts:TransactionElectronicRapSheetText

Cardinality: 0..1

XML Level 4: ebts:TransactionBiometricImageEnrollmentRecordList

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.078: Penetration Query Response (PEN)**

**Description:**

This field provides a response to the penetration query that includes a set of search parameters for a new search. The response will be an estimated size, in percentage, of the repository that will be searched given the input parameters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	0	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Sunset

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: ebts:TransactionPenetrationQueryResponsePercent

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: No

Type-2: User-Defined Descriptive Text

**2.079: Number of Candidates' Images Returned (NCR)**

**Description:**

This field contains the number of candidates the submitter desires to receive in response to a biometric Investigative Search request per ranked candidate list, with a maximum of 99. If multiple candidate lists are to be returned in a search request, the If the NIR in the request is greater than NCR in the request, CJIS will set NIR to the NCR value. This field is also found in the responses to a biometric Investigative Search where it reflects the actual total number of candidates returned in the CNL for the entire concatenated list. For EQRR, this field identifies the number of Identity History Summary reports that are returned in response to an EQHR.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionImagesRequestedQuantity

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.080: Response Explanation (EXP)**

**Description:**

This field is free-form text to elaborate on the Response Code field for the Type-10 Photo record requested.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: dod-ebts:TransactionReasonText

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.082: Response Code (REC)**

**Description:**

Natively, this one-byte alpha field will contain allowable values of "Y" or "N." This field is used in the PDR and PRR transactions to indicate the status of the corresponding request. If the request contains any errors, the response code REC will be set to "N." Otherwise it will be set to "Y."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODES

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: ebts:TransactionResponseIndicator

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.083: Unsolved Latent File (ULF)**

**Description:**

This one-character alpha field is used to designate whether a latent image or features record in a search should be added to the Unsolved Latent File. Submit a "Y" for yes. If negative, submit "N". If the field is omitted, the default behavior will be 'N'.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODES

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionUnsolvedLatentFileIndicator

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.084: Amputated or Bandaged (AMP)**

**Description:**

This repeating field contains information about amputated or bandaged fingerprints in a submission. The field is composed of repeating sets of two subfields: Finger Position / FGP and Amputated Or Bandaged Code / AMPCD. This field is to be used any time there are fewer than ten printable fingers in a tenprint submission for finger positions 1 – 10 or positions 11–15 to specify when no slap fingerprint images are provided in the finger positions. A partially amputated finger should be printed and be marked amputated, XX. If the finger’s image is missing for any reason, the UP code should be used. This field is used to tell the AFIS which finger positions need to be characterized. The UP code should only be used when the entire image is not provided for fingerprints in the submission. This code will indicate that the AFIS matcher should ignore this image and not include the image in the matching process. For the traditional encoding, the two-character finger position code is followed by the {US} separator and the amputated or bandaged code. Each set of fingers/amp codes shall be separated by the {RS} separator.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.084\_0: Amputated or Bandaged - Subfields: Repeating sets of information items (AMP\_0)**

**Description:**

Repeating sub field for Amputated or Bandaged.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	13
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..13

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.084\_1: Amputated or Bandaged - Finger Position Code (FGP)**

**Description:**

The two-character finger position code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	01 <= FGP <= 15

Code List: FINGER POSITION CODE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..13

XML Level 3: itl:FingerprintImageFingerMissing

Cardinality: 0..13

XML Level 4: ansi-nist:FingerPositionCode

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.084\_2: Amputated or Bandaged - Amputated or Bandaged Code (AMPCD)**

**Description:**

This information item provides the code that describes the reason the finger's image is missing.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: AMPUTATED OR BANDAGED CODE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..13

XML Level 3: itl:FingerprintImageFingerMissing

Cardinality: 0..13

XML Level 4: ansi-nist:FingerMissingCode

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.086: AFIS Segment Control Number (SCNA)**

**Description:**

This field contains an identifier used to track or reference unsolved records. Legacy records that were deposited in the ULF prior to NGI Increment 3 will be referenced with their legacy SCNA. All other unsolved records will be referenced with a UCN in this field. The SCNA field is used, for example, to reference records in the ULF or UPF in the response to a latent or facial investigative search respectively.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:AFISSegmentControlID

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.087: Treat As Adult (TAA)**

**Description:**

A one-byte optional field to indicate whether a juvenile is to be processed as an adult. A "Y" indicates yes; an omitted field indicates no. The TAA returned in a response is the same as the one submitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	If Yes, this field shall contain "Y," if No, the field is omitted.

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonAdultTreatmentIndicator

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.088: Note Field (NOT)**

**Description:**

This free-text field is used to provide additional information regarding electronic latent submissions. For latent search identification results feedback, the NOT field will be used to indicate the candidate from the SRL that matched the search image. For UHN transactions, the NOT field will contain case related information about the search transaction with the hit that generated the unsolicited notification. For ULM transactions, the NOT field will provide information related to latent search images that are candidates for comparison with the unsolved latent (e.g., case-related identifiers or point of contact information).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.089: Match Score (MSC)**

**Description:**

This field contains the match score from NGI for each candidate listed in the 2.064 CAN field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData (0..1)/ebts:TransactionCandidateList(0..3)

Cardinality: 0..1

XML Level 3: ebts:TransactionCandidateList

Cardinality: 0..1

XML Level 4: ebts:CandidateMatchScoreValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.091: Ridge Core Delta One for Subpattern Classification (RCD1)**

**Description:**

This grouped field contains information about the finger(s) ridge counts and is used for Native Mode searches in conjunction with the Pattern Level Classification (PAT 2.034).

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.091\_0: Ridge Core Delta One for Subpattern Classification - Subfields: Repeating sets of information items (RCD1\_0)**

**Description:**

Repeating subfield for Ridge Core Delta One for Subpattern Classification.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..1

XML Level 3: ebts:FingerprintImageFinger

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.091\_1: Ridge Core Delta One for Subpattern Classification - Finger Position Code (FGP)**

**Description:**

The two-character finger position code. The two-character finger position code as specified for the related Pattern Level Classification PAT.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	10
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: FINGER POSITION CODE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0..1

XML Level 3: ebts:FingerprintImageFinger

Cardinality: 0..10

XML Level 4: ansi-nist:FingerPositionCode

Cardinality: 1..10

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.091\_2: Ridge Core Delta One for Subpattern Classification - First Subpattern Ridge Count (RCN1)**

**Description:**

The Ridge Count Number (RCN1 and RCN2) represents the number of ridges between the core and the delta. For right and left slant loops, this count identifies the ridges crossed on a line between the core and the delta. For whorls, both the RCN1 and the RCN2 values have meaning. Permissible values are 1 to 30 for actual ridge counts and 30 if there are more than 30 ridges. The count of 31 indicates an unknown number of ridges, and 0 indicates that the ridge count is not applicable.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	2	0	2
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N	N/A	N/A	N/A

Code List: RIDGE COUNT NUMBER

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0...1

XML Level 2: ebts:PersonFingerprintSet

Cardinality: 0...1

XML Level 3: ebts:FingerprintImageFinger

Cardinality: 0...10

XML Level 4: ansi-nist:RidgeCountValue

Cardinality: 0...2

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.092: Ridge Core Delta Two for Subpattern Classification (RCD2)**

**Description:**

This grouped field contains information about the finger(s) ridge counts and is used for Native Mode searches in conjunction with the Pattern Level Classification (PAT 2.034).

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0...1

XML Level 2: ebts:PersonFingerprintSet/ ebts:FingerprintImageFinger

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.092\_0: Ridge Core Delta Two for Subpattern Classification - Subfields: Repeating sets of information items (RCD2\_0)**

**Description:**

Repeating subfield for Ridge Core Delta Two for Subpattern Classification.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet/ ebts:FingerprintImageFinger

Cardinality: 0..1

XML Level 3: ebts:FingerprintImageFinger

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.092\_1: Ridge Core Delta Two for Subpattern Classification - Finger Position Code (FGP)**

**Description:**

The two-character finger position code.      The two-character finger position code as specified for the related Pattern Level Classification PAT.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	10
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: FINGER POSITION CODE

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet/ ebts:FingerprintImageFinger

Cardinality: 0..1

XML Level 3: ebts:FingerprintImageFinger

Cardinality: 0..10

XML Level 4: ansi-nist:FingerPositionCode

Cardinality: 1..10

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.092\_2: Ridge Core Delta Two for Subpattern Classification - Second Subpattern Ridge Count (RCN2)**

**Description:**

The Ridge Count Number (RCN1 and RCN2) represents the number of ridges between the core and the delta. For right and left slant loops, this count identifies the ridges crossed on a line between the core and the delta. For whorls, both the RCN1 and the RCN2 values have meaning. Permissible values are 1 to 30 for actual ridge counts and 30 if there are more than 30 ridges. The count of 31 indicates an unknown number of ridges, and 0 indicates that the ridge count is not applicable. Deprecated for this set only.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	2
Character Types	Special Characters	Format	Constraints
N	N/A		N/A

Code List: RIDGE COUNT NUMBER

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:PersonFingerprintSet/ ebts:FingerprintImageFinger

Cardinality: 0..1

XML Level 3: ebts:RidgeCoreDelta

Cardinality: 0..10

XML Level 4: ansi-nist:RidgeCountValue

Cardinality: 0..2

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.095: Repository Statistics Response (RFR)**

**Description:**

This one-character alpha field is used to indicate a user's desire to have CJIS return a Type-9 features record associated with an image requested via IRQ, LFIS, and LFFS transactions. For the Latent Investigative Search, the features and matched minutiae will be returned to allow for an overlay on the image for comparison purposes. A features record will be returned if the RFR value equals "Y." A features record will not be returned if the field is omitted, its use is optional or if the value of RFR equals "N."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	RFR = 'Y' or 'N'

Code List: YES NO CODES

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordFeaturesRequestIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.096: Request Photo Record (RPR)**

**Description:**

This one-character alpha field is used to indicate a user's desire to have the repository return a Type-10 photo record if one is on file and disseminable. This field is used in conjunction with a Rapid Fingerprint Identification Search transaction RPIS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: FBI REQUEST PHOTO RECORD CODES

Source: NGI-DOC-01078-10.0

Status: Sunset

XML Level 1: ebts:RecordPhotoRequestIndicator

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.098: Name of Designated Repository (NDR)**

**Description:**

This field contains the numerical designation of the repository to be searched. Repository numbers are assigned by the CJIS Division. Multiple entries in this field will indicate a desire to search more than one repository.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	10
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: DESIGNATED REPOSITORY NAME

Source: NGI-DOC-01078-10.0

Status: Active

XML Level 1: ebts:RecordFBIRepositoryCode

Cardinality: 0...10

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.300: BAT Global Unique Identifier (GUID)**

**Description:**

This optional field shall contain the Biometrics Automated Toolset BAT Global Unique Identifier GUID as assigned to the subject by the BAT.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
36	38	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:BATGlobalUniqueID/nc:IdentificationID

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.302: Internment Serial Number (ISN)**

**Description:**

The internment serial number (ISN) is a unique identification number assigned to each EPW, RP and CI taken into the custody of the U.S. Armed Forces. The ISN will consist of three components, with the first two separated by a dash as follows: A. First Component. The first component will contain five characters. The first two will be the alpha-characters 'US'. The third character will be either the alpha or numeric designation for the command/theater under which the EPW, RP and CI came into the custody of the U.S. The fourth and fifth positions are alpha-characters designating the EPW, RP and CI serving power. B. Second Component. The second component is a six character numeric identifier. These numbers will be assigned consecutively to all EPW, RP and CI processed through ISN assigning organizations. The Branch PWIC will assign blocks of numbers to ISN assigning organization/elements in the supported theater. c. Third Component. The third component will consist of an acronym identifying the classification of the individual: either EPW, RP, or CI, to represent Enemy Prisoner of War, Retained Person, or Civilian Internee, respectively. Should an individual that was initially classified as an EPW later determined to be a medically or religiously qualified retained person, the classification may be changed to "RP" with the approval of the EPW command/brigade.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Army Regulation 190-8

Status: Active

XML Level 1: dod-ebts:InternmentSerialNumberID/nc:IdentificationID

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.303: DoD Number (DOD\_NO)**

**Description:**

Number assigned to the enrollment by a DoD repository.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	5
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: DOD\_BTf\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:DoDNumber/nc:IdentificationID

Cardinality: 0..5

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.308: Electronic Data Interchange Personal Identifier (EDIPI)**

**Description:**

The identifier for the dossier collection of documents about the subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTf\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:ElectronicDataInterchangePersonalID/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.309: Defense Biometric Identification System Identifier (DBIDS\_ID)**

**Description:**

This optional field shall contain the DBIDS ID unique identifier for a DBIDS user.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
10	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:DBIDSID/nc:IdentificationID

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.310: Biometric Subject Personnel Type (PER\_TYPE)**

**Description:**

Contains a code that describes a general category or classification of a biometric subject by the reason they are of interest when encountered.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	47
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:PersonCategoryCode

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.310\_1: Biometric Subject Personnel Type - Person Category Code (PER\_CAT)**

**Description:**

A data type for an enumeration of the type of person category codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	30	1	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: PERSON CATEGORY CODES

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:PersonCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:PersonCategoryCodeList

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

**2.310\_2: Biometric Subject Personnel Type - Foreign National Citizenship (FN\_GENC)**

**Description:**

The GENC Country Code of the Foreign National Hire.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A		N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:PersonCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:ForeignNationalGENC

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.310\_3: Biometric Subject Personnel Type - Agency of Employment (EMPLOY\_BY)**

**Description:**

The agency to which the individual works for.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	0	1
Character Types	Special Characters	Format	Constraints
A	N/A		N/A

Code List: EMPLOYED BY CODES

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:PersonCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:EmployedBy

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

**2.310\_4: Biometric Subject Personnel Type - Country Employed In (WORK\_IN)**

**Description:**

The GENC Country Code to label the country of employment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A		N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:PersonCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:WorkingIn

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.310\_5: Biometric Subject Personnel Type - Comment (PER\_TYP\_COM)**

**Description:**

Additional comments on the employee.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	128	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A		N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:PersonCategoryCode

Cardinality: 0..1

XML Level 2: nc:CommentText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

**2.316: Request Mug Shot (RMS)**

**Description:**

An indicator that requests a return of the most recent mug shot frontal pose on file with DoD for the given biometric subject. Otherwise, this field may be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODES

Source: DOD\_BTFS\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:MugShotRequestIndicator

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.317: Request IAFIS Search (RIS)**

**Description:**

This optional field shall indicate a request to search IAFIS in addition to the DoD ABIS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODES

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:IAFISSearchRequestIndicator

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.318: XML-based Rap Sheet (XML)**

**Description:**

An electronic rap sheet for the biometric subject in XML format. Notes: The electronic rap sheet shall consist of lines with a maximum of 174 characters per line. The response formatting shall conform to a future DoD standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	400000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:TransactionXMLRapSheetText

Cardinality: 0...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.334: Submission Color Code (SCC)**

**Description:**

The color classification of the biometric subject. Red Force includes persons that are Enemy Prisoners of War and Enemy Combatants. Blue Force includes persons that are U.S. Military, DoD Contractors, or DoD civilians. Grey Force includes person that are local nationals, Third Country Nationals or Contractors, or Coalition.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: COLOR CLASSIFICATION CODES

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:PersonSubmissionColorCode

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.335: Dossier Number (DOSSIER)**

**Description:**

The identifier for the dossier collection of documents about the subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:DossierNumber/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.350: Alert (ALERT)**

**Description:**

This field contains alert information that will be used in the case where a new submission into the system results in an IDENTED response against the submission containing the alert data. This field should be used in response messages only, and should not be used when submitting new biometric files to DoD ABIS. This field contains four information items and all four must be completed if this field is used. It consists of: Alert Category, Alert Value, Alert Contact and Alert Detail.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:Alert

Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.350\_0: Alert - Subfields: Repeating sets of information items (ALERT\_0)**

**Description:**

Repeating subfield for Alert.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	1	52
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:Alert

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.350\_1: Alert - Alert Category (ALERT\_CAT)**

**Description:**

The alert category assigned to a biometric subject indicating what action, if any, should be taken regarding the biometric subject if he/she is encountered. DoD ABIS and NGIC should have coordination on acceptable ALERT Categories.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:Alert

Cardinality: 0...\*

XML Level 2: dod-ebts:AlertCategory

Cardinality: 1...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.350\_2: Alert - Alert Identifier (ALERT\_ID)**

**Description:**

The unique identifier of the parallel relational database to DoD ABIS

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	12	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:Alert

Cardinality: 0...\*

XML Level 2: dod-ebts:DBIDSID

Cardinality: 1...1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.350\_3: Alert - Alert Contact (ALERT\_CONTACT)**

**Description:**

The agency and individual contact reference responsible for establishing the alert.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: DOD\_BTf\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:Alert

Cardinality: 0..\*

XML Level 2: dod-ebts:AlertContactName

Cardinality: 1..1

XML Level 3: nc:PersonDescriptionText

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.350\_4: Alert - Alert Detail (ALERT\_DETAIL)**

**Description:**

Special handling instructions or other information about the individual identified in an alert.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	500	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: DOD\_BTf\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:Alert

Cardinality: 0..\*

XML Level 2: dod-ebts:AlertDetailDescriptionText

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.351: Encounter Protection (EP)**

**Description:**

The encounter protection fields defined below allow for an incoming submission to identify and conceal associations made with other previously submitted transactions. This set of fields can be used by an individual ORI to either protect or unprotect a single associated match or all associated matches. This field contains information that will be used in the case where a new submission wants the subject's association(s) to be protected or unprotected. Protection of either an individual encounter or multiple encounters will be decided based on the entries in this field. This field contains two subfields and both must be completed if this field is used. DoD EBTS v4.1 identifies Field 2.351 for Encounter Protection. However, Field 2.351 Encounter Protection shall not be configurable by the user or the biometric capturing device i.e., Encounter Protection is for internal use only at this time. Submissions from organizations that must use Encounter Protection should contact BIMA operations and coordinate the use of Encounter Protection with them. It is the responsibility of ABIS to follow the Encounter Protection business rules based on the ORI

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
Encoding Specific	Encoding Specific	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00  
 Status: Active  
 XML Level 1: dod-ebts:EncounterProtection  
 Cardinality: 0..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.351\_1: Encounter Protection - Encounter Protection Function (EP\_FUN)**

**Description:**

This field contains information that will be used to determine the action to be taken. It will contain a single numeric value 0=Unprotect, 1=Protect.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	1	1	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N	N/A	N/A	N/A

Code List: ENCOUNTER PROTECTION FUNCTION CODES  
 Source: DOD\_BTF\_TS\_EBTS\_Nov06\_01.02.00  
 Status: Active  
 XML Level 1: dod-ebts:EncounterProtection  
 Cardinality: 0..1  
 XML Level 2: dod-ebts:EncounterProtectionFunctionCode  
 Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.351\_2: Encounter Protection - Encounter Protection Level (EP\_LEVEL)**

**Description:**

This field contains information that will be used to determine the level of protection being assigned to the subject being searched. This field will contain a single numeric value 0 = Single Encounter, 1 = All Encounter.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: ENCOUNTER PROTECTION LEVEL CODES

Source: DOD\_BTFS\_TS\_EBTS\_Nov06\_01.02.00

Status: Active

XML Level 1: dod-ebts:EncounterProtection

Cardinality: 0..1

XML Level 2: dod-ebts:EncounterProtectionLevelCode

Cardinality: 1..1

DoD EBTS 1.2: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.850: Biometric Modality Available (BIO\_MOD\_0)**

**Description:**

List the biometric modalities available within a specific designated repository and the identifier assigned to it by the repository if applicable. Part of a response from a submission or search.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.850\_0: Biometric Modality Available - Subfields: Repeating sets of information items (BIO\_MOD)**

**Description:**

Repeating subfield for Biometric Modality Available.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	*
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0...\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.850\_1: Biometric Modality Available - Modality Type (MOD\_TYPE)**

**Description:**

The type of biometric modality indicated.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
3	6	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
A	N/A	N/A	N/A

Code List: MODALITY TYPE CODES

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0...\*

XML Level 2: dod-ebts:ModalityTypeCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.850\_2: Biometric Modality Available - Modality Sub-Type (MOD\_STYPE)**

**Description:**

A more specific type of the particular biometric modality being referenced. For example, finger position code is the Modality Sub-Type of Fingerprint Image, the left or right position of the eye is the Biometric Sub-Type of Iris Image, and subject pose code is the Biometric Sub-Type of a Facial Photo Image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: MODALITY SUB-TYPE CODES

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0..\*

XML Level 2: dod-ebts:ModalitySubTypeCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.850\_3: Biometric Modality Available - Name of Designated Repository (MOD\_REPO)**

**Description:**

This field contains the numerical designation of the repositories to be searched. Repository numbers are assigned by the CJIS Division. Multiple entries will be separated by the {RS} separator. This information item indicates the repository where the modality is located.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: DESIGNATED REPOSITORY NAME

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0..\*

XML Level 2: ebts:RecordFBIRepositoryCode" /nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.850\_4: Biometric Modality Available - Modality Location Originating Agency Identifier (MOD\_LOC)**

**Description:**

The Originating Agency Identifier of the location which has the biometric modality available for the identified biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
9	9	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0..\*

XML Level 2: nc:Agency

Cardinality: 0..1

XML Level 3: nc:OrganizationDescriptionText

Cardinality: 1.1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.850\_5: Biometric Modality Available - Modality Retrieval Identifier Type (MOD\_ID\_TYPE)**

**Description:**

The type of identifier used to retrieve the biometric modality e.g. TCN, FNU, DOD, SSN, ISN, GUID, etc. It is up to the Application Profile to determine what the appropriate identifier types should be.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: IDENTIFIER TYPE CODES

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0..\*

XML Level 2: dod-ebts:ModalityIdentifierTypeCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.850\_6: Biometric Modality Available - Modality Retrieval Identifier (MOD\_ID)**

**Description:**

The identifier used to retrieve the biometric modality.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0..\*

XML Level 2: dod-ebts:RetrievalID/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.850\_7: Biometric Modality Available - Comment (MOD\_COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModality

Cardinality: 0..\*

XML Level 2: nc:CommentText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.851: Biometric Modality Request (BIO\_MODR)**

**Description:**

Specify the biometric modality being requested.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.851\_1: Biometric Modality Request - Modality Type (MODR\_TYPE)**

**Description:**

The type of biometric modality indicated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: MODALITY TYPE CODES

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0...1

XML Level 2: dod-ebts:ModalityTypeCode

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.851\_2: Biometric Modality Request - Modality Sub-Type (MODR\_SUBTYPE)**

**Description:**

A more specific type of the particular biometric modality being referenced.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: MODALITY SUB-TYPE CODES

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0..1

XML Level 2: dod-ebts:SubTypeCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.851\_3: Biometric Modality Request - Name of Designated Repository (MODR\_REPO)**

**Description:**

This field contains the numerical designation of the repositories to be searched. Repository numbers are assigned by the CJIS Division. Multiple entries will be separated by the {RS} separator. This information item indicates the repository where the modality is located.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: DESIGNATED REPOSITORY NAME

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0..1

XML Level 2: dod-ebts:RespositoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.851\_4: Biometric Modality Request - Modality Location Originating Agency Identifier (MODR\_AGENCY)**

**Description:**

The Originating Agency Identifier of the location which has the biometric modality available for the identified biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
9	9	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0..1

XML Level 2: nc:Agency

Cardinality: 0..1

XML Level 3: nc:OrganizationDescriptionText

Cardinality: 1.1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.851\_5: Biometric Modality Request - Modality Retrieval Identifier Type (MODR\_ID\_TYPE)**

**Description:**

The type of identifier used to retrieve the biometric modality e.g. TCN, FNU, DOD, SSN, ISN, GUID, etc. It is up to the Application Profile to determine what the appropriate identifier types should be.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: IDENTIFIER TYPE CODES

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0..1

XML Level 2: dod-ebts:ModalityIdentifierCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.851\_6: Biometric Modality Request - Modality Retrieval Identifier (MODR\_ID)**

**Description:**

The identifier used to retrieve the biometric modality.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0..1

XML Level 2: dod-ebts:ModalityRetrievalID/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.851\_7: Biometric Modality Request - Requested Image Quantity (MODR\_QUAL)**

**Description:**

The maximum number of images the requester desires to receive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
0	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval

Status: Emerging

XML Level 1: dod-ebts:BiometricModalityRequest

Cardinality: 0..1

XML Level 2: dod-ebts:ImageQuantity

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.852: Biometric Subject Body Build (SUBJ\_BUILD)**

**Description:**

The physique of an individual.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: BODY BUILD CODES

Source: Developed for BAT V5 AP. Pending approval.

Status: Emerging

XML Level 1: nc:PersonBuildText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.853: Biometric Subject Education (SUBJ\_ED)**

**Description:**

The highest level of education the biometric subject has obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: EDUCATION CODES

Source: Developed for BAT V5 AP. Pending approval.

Status: Emerging

XML Level 1: nc:PersonEducationLevelText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.854: Collection Unit (SUBJ\_SPEC)**

**Description:**

Information regarding the unit that collected the biometric sample.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:BiometricCollectionUnit

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.854\_1: Collection Unit - Superior Unit (SUBJ\_SPEC\_VAL)**

**Description:**

The name of the superior unit.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:BiometricCollectionUnit

Cardinality: 0...1

XML Level 2: dod-ebts:SuperiorUnitDescriptor

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.854\_2: Collection Unit - SubSuperior Unit (SUBJ\_SPEC\_PRO)**

**Description:**

The name of the sub superior unit.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:BiometricCollectionUnit

Cardinality: 0..1

XML Level 2: dod-ebts:SubSuperiorUnitDescription

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.855: Military Association (MIL\_ASSOC)**

**Description:**

The military branch that the subject is affiliated with. The set consists of the country that the military branch belongs in, the name of the military branch, the subject's rank/grade, and an indicator regarding if the subject is active or inactive in the military branch.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:MilitaryAssoc

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

## Type-2: User-Defined Descriptive Text

### 2.855\_1: Military Association - Military Branch Country Code (MIL\_CNTRY)

**Description:**

The country the military branch belongs in.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: GENC ALPHA3 CODES

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:MilitaryAssoc

Cardinality: 0..1

XML Level 2: dod-ebts:MilitaryCountryGENCCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

### 2.855\_2: Military Association - Military Branch Name (MIL\_BRNCH)

**Description:**

The name of the military branch that the subject belongs in.      E.G. Army, Navy, Air Force, Marine Corps. If this does not apply, then enter "Unknown".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:MilitaryAssoc

Cardinality: 0..1

XML Level 2: nc:MilitaryBranchName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.855\_3: Military Association - Rank Grade Code (MIL\_RANK)**

**Description:**

The military rank or civilian rank of the person. Rank/Grade Codes of the Military Branch of the Country indicated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Code List: MILITARY RANK GRADE CODES

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:MilitaryAssoc

Cardinality: 0..1

XML Level 2: dod-ebts:MilitaryRankCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.855\_4: Military Association - Military Active Indicator (MIL\_IND)**

**Description:**

Indicator whether the subject is active or inactive in the associated military.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: MILITARY ACTIVE INDICATOR CODES

Source: Developed for BAT V5 Application Profile. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:MilitaryAssoc

Cardinality: 0..1

XML Level 2: dod-ebts:MilitaryIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.856: Previous Transaction - Identification (PREV\_TRAN)**

**Description:**

The set shall contain a transaction identifier from an earlier submission. One usage might be to obtain the current transaction status. Another usage might be to request cancellation of the transaction. Different types of identifiers might be used to reference the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:PreviousTransaction

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.856\_1: Previous Transaction - Identifier Type (PREV\_TRAN\_1)**

**Description:**

The category of the identifier such as TCN, EncounterID, etc. used to identify a previous transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:PreviousTransaction

Cardinality: 0..1

XML Level 2: nc:ActivityCategoryText

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.856\_2: Previous Transaction - Previous Transaction Identifier (PREV\_TRAN\_2)**

**Description:**

The value of the identifier used to identify a previous transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Developed for Blue Force capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:PreviousTransaction

Cardinality: 0..1

XML Level 2: dod-ebts:PreviousActivity/nc:IdentificationID

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.856\_3: Previous Transaction - Transaction Association (PREV\_TRAN\_3)**

**Description:**

An augmentation point for the previous activity.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Added in NEIM Core to nc:PreviousAcitivity

Status: Emerging

XML Level 1: dod-ebts:PreviousTransaction

Cardinality: 0..1

XML Level 2: nc:PreviousActivityAssociation

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.858: Vendor Software (SOFT\_VEN)**

**Description:**

Information regarding the software application provided by vendor. The set consists of Software Vendor Name, Software Application Name and Software Application Version Number.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:VendorSoftware

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.858\_0: Vendor Software - Subfields: Repeating sets of information items (SOFT\_VEN\_0)**

**Description:**

Repeating subfield for Vendor Software.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	1	99
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:VendorSoftware

Cardinality: 1..99

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.858\_1: Vendor Software - Software Vendor Name (SOFT\_VEN\_1)**

**Description:**

The name of the software vendor e.g. Microsoft.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:VendorSoftware

Cardinality: 1..1

XML Level 2: dod-ebts:SoftwareVendorNameText

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.858\_2: Vendor Software - Software Application Name (SOFT\_VEN\_2)**

**Description:**

The name of the software application e.g. Excel.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:VendorSoftware

Cardinality: 0..1

XML Level 2: dod-ebts:SoftwareName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.858\_3: Vendor Software - Software Application Version Number (SOFT\_VEN\_3)**

**Description:**

The number that specifies the software vendor application version number. May consist the Major, Minor, Revision and Build number the vendor assigned to the application.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:VendorSoftware

Cardinality: 0..1

XML Level 2: dod-ebts:softwareVersionText

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.859: Biometric Subject Previous Residence (SUBJ\_PREV\_RESIDE)**

**Description:**

The addresses of the previous residence of the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
		0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: PersonPreviousResidenceLocation

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.859\_1: Biometric Subject Previous Residence - Address Line 1 (SUBJ\_PREV\_RESIDE\_1)**

**Description:**

The street, including both number and name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:StreetFullText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.859\_2: Biometric Subject Previous Residence - Address Line 2 (SUBJ\_PREV\_RESIDE\_2)**

**Description:**

Additional information about the street e.g. apt #.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:StreetFullText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.859\_3: Biometric Subject Previous Residence - City (SUBJ\_PREV\_RESIDE\_3)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:LocationCityName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.859\_4: Biometric Subject Previous Residence - State / Province (SUBJ\_PREV\_RESIDE\_4)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:LocationStateName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.859\_5: Biometric Subject Previous Residence - Country Code (SUBJ\_PREV\_RESIDE\_5)**

**Description:**

The GENC alpha3 country code. The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.859\_6: Biometric Subject Previous Residence - Postal Code (SUBJ\_PREV\_RESIDE\_6)**

**Description:**

Alphanumeric code assigned to groups of addresses by various national postal systems throughout the world.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:LocationPostalCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.859\_7: Biometric Subject Previous Residence - Neighborhood / District (SUBJ\_PREV\_RESIDE\_7)**

**Description:**

A geographically localized community within a larger city, town or suburb.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:LocaleNeighborhoodName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.859\_8: Biometric Subject Previous Residence - Village (SUBJ\_PREV\_RESIDE\_8)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.859\_9: Biometric Subject Previous Residence - Address Validity (SUBJ\_PREV\_RESIDE\_9)**

**Description:**

This field defines the validity of the address information.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: dod-ebts:LocationAddressValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.859\_10: Biometric Subject Previous Residence - Start Date (SUBJ\_PREV\_RESIDE\_10)**

**Description:**

The date that the subject began residing at this address.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:StartDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.859\_11: Biometric Subject Previous Residence - End Date (SUBJ\_PREV\_RESIDE\_11)**

**Description:**

The date that the subject ceased to reside at this address.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: Developed for BAT V5 Application Profile.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectPreviousResidence

Cardinality: 0..1

XML Level 2: nc:EndDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2010: Number of Images Requested (NIR)**

**Description:**

This optional field contains the number of maximum candidate images the submitter desires to receive in response to a biometric Investigative search request for a given candidate list. If multiple candidate lists are to be returned the NIR value applies to each. If NIR is omitted in a biometric investigative search request, it defaults to 20. This field is also found in the responses to a biometric Investigative search where it reflects the actual number of candidates with image returned in the CNL field for the entire concatenated list.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordImagesRequestedQuantity

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2022: Contributor Assigned Identification Number (CIDN)**

**Description:**

This field is the unique number assigned to a single biographic search by the contributor. This field shall contain ten bytes of alphanumeric data. This is a field in a Type-2 biographic search request EQHR.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
10	10	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionActivity

Cardinality: 0..1

XML Level 2: ebts:ContributorAssignedIdentificationNumber/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2023: Supplementary Identity Information (SII)**

**Description:**

This field will contain identity information not within the scope of the standard NGI Identity History Summary. The format and content of the information in this field may vary for different transactions.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	10000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData (0..1)/ebts:TransactionCandidateList(0..3)

Cardinality: 0..1

XML Level 3: ebts:TransactionSupplementaryIdentityInformationText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2024: Hit Type Indicator (HTI)**

**Description:**

This field will contain a code for the type of hit that generated an unsolicited notification. In the future, a fixed list of values will be created to populate this field. This field will initially be used for the UHN TOT for RISC Notifications. The value will be "RISC" for this initial use.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: HIT TYPE

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionResponseData

Cardinality: 0..1

XML Level 3: ebts:TransactionHitCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2028: Biometric Image Description (BID)**

**Description:**

This repeating set contains information about biometric images the user is requesting in the submission. Each repeating set consists of the following subfields: 1. UCN of the identity or latent record, 2. IMT image type of the image to be retrieved, 3. BSI of the biometric set to be retrieved, 4. FNR is the fingerprint or palmprint position code of the image to be retrieved, 5. PPD of the supplemental image to be retrieved, E. PPD of the supplemental image to be retrieved when FNR equals supplemental. F. POS of a face image, G. SMT code for a scar, mark, or tattoo image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData (0..1)/ebts:TransactionBiometricImagesRequested (0..1)

Cardinality: 0..1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2028\_0: Biometric Image Description - Subfields: Repeating sets of information items (BID\_0)**

**Description:**

Repeating subfield for Biometric Image Description.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	1	1000
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.1

Status: Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2028\_1: Biometric Image Description - FBI Number/UCN (SI)**

**Description:**

SI (Subject Identifier) of the identity or latent record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

XML Level 3: j:PersonFBIIdentification/nc:IdentificationID

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2028\_2: Biometric Image Description - Image Type (IMT)**

**Description:**

The Image Type information items can be used to specify which types of biometric sets are requested. The list of IMT values to be used in an electronic latent submittal to identify the Type-7 or Type-13 records present in Biometric Image code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	IMT = 1, 2, 3 or 4; integer

Code List: BIOMETRIC IMAGE

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

XML Level 3: ebts:BiometricImageCategoryCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2028\_3: Biometric Image Description - Biometric Set Identifier (BSI)**

**Description:**

Code used to identify the specific biometric set being requested. If the BSI (2.2028\_3) information item is not present, the representative biometric set(s) are retrieved for the identity specified in the Subject Identifier (SI) item. The representative set for fingerprints will be a composite fingerprint set of images, while the representative set for palm prints or supplemental fingerprint and palm print will be the latest set enrolled.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	24	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	integer

Code List: BIOMETRIC SET IDENTIFIER CODES

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

XML Level 3: ebts:BiometricSetID

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2028\_4: Biometric Image Description - Friction Ridge Position Requested (FNR)**

**Description:**

The friction ridge number requested.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	fingerprint or palmprint position code

Code List: FINGER POSITION CODES and PALM POSITION CODES

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

XML Level 3: ansi-nist:FrictionRidgePositionCode

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.2028\_5: Biometric Image Description - Print Position Descriptors (PPD)**

**Description:**

This field is used to specify which Supplemental Fingerprint and Palm Print images are being requested. This PPD is a subfield to fields of Type Set. This subfield will be present if and only if the subfield Friction ridge Generalized Position code FGP or the Friction ridge Numbers Requested FNR code "19" appears in the Set field. These PPD subfields have no subfields unlike PPD 2.2030. This field shall consist of two mandatory information items. The first is the Probable Decimal finger Position code 0-10 taken from the ANSI/NIST-ITL specification. But for the finger position it must be a two character numeric; implying a leading zero for positions 0 thru 9. The second code information item is the Finger Image Code; it also is taken from the ANSI/NIST-ITL specification to indicate the portion of the EJI or tip image. There may be up to 8 such images for a single finger, but NGI only expects the values of EJI. Both the probable decimal friction ridge code and the image code are concatenated into 1 information item without any separator.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	5	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: FINGER POSITION CODES and PALM POSITION CODES

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

XML Level 3: ansi-nist:FrictionRidgePositionCode

Cardinality: 0...1

XML Level 4: ebts:PrintPositionDescriptors (0...1)/ebts:FingerImageCodes (1...1)

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
---------------	----	---------------	----	---------------	-----	---------------	-----

Type-2: User-Defined Descriptive Text

**2.2028\_6: Biometric Image Description - Pose Code (POS)**

**Description:**

The POS (2.2028\_6) information item specifies the subject pose code of the facial photo image to be retrieved.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: New-Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

XML Level 3: ansi-nist:FacelImageSubjectPoseCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2028\_7: Biometric Image Description - SMT Code (SMT)**

**Description:**

SMT code for a scar, mark, or tattoo image. The SMT is required when an SMT image is to be retrieved.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	10	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: SMT DESCRIPTORS

Source: NGI-DOC-01078-10.0

Status: New-Emerging

XML Level 1: ebts:RecordTransactionData (0...1)/ebts:TransactionBiometricImagesRequested (0...1)

Cardinality: 0...1

XML Level 2: ebts:BiometricImageDescription

Cardinality: 0...1000

XML Level 3: nc:PhysicalFeatureCategoryCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2029: Biometric Set Identifier (BSI)**

**Description:**

This numeric field will uniquely identify each biometric image set or photo, such as a facial photo, a fingerprint set, a palm print set, or a supplemental print set.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	24	0	1000
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: BIOMETRIC SET IDENTIFIER CODES

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:BiometricSetID

Cardinality: 0...1000

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
---------------	----	---------------	----	---------------	-----	---------------	-----

**2.2030: Print Position Descriptors (PPD)**

**Description:**

This field will be present if and only if the finger position code "19" appears in Field 2.074. This field will consist of two mandatory information items: The first is the probable integer finger position code 0-10 taken from finger position table. The second information item is the code taken from Table P-1, found in Appendix P of NGI-DOC-01078-10.0, to indicate the portion of the EJI or tip image that is a part of the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	10
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData

Cardinality: 0...1

XML Level 2: ebts:TransactionPrintPositionDescriptors

Cardinality: 0...10

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
---------------	----	---------------	----	---------------	-----	---------------	-----

Type-2: User-Defined Descriptive Text

**2.2030\_1: Print Position Descriptors - Friction Ridge Generalized Position (FGP)**

**Description:**

This field is used in Record types dealing with friction ridges. It specifies which friction ridge biometric sample was collected. Use finger position code 0-10.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	0 <= FGP <= 10; integer

Code List: FRICTION RIDGE GENERALIZED POSITION

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionPrintPositionDescriptors

Cardinality: 0..10

XML Level 3: biom:FingerPositionCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2030\_2: Print Position Descriptors - Finger Image Code (FIC)**

**Description:**

A code to indicate the portion of the EJI or tip image that is a part of the transaction. See Look Up Codes for valid entries. Only EJI, TIP, FV1, FV2, FV3, FV4, PRX, DST, MED are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: PRINT POSITION DISCRIPTOR

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionPrintPositionDescriptors

Cardinality: 0..10

XML Level 3: ebts:FingerImageCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2031: Biometric Image Available (BIA)**

**Description:**

This field will indicate the existence of available biometric images (fingerprint, palmprint, supplemental print, facial photo, and SMT photo) for an Identity in the NGI AFIS/FBI repository. Allowable BIA values are listed in the codelist table. The following abbreviations are used in the table for each image type: FP – Fingerprint, PP – Palmprint, SP – Supplemental Print, PHF – Photo Facial, and PSMT – Photo Scar, Mark, & Tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	6
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	0 <= BIA <= 31; integer

Code List: BIOMETRIC IMAGE AVAILABLE CODES

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordSubject

Cardinality: 0..1

XML Level 2: ebts:BiometricImageAvailableCode

Cardinality: 0..6

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2032: Audit Trail Record (ATR)**

**Description:**

This repeating record contains the information associated with the dissemination of the owner’s images. The FNR and PPD items are present in ATR to identify the image within the biometric set that was disseminated when the entire set was not returned.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2032\_0: Audit Trail Record - Subfields: Repeating sets of information items (ATR\_0)**

**Description:**

Repeating subfield for Audit Trail Record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	1	100
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.1

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2032\_1: Audit Trail Record - Originating Agency Identifier (ORI)**

**Description:**

The origination field shall contain the ORI identifying the agency or organization submitting the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
9	9	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ebts:RecordReceivingAgency/nc:IdentificationID

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2032\_2: Audit Trail Record - Date of Dissemination (DAT)**

**Description:**

Date the images were disseminated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ebts:RecordDisseminationDate/nc:YearMonthDate

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2032\_3: Audit Trail Record - TOT of Dissemination (TOT)**

**Description:**

TOT used to acquire the image set.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ebts:RecordTransactionCategoryCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2032\_4: Audit Trail Record - Biometric Set Identifier Disseminated (BSI)**

**Description:**

BSI of the image disseminated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	24	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ebts:BiometricSetID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2032\_5: Audit Trail Record - Image Type Disseminated (IMT)**

**Description:**

Type of image disseminated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: BIOMETRIC IMAGE

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ebts:BiometricImageCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.2032\_6: Audit Trail Record - Friction Ridge Position Requested (FNR)**

**Description:**

The friction ridge number requested.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	Fingerprint and Palmprint position codes

Code List: FINGER POSITION

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ansi-nist:FingerPositionCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2032\_7: Audit Trail Record - Print Position Descriptors (PPD)**

**Description:**

This PPD is an information item included within other fields. This item will be present if and only if the Friction ridge Generalized Position code (FGP) or the Friction ridge Number(s) Requested (FNR) code (19) appears in the field. These instances of PPD shall consist of a string containing two mandatory pieces of information. The first is the Probable Decimal finger Position code (0-10) taken from the ANSI/NIST-ITL specification. The finger position must include a leading zero for positions 0 through 9. Both the probable decimal friction ridge code and the image code are concatenated into 1 information item without any separator.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	5	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ebts:PrintPositionDescriptors/ebts:FingerImageCode(1..1)

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2032\_8: Audit Trail Record - Subject Pose (POS)**

**Description:**

POS of facial image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ansi-nist:FacelImageSubjectPoseCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2032\_9: Audit Trail Record - NCIC SMT Code (SMT)**

**Description:**

SMT code of SMT images.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	10	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: SMT DESCRIPTORS

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:TransactionAuditTrailRecordList

Cardinality: 0..1

XML Level 2: ebts:AuditTrailRecord

Cardinality: 1..100

XML Level 3: ansi-nist:PhysicalFeatureCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033: Candidate Investigative List (CNL / CAN)**

**Description:**

This field is added to the Investigative search response TOTs, providing a candidate list that supports a multi-biometric type and multi-event repository. The legacy CAN field in the SRL is still supported as well for Fingerprint-only candidate lists. It is possible for the CNL to contain multiple ranked lists concatenated together due to multiple biometric types being searched. For friction ridge, NGI supports three biometric types for a latent investigative search: fingerprint, upper-palm, and lower-palm. Therefore, an SRL can contain one, two, or three ranked lists where the number of candidates in each list is determined by the NCR from the request. Therefore, the maximum number of candidates for an SRL is 3 x NCR. When multiple biometric types are searched, a maximum of NIR images are returned for each type. Therefore, the maximum number of images for an SRL is 3 x NIR. Multiple candidates in traditional encoding will be separated by the {RS} separator.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2033\_0: Candidate Investigative List - Subfields: Repeating sets of information items (CNL\_0 / CAN\_0)**

**Description:**

Repeating subfield for Candidate Investigative List.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	3
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033\_1: Candidate Investigative List - FBI Number/UCN (SI)**

**Description:**

The FBI or UCN number assigned by FBI.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	integer

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: j:PersonFBIIdentification/nc:IdentificationID

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2033\_2: Candidate Investigative List - Master Name (NAM)**

**Description:**

Indicates the name of the subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	50	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: ebts:PersonName (0..1), nc:PersonGivenName (0..1), nc:PersonMiddleName(0..1), nc:PersonSurName (1..1)

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033\_3: Candidate Investigative List - Biometric Set Identifier (BSI)**

**Description:**

This numeric field will uniquely identify a fingerprint set, palmprint set, or a supplemental print set.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	24	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	integer

Code List: BIOMETRIC SET IDENTIFIER CODES

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: ebts:BiometricSetID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2033\_4: Candidate Investigative List - Image Type (IMT)**

**Description:**

This field identifies the type of image e.g., palmprints, toe prints included in an electronic submittal. The list of IMT values to be used in an electronic latent submittal to identify the Type-7 or Type-13 records present [is listed in the look up codes below].

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: BIOMETRIC IMAGE

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: ebts:RecordBiometricImageCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033\_5: Candidate Investigative List - Friction Ridge Generalized Position (FGP)**

**Description:**

This field is used in Record types dealing with friction ridges. It specifies which friction ridge biometric sample was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	1 <= FGP <= 19 or FGP = 33 or 36 or 40 <= FGP <= 50; integer

Code List: FRICTION RIDGE GENERALIZED POSITION

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: ansi-nist:FrictionRidgePositionCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033\_6: Candidate Investigative List - Print Position Descriptors [Type-2, subfield to fields of Type Set] (PPD)**

**Description:**

This PPD is an information item included within other fields. This item will be present if and only if the Friction ridge Generalized Position code (FGP) or the Friction ridge Number(s) Requested (FNR) code (19) appears in the field. These instances of PPD shall consist of a string containing two mandatory pieces of information. The first is the Probable Decimal finger Position code (0-10) taken from the ANSI/NIST-ITL specification. The finger position must include a leading zero for positions 0 through 9. Both the probable decimal friction ridge code and the image code are concatenated into 1 information item without any separator.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	5	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData  
Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList  
Cardinality: 0..3

XML Level 3: ebts:Candidate  
Cardinality: 1..99

XML Level 4: ebts:PrintPositionDescriptors(0..1)/ebts:FingerImageCode (1..1)  
Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033\_7: Candidate Investigative List - Match Score (MSC)**

**Description:**

This field contains the match score from AFIS for each candidate listed in the 2.064 CAN field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0...1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0...3

XML Level 3: ebts:Candidate

Cardinality: 1...99

XML Level 4: ebts:CandidateMatchScoreValue

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2033\_8: Candidate Investigative List - Biometric Image Available (BIA)**

**Description:**

This field will indicate the existence of available biometric images fingerprint, palmprint, supplemental print, facial photo, and SMT photo for an Identity in the NGI AFIS/FBI repository. Allowable BIA values are shown in the table below. The following abbreviations are used in the table for each image type: FP – Fingerprint, PP – Palmprint, SP – Supplemental Print, PHF – Photo Facial, and PSMT – Photo Scar, Mark, & Tattoo. integer

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	<= BIA <= 31

Code List: BIOMETRIC IMAGE AVAILABLE CODES

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0...1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0...3

XML Level 3: ebts:Candidate

Cardinality: 1...99

XML Level 4: ebts:BiometricImageAvailableCode

Cardinality: 0...6

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.2033\_9: Candidate Investigative List - Name of Designated Repository (NDR)**

**Description:**

This field contains the numerical designation of the repository to be searched. Repository numbers are assigned by the CJIS Division. Multiple entries in this field will indicate a desire to search more than one repository.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	400	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: DESIGNATED REPOSITORY NAME

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: ebts:RecordFBIRepositoryCodenc:IdentificationID

Cardinality: 0..100

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033\_10: Candidate Investigative List - Information Designation Character (IDC)**

**Description:**

The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	0 < IDC < 99; integer

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData  
Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList  
Cardinality: 0..3

XML Level 3: ebts:Candidate  
Cardinality: 1..99

XML Level 4: ansi-nist:ImageReferenceIdentification/nc:IdentificationID  
Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2033\_11: Candidate Investigative List - Note Field (NOT)**

**Description:**

NOT provides owning ORI information when no image is available for candidate

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData  
Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList  
Cardinality: 0..3

XML Level 3: ebts:Candidate  
Cardinality: 1..99

XML Level 4: ebts:ORIPointOfContactText  
Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2033\_12: Candidate Investigative List - Subject Pose (POS)**

**Description:**

A pose of a subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: ansi-nist:FacelImageSubjectPoseCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.2033\_13: Candidate Investigative List - SMT Code (SMT)**

**Description:**

SMT provides SMT codes for SMT images.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	10	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Code List: SMT DESCRIPTORS

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData/ebts:TransactionResponseData

Cardinality: 0..1

XML Level 2: ebts:TransactionCandidateList

Cardinality: 0..3

XML Level 3: ebts:Candidate

Cardinality: 1..99

XML Level 4: nc:PhysicalFeatureCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.2034: Unsolved Latent Retained (ULR)**

**Description:**

This field is used in a Biometric Decision BDEC when the decision is a positive identification and the user requests that the unsolved record is to be retained in the unsolved file. A value of "Y" indicates that the latent record should be retained in the ULF. No value or a value of "N" indicates that the user does not want the unsolved record retained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	ULR = Y or N

Code List: Y - Yes or N = No

Source: NGI-DOC-01078-10.0

Status: Emerging

XML Level 1: ebts:RecordTransactionData

Cardinality: 0..1

XML Level 2: ebts:TransactionUnsolvedLatentFileIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8003: Biometric Subject Birth Date (SUBJ\_BIRTHDATE)**

**Description:**

The biometric subject's complete date of birth.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:PersonBirthDate

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8003\_0: Biometric Subject Birth Date - Subfields: Repeating sets of information items (SUBJ\_BIRTHDATE\_0)**

**Description:**

Repeating subfield for Biometric Subject Birth Date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	5
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:PersonBirthDate

Cardinality: 0..5

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8003\_1: Biometric Subject Birth Date - Birth Date (DOB)**

**Description:**

The 8 digit calendar date for the person's birth date. Pad any portion of the date with zero's when unknown or not used. For example, 00000000 when the field is mandatory, but the date is unknown. 20100000 when the year is known but month and day are unknown or not used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYY-MM-DD	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthDate

Cardinality: 0..5

XML Level 2: dod-ebts:PersonBirthDate/nc:Date

Cardinality: 1..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
---------------	----	---------------	-----	---------------	-----	---------------	-----

Type-2: User-Defined Descriptive Text

**2.8003\_2: Biometric Subject Birth Date - Date Validity (DATEVLD)**

**Description:**

This field defines the validity of the date. When any part of the date value is padded with zero's, the date validity shall be set to 'EST' for estimated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthDate  
Cardinality: 0..5

XML Level 2: dod-ebts:DateValidityCode  
Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8003\_3: Biometric Subject Birth Date - Calendar Type (CALTYP)**

**Description:**

The type of calendar the date is being specified in e.g. Gregorian and Islamic.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: CALENDAR TYPE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthDate  
Cardinality: 0..5

XML Level 2: dod-ebts:CalendarCategoryCode  
Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8005: Biometric Subject Death Date (SUBJ\_DEATHDATE)**

**Description:**

The biometric subject's complete date of death. Pad any portion of the date with zero's when unknown or not used. For example, 00000000 when the field is mandatory, but the date is unknown. 20100000 when the year is known but month and day are unknown or not used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathDate

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8005\_1: Biometric Subject Death Date - Death Date (DOD)**

**Description:**

The 8 digit calendar date for the person's death date. Dependent on Profile

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathDate

Cardinality: 0...1

XML Level 2: dod-ebts:PersonDeathDate/nc:date

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8005\_2: Biometric Subject Death Date - Date Validity (DATEVLD)**

**Description:**

This field defines the validity of the date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathDate

Cardinality: 0..1

XML Level 2: dod-ebts:DateValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8005\_3: Biometric Subject Death Date - Calendar Type (CALTYP)**

**Description:**

The type of calendar the date is being specified in e.g. Gregorian and Islamic.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: CALENDAR TYPE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathDate

Cardinality: 0..1

XML Level 2: dod-ebts:CalendarCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8007: Biometric Subject Citizenship (SUBJ\_CTZ)**

**Description:**

The country of which the biometric subject is a citizen. GENC alpha3 country codes are used. The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	5
Character Types	Special Characters	Format	Constraints
A	N/A		N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCitizenshipGENCText

Cardinality: 0..5

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8008: Biometric Subject Ethnic/Racial Characteristic (SUBJ\_RAC)**

**Description:**

The observed or reported ethnic/racial physical characteristic of the biometric subject. Code Mappings from DoD EBTS 3.0 to/from FBI EBTS 9.3. DoD Field 2.8008 Biometric Subject Ethnic/Racial Characteristic map to FBI Field 2.025 Race: A <-> A B <-> B I <-> I W <-> W U <-> U P I -> A H L -> W A R -> U A I -> A A S -> A N A -> I X X -> U

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	3
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: ETHNIC/RACIAL CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEthnicRacialCharacteristicCode

Cardinality: 0..3

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8013: Biometric Subject Blood Type (SUBJ\_BLOOD)**

**Description:**

The blood type of the biometric subject. It consists of Blood Type Value and Blood Type Validity.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBloodGroup

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8013\_0: Biometric Subject Blood Type - Subfields: Repeating sets of information items (SUBJ\_BLOOD\_0)**

**Description:**

Repeating subfield for Biometric Subject Blood Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	3
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBloodGroup

Cardinality: 0...3

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8013\_1: Biometric Subject Blood Type - Blood Type Code (BLTCD)**

**Description:**

The biometric subject's blood type/classification. Notes: Any of the four main types into which human blood is divided: A, B, AB, and O. Blood types are based on the presence or absence of specific antigens on red blood cells. Also called blood group.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	5	1	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	See Look Up Codes

Code List: BLOOD TYPE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBloodGroup

Cardinality: 0..3

XML Level 2: j:PersonBloodTypeCode

Cardinality: 1..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8013\_2: Biometric Subject Blood Type - Blood Type Validity (BLTVLD)**

**Description:**

This field defines the validity of the biometric subject blood type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBloodGroup

Cardinality: 0..3

XML Level 2: dod-ebts:PersonBloodTypeValidityCode

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8014: Biometric Subject Vital Status (SUBJ\_VITAL\_0)**

**Description:**

The set of fields to indicate the condition of the biometric subject at the time of biometric sample collection.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonVitalStatus

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8014\_0: Biometric Subject Vital Status - Subfields: Repeating sets of information items (SUBJ\_VITAL)**

**Description:**

Repeating subfield for Biometric Subject Vital Status.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	3
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonVitalStatus

Cardinality: 0...3

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8014\_1: Biometric Subject Vital Status - Vital Status Validity (VSVLD)**

**Description:**

This field defines the validity of the vital status of the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonVitalStatus

Cardinality: 0..3

XML Level 2: dod-ebts:PersonVitalStatusValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8014\_2: Biometric Subject Vital Status - Vital Status Code (VSCD)**

**Description:**

The condition alive, dead of the biometric subject at the time of biometric sample collection. This field should be used only when taking biometric sample of the subject and not for latent sample.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: SUBJECT STATUS CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonVitalStatus

Cardinality: 0..3

XML Level 2: dod-ebts:PersonVitalStatusCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8016: Biometric Subject Marital Status (SUBJ\_MARITAL)**

**Description:**

Marital status of the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: MARITAL STATUS CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonMaritalStatusCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8019: Collected Identification (COL\_IDENT)**

**Description:**

Information about an identification issued by an agency. It is a set of fields that consists of Identification Type, Identification Identifier, Issuance Organization, Issuance Office, Issuance Date, Expiration Date, and Comment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8019\_0: Collected Identification - Subfields: Repeating sets of information items (COL\_IDENT\_0)**

**Description:**

Repeating subfield for Collected Identification.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	100
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0...100

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8019\_1: Collected Identification - Collected Identification Identifier (CIID)**

**Description:**

The identifying value for the issued identification. Examples include passport number, ssn, or drivers license number. This field is free form text.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0...100

XML Level 2: nc:IdentificationCategoryDescriptionText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8019\_2: Collected Identification - Collected Identification Type (CITYP)**

**Description:**

The category of the collected identification, such as passport, employee id, and internment serial number.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	6	0	4
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: IDENTIFICATION CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0..100

XML Level 2: dod-ebts:CollectedIdentificationCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8019\_3: Collected Identification - Collected Identification Issuance Organization (CII)**

**Description:**

The organization or system that issued the identification collected. This field is free form text and contains values such as "US Government", a country name, a state name, an agency name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0..100

XML Level 2: dod-ebts:IdentificationIssuanceOrganizationText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8019\_4: Collected Identification - Collected Identification Issuance Date (CISSDT)**

**Description:**

The date when the collected identification was issued effective.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0..100

XML Level 2: nc:IdentificationEffectiveDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8019\_5: Collected Identification - Collected Identification Expiration Date (CIEXPDT)**

**Description:**

The date the issued identification expires.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0..100

XML Level 2: nc:IdentificationExpirationDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8019\_6: Collected Identification - Collected Identification Issuance Office (CISSOFF)**

**Description:**

A location or branch identifier for the office or system which issued the identification. This field is free form text. E.G. The location where the biometric subject receives their card after verification.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0..100

XML Level 2: dod-ebts:IdentificationIssuanceOfficeText

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.8019\_7: Collected Identification - Collected Identification Comment (CICOM)**

**Description:**

The notes and comments concerning the issued identification collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	250	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectedIdentification

Cardinality: 0..100

XML Level 2: nc:CommentText

Cardinality: 0...1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8021: Biometric Subject Clearance (SUBJ\_CLEAR)**

**Description:**

The set of fields to indicate the biometric subject clearance level and validity.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonSecurityClearance

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8021\_1: Biometric Subject Clearance - Clearance Code (CLRCD)**

**Description:**

The clearance level that the biometric subject claims to have. This field is not authoritative.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: CLEARANCE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonSecurityClearance

Cardinality: 0...1

XML Level 2: dod-ebts:ClearanceCategoryCode

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8021\_2: Biometric Subject Clearance - Clearance Validity (CLRVLVD)**

**Description:**

The state or quality of being valid of the clearance level that the biometric subject claims to hold.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonSecurityClearance

Cardinality: 0..1

XML Level 2: dod-ebts:ClearanceValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8022: Biometric Subject Compartments (SUBJ\_COMPART)**

**Description:**

A freeform text to describe the compartments or section of information that might bear special community controls and might require restricted handling that the biometric subject claims to be cleared for.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	50
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCompartment

Cardinality: 0..50

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8022\_1: Biometric Subject Compartments - Compartment Description (CMPDESC)**

**Description:**

A freeform text to describe the compartments or section of information that might bear special community controls and might require restricted handling that the biometric subject claims to be cleared for.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCompartment

Cardinality: 0..50

XML Level 2: dod-ebts:PersonCompartmentValueText

Cardinality: 1..1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.8022\_2: Biometric Subject Compartments - Compartments Validity (CMPVLD)**

**Description:**

The state or quality of being valid for the compartments that the biometric subject claims to hold.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCompartment

Cardinality: 0..50

XML Level 2: dod-ebts:PersonCompartmentValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8023: Biometric Subject Comment (SUBJ\_COM)**

**Description:**

The comments or remarks on the biometric subject for which the biometric sample was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	120	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCommentText

Cardinality: 0..1

XML Level 2: nc:TextType

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8024: Biometric Subject Specialty - Biometric Subject US Person Indicator (US\_IND)**

**Description:**

The indicator of whether a biometric subject is a citizen of the United States, an alien lawfully admitted for permanent residence in the United States, or a member of the U.S. Armed Forces.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODE

Source: BSWG

Status: Active

XML Level 1: dod-ebts:USPersonIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8025: Biometric Subject Derogatory Comment (DEROG\_COM)**

**Description:**

The derogatory notes and comments concerning a biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	120	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDerogatoryCommentText

Cardinality: 0..1

XML Level 2: nc:TextType

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8026: Biometric Subject Alternate Name (SUBJ\_AKA)**

**Description:**

An alternate name used by the biometric subject.      Can also be used to capture the subject's full maiden name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8026\_0: Biometric Subject Alternate Name - Subfields: Repeating sets of information items (SUBJ\_AKA\_0)**

**Description:**

Repeating subfield for Biometric Subject Alternate Name. Can also be used to capture the subject's full maiden name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	10
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8026\_1: Biometric Subject Alternate Name - Name - One (NAM1)**

**Description:**

The personal name of a person. It is typically the first name in western culture. Enter "UNKNOWN" if this information item is required and not available at the time of collection.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

XML Level 2: nc:PersonGivenName

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8026\_2: Biometric Subject Alternate Name - Name - Two (NAM2)**

**Description:**

The middle name of a person. It is placed between the first given name and the surname. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Kunya name, the person's first-born son is used as a substitute for the ism.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

XML Level 2: nc:PersonMiddleName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8026\_3: Biometric Subject Alternate Name - Name - Three (NAM3)**

**Description:**

The last name, surname or the family name of the person. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nasab name, a patronymic or series of patronymics.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

XML Level 2: nc:PersonSurName

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8026\_4: Biometric Subject Alternate Name - Name - Four (NAM4)**

**Description:**

A name of a person to represent the fourth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fourth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nisbah name, describes a person's occupation, geographic home area, or descent tribe, family, etc..

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

XML Level 2: ebts:PersonFourthImportanceName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8026\_5: Biometric Subject Alternate Name - Name - Five (NAM5)**

**Description:**

A name of a person to represent the fifth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fifth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Laqab name, intended as a description of the person. Also can be used for the honorific title.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

XML Level 2: ebts:PersonFifthImportanceName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8026\_6: Biometric Subject Alternate Name - Name Validity (NAME\_VLD)**

**Description:**

This field defines the validity of the individual's name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0..10

XML Level 2: dod-ebts:PersonNameValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8026\_7: Biometric Subject Alternate Name - Transliteration Code (TRANSLIT\_CD)**

**Description:**

An encoding to transcribe from one alphabet to another.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	6	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: TRANSLITERATION CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0..10

XML Level 2: dod-ebts:TransliterationCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8026\_8: Biometric Subject Alternate Name - Person Alternate Name Category Code (NAMCATCD)**

**Description:**

Defines the type of name such as maiden name, nickname, alias.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: PERSON ALTERNATE NAME CATEGORY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

XML Level 2: dod-ebts:PersonAlternateNameCategoryCode

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8026\_9: Biometric Subject Alternate Name - Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonAlternateName

Cardinality: 0...10

XML Level 2: nc:CommentText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028: Employment (EMPLOY)**

**Description:**

The information about the biometric subject's employment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_0: Employment - Subfields: Repeating sets of information items (EMPLOY\_0)**

**Description:**

Repeating subfield for Employment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	5
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: New-Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0...5

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_1: Employment - Employer Name (EMPNAM)**

**Description:**

The organization name of the employer, such as company name or corporate name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:EntityName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_2: Employment - Employee Position Name (POSNAM)**

**Description:**

A job title or position of an employee.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:EmployeePositionName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_3: Employment - Address Line 1 (ADD1)**

**Description:**

The street, including both number and name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:LocationAddress

Cardinality: 0..1

XML Level 3: nc:StreetFullText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_4: Employment - Address Line 2 (ADD2)**

**Description:**

Additional information about the street e.g. apt #.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:LocationAddress

Cardinality: 0..1

XML Level 3: nc:StreetFullText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_5: Employment - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:LocationAddress

Cardinality: 0..1

XML Level 3: nc:LocationCityName

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.8028\_6: Employment - State / Province (STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:LocationAddress

Cardinality: 0..1

XML Level 3: nc:LocationStateName

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8028\_7: Employment - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code. The DoD EBTS Default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:LocationAddress

Cardinality: 0..1

XML Level 3: nc:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_8: Employment - Postal Code (POSTAL)**

**Description:**

Alphanumeric code assigned to groups of addresses by various national postal systems throughout the world.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:LocationAddress

Cardinality: 0..1

XML Level 3: nc:LocationPostalCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_9: Employment - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:LocationAddress

Cardinality: 0..1

XML Level 3: dod-ebts:LocationVillageName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_10: Employment - Phone Number (PHNUM)**

**Description:**

The full telephone number including international country code and area code. Space and hyphen are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:TelephoneNumberFullID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_11: Employment - Email Address (EMAIL)**

**Description:**

Identifies an email box to which email messages are delivered. Application Profile might be more specific to what characters are allowed to be entered for the email address.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	254	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:ContactEmailID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_12: Employment - Clearance Code (CLRCD)**

**Description:**

The clearance level that the biometric subject claims to have. This field is not authoritative.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: CLEARANCE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:PersonSecurityClearance

Cardinality: 0..1

XML Level 3: dod-ebts:PersonSecurityClearanceCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_13: Employment - Job Duties (DUTY)**

**Description:**

A list of tasks performed at a job.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: dod-ebts:EmployeeJobDutyText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_14: Employment - Job Description (JOBDESC)**

**Description:**

Freeform text to describe a job such as responsibilities, expected outcome, etc.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:EmployeeOccupationText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_15: Employment - Supervisor Name (SUPV)**

**Description:**

The name of the person who is in charge of a particular department or unit.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:EmployeeSupervisor

Cardinality: 0..1

XML Level 3: nc:PersonName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_16: Employment - Start Date (STARTDATE)**

**Description:**

The begin date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:StartDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8028\_17: Employment - Start Date (ENDDATE)**

**Description:**

The end date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:EndDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8028\_18: Employment - Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEmploymentSummary

Cardinality: 0..5

XML Level 2: nc:CommentText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8029: Biometric Subject Contact Email (SUBJ\_EMAIL)**

**Description:**

The email address of the biometric subject. This field was previously part of 2.8002 SUBJ\_CNTCT in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the subject's email address has been split out into a new Field with ID 2.8029, as assigned in DoD EBTS 3.0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	254	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:BiometricSubjectContactEmail

Cardinality: 0..10

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8031: Biometric Subject Current Residence (SUBJ\_ADDR)**

**Description:**

The address of the current residence of the biometric subject. This field was previously 2.8001 SUBJ\_ADDR in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the previous normalized field has been restructured and a new Field ID 2.8031 was assigned in DoD EBTS 3.0. In addition, Village, Neighborhood and Address Validity are also supported. This field has been updated the various parts of a street address with GENC Alpha3 country codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A		N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8031\_1: Biometric Subject Current Residence - Address Line 1 (ADD1)**

**Description:**

The street, including both number and name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0..1

XML Level 2: dod-ebts:AddressLine1

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8031\_2: Biometric Subject Current Residence - Address Line 2 (ADD2)**

**Description:**

Additional information about the street e.g. apt #.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0..1

XML Level 2: dod-ebts:AddressLine2

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8031\_3: Biometric Subject Current Residence - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0...1

XML Level 2: dod-ebts:LocationCityName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8031\_4: Biometric Subject Current Residence - State / Province (STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0...1

XML Level 2: dod-ebts:LocationStateName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8031\_5: Biometric Subject Current Residence - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code. The DoD EBTS v4.1 Default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8031\_6: Biometric Subject Current Residence - Postal Code (POSTAL)**

**Description:**

Alphanumeric code assigned to groups of addresses by various national postal systems throughout the world.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationPostalCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8031\_7: Biometric Subject Current Residence - Neighborhood / District (NEIG)**

**Description:**

A geographically localized community within a larger city, town or suburb.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0...1

XML Level 2: dod-ebts:LocationNeighborhoodName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8031\_8: Biometric Subject Current Residence - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0...1

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8031\_9: Biometric Subject Current Residence - Address Validity (ADDR\_VLD)**

**Description:**

This field defines the validity of the address information.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonCurrentResidenceLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationAddressValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8032: Biometric Subject Contact Telephone (SUBJ\_PHONE)**

**Description:**

The telephone number including extension (if available) that you might contact the biometric subject. Different categories of telephone number (e.g. cell, home, work, etc.) are supported. This field was previously part of 2.8002 SUBJ\_CNTCT in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the subject's telephone number(s) has been split out into a new Field with ID 2.8032 has been assigned in DoD EBTS 3.0. This field continue to support the various categories of telephone that the subject can be contacted by. The telephone number and extension are supported.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts>ContactTelephone

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8032\_1: Biometric Subject Contact Telephone - Telephone Category Code (PH\_TYP)**

**Description:**

The method of contact for the individual e.g. phone, email.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: TELEPHONE CATEGORY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ContactTelephone

Cardinality: 0..1

XML Level 2: dod-ebts:ContactTelephoneCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8032\_2: Biometric Subject Contact Telephone - Phone Number (PHNUM)**

**Description:**

The full telephone number including international country code and area code. Space and hyphen are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ContactTelephone

Cardinality: 0..1

XML Level 2: nc:FullPhoneNumberFullID/nc:TelephoneSuffixID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8032\_3: Biometric Subject Contact Telephone - Phone Extension (PHEXT)**

**Description:**

The number for an additional telephone wired to the same telephone line as another.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ContactTelephone

Cardinality: 0..1

XML Level 2: nc:FullTelephoneNumberFullID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8032\_4: Biometric Subject Contact Telephone - Telephone Number Description Text (TELDESC)**

**Description:**

Description of the telephone number

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ContactTelephone

Cardinality: 0..1

XML Level 2: nc:TelephoneNumberDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8033: Biometric Subject Birth Location (SUBJ\_POB)**

**Description:**

Information identifying where the biometric subject was born. This field was previously 2.8004 POB in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the previously normalized field has been renamed and restructured. A new Field with ID 2.8033 has been assigned in DoD EBTS 3.0. For all location type field, city, state/province, village and comment are supported. This field has been updated to contain the GENC 3166-1 Alpha3 country code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1

Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthLocation

Cardinality: 0..1

XML Level 2: nc:AddressFullText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8033\_1: Biometric Subject Birth Location - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1

Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationCityName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8033\_2: Biometric Subject Birth Location - State / Province (STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationStateName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8033\_3: Biometric Subject Birth Location - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code.      The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8033\_4: Biometric Subject Birth Location - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8033\_5: Biometric Subject Birth Location - Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonBirthLocation

Cardinality: 0..1

XML Level 2: nc:LocationDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8034: Biometric Subject Death Location (SUBJ\_POD)**

**Description:**

Defines the biometric subject's place of death. This field was previously 2.8006 POD in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the previously normalized field has been renamed and restructured. A new Field with ID 2.8034 has been assigned in DoD EBTS 3.0. For all location type field, city, state/province, village and comment are supported. The GENC Alpha3 country code should now be used in place of the ISO 3166-1 Alpha3 country code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1

Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathLocation

Cardinality: 0..1

XML Level 2: nc:AddressFullText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8034\_1: Biometric Subject Death Location - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1

Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationCityName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8034\_2: Biometric Subject Death Location - State / Province (STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationStateName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8034\_3: Biometric Subject Death Location - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code.      The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8034\_4: Biometric Subject Death Location - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathLocation

Cardinality: 0..1

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8034\_5: Biometric Subject Death Location - Biometric Subject Death Location (COM)**

**Description:**

Comment

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
0	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonDeathLocation

Cardinality: 0..1

XML Level 2: nc:LocationDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8035: Biometric Subject Height Measurement (SUBJ\_HEIGHT)**

**Description:**

The set of data describing the height measurement including measurement range of a biometric subject. This field was previously 2.8009 HGT. Measurement Type has been removed from the set. A new field ID, 2.8035 SUBJ\_HEIGHT has been assigned by DoD EBTS 3.0. For measurement range, provide 2 subfields of the same measurement type where validity is set to estimated.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonHeightMeasure

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8035\_1: Biometric Subject Height Measurement - Height Value (HGT)**

**Description:**

The value of the height measurement. Minimum height shall be 4'0" and maximum height shall be 7'11". The metric equivalent is also allowed min = 1.22M, max = 2.41M. The following rules apply when measuring an individual's height: Height FTIN - Three-character value, the first leftmost digit is used to show feet while the two rightmost digits are used to show inches between 00 and 11. Height IN - Two-character value. Height M - Four-character value, the first leftmost digit is used.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
2	4	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
NS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonHeightMeasure

Cardinality: 0..1

XML Level 2: nc:MeasureIntegerValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8035\_2: Biometric Subject Height Measurement - Length Unit (LENUNIT)**

**Description:**

The units of measure associated with a given height measurement e.g., inches, centimeters, etc

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: UNIT OF MEASURE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonHeightMeasure

Cardinality: 0..1

XML Level 2: nc:MeasureUnitText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8035\_3: Biometric Subject Height Measurement - Measurement Validity (MEASVLD)**

**Description:**

Captures the validity of the measurement.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonHeightMeasure

Cardinality: 0..1

XML Level 2: dod-ebts:PersonMeasureValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8036: Biometric Subject Weight Measurement (SUBJ\_WEIGHT)**

**Description:**

The set of data describing the weight measurement including measurement range of a biometric subject. This field was previously 2.8010 WGT. Measurement Type has been removed from the set. A new field ID, 2.8036 SUBJ\_WEIGHT has been assigned by DoD EBTS 3.0. For measurement range, provide 2 subfields of the same measurement type where validity is set to estimated.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	1	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonWeightMeasure

Cardinality: 0..1

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8036\_1: Biometric Subject Weight Measurement - Weight Value (WGT)**

**Description:**

The value of the weight measurement. The minimum weight shall be 0 LB/KG. The maximum weight shall be 499 LB or 227 KG. Measurement shall be rounded up to the nearest pound or kilogram. Note: If the measurement is unknown but mandatory, use "000" to represent unknown measurement.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	3	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonWeightMeasure

Cardinality: 0..1

XML Level 2: nc:MeasureIntegerValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8036\_2: Biometric Subject Weight Measurement - Mass Unit (MASSUNIT)**

**Description:**

The units of measure associated with a given weight measurement e.g., pounds.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: UNIT OF MEASURE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonWeightMeasure

Cardinality: 0..1

XML Level 2: nc:measureunitText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8036\_3: Biometric Subject Weight Measurement - Measurement Validity (MEASVLD)**

**Description:**

Captures the validity of the measurement.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonWeightMeasure

Cardinality: 0..1

XML Level 2: od-ebts:PersonMeasureValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8037: Biometric Subject Eye Color (SUBJ\_EYE\_0)**

**Description:**

The color of the biometric subject's eyes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEyeColor

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8037\_0: Biometric Subject Eye Color - Subfields: Repeating sets of information items (SUBJ\_EYE)**

**Description:**

Repeating subfield for Biometric Subject Eye Color.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	2
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:PersonEyeColor

Cardinality: 0...2

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8037\_1: Biometric Subject Eye Color - Eye Position (EPOS)**

**Description:**

The position of the eye.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	EPOS = 0, 1, or 2,

Code List: EYE POSITION CODE

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEyeColor

Cardinality: 0..2

XML Level 2: biom:IrisEyePositionCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8037\_2: Biometric Subject Eye Color (ECOL)**

**Description:**

This field shall specify the subject's eye color.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: ALPHA EYE COLOR CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonEyeColor

Cardinality: 0..2

XML Level 2: nc:PersonEyeColorText

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038: Biometric Subject Group Membership (GRPMBR)**

**Description:**

This set of fields identifies the names, gender, roles, address information and contact information of an individual who is associated with the biometric subject. This field was previously 2.8017 IASSOC in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the previous normalized field has been restructured and a new Field ID 2.8038 has been assigned in DoD EBTS 3.0. This field continues to support the associated individual gender, role, name, address and contact phone. The associated individual birth date, occupation and comment have been added to the set.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_0: Biometric Subject Group Membership - Subfields: Repeating sets of information items (GRPMBR\_0)**

**Description:**

Repeating subfield for Biometric Subject Group Membership.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	100
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...100

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_1: Biometric Subject Associated Individual - Associated Individual Gender (IASSOC\_SEX)**

**Description:**

This field is used to report the gender of the associated individual. The entry is a single character selected from the look-up code list.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: GENDER CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: ebts:PersonSexCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_2: Biometric Subject Associated Individual - Associated Individual Role (IASSOC\_ROLE)**

**Description:**

The role of an individual who is affiliated with the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	see Look Up Codes

Code List: ASSOCIATED INDIVIDUAL ROLE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: dod-ebts:AssociatedIndividualRoleCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_3: Biometric Subject Associated Individual - Name - One (NAM1)**

**Description:**

The personal name of a person. It is typically the first name in western culture. Enter "UNKNOWN" if this information item is required and not available at the time of collection.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Emerging

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: nc:PersonGivenName

Cardinality: 1..1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.8038\_4: Biometric Subject Associated Individual - Name - Two (NAM2)**

**Description:**

The middle name of a person. It is placed between the first given name and the surname. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Kunya name, the person's first-born son is used as a substitute for the ism.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: nc:PersonMiddleName

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: Yes

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_5: Biometric Subject Associated Individual - Name - Three (NAM3)**

**Description:**

The last name, surname or the family name of the person. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nasab name, a patronymic or series of patronymics.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: nc:PersonSurName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_6: Biometric Subject Associated Individual - Name - Four (NAM4)**

**Description:**

A name of a person to represent the fourth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fourth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nisbah name, describes a person's occupation, geographic home area, or descent tribe, family, etc..

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: ebts:PersonFourthImportanceName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_7: Biometric Subject Associated Individual - Name - Five (NAM5)**

**Description:**

A name of a person to represent the fifth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fifth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Laqab name, intended as a description of the person. Also can be used for the honorific title.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: ebts:PersonFifthImportanceName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_8: Biometric Subject Associated Individual - Address Line 1 (ADD1)**

**Description:**

The street, including both number and name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: nc:StreetFullText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_9: Biometric Subject Associated Individual - Address Line 2 (ADD2)**

**Description:**

Additional information about the street e.g. apt #.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...100

XML Level 2: nc:StreetFullText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_10: Biometric Subject Associated Individual - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...100

XML Level 2: dod-ebts:LocationCityName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8038\_11: Biometric Subject Associated Individual - State / Province (STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: dod-ebts:LocationStateName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_12: Biometric Subject Associated Individual - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code.      The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: dod-ebts:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_13: Biometric Subject Associated Individual - Postal Code (POSTAL)**

**Description:**

Alphanumeric code assigned to groups of addresses by various national postal systems throughout the world.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...100

XML Level 2: dod-ebts:LocationPostalCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_14: Biometric Subject Associated Individual - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...100

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_15: Biometric Subject Associated Individual - Phone Number (PHNUM)**

**Description:**

The full telephone number including international country code and area code. Space and hyphen are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: nc:TelephoneNumberFullID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_16: Biometric Subject Associated Individual - Birth Date (DOB)**

**Description:**

The 8 digit calendar date for the person's birth date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	8 digit date

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0..100

XML Level 2: dod-ebts:PersonBirthDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8038\_17: Biometric Subject Associated Individual - Occupation (OCP)**

**Description:**

This free-text field contains the person's occupation. The OCP returned in a response is the same as the one submitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...100

XML Level 2: nc:EmployeeOccupationText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8038\_18: Biometric Subject Associated Individual - Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:AssociatedIndividual

Cardinality: 0...100

XML Level 2: nc:CommentText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8039: Biometric Subject Group Membership - Biometric Subject Group Membership Biometric Subject Group Membership (GRPMBR)**

**Description:**

Provide summary information on organizations the biometric subject is a member of. This field was previously 2.8018 GRPMBR in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the previous normalized field has been restructured and a new Field ID 2.8039 has been assigned in DoD EBTS 4.1. This field continues to support the group name, type, member role, address, contact phone and comment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1

Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8039\_0: Biometric Subject Group Membership - Subfields: Repeating sets of information items (GRPMBR\_0)**

**Description:**

Repeating subfield for Biometric Subject Group Membership.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	100

Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0...100

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8039\_1: Biometric Subject Group Membership - Group Name (GMNAM)**

**Description:**

The name of the group that the biometric subject is associated with.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 1..1

XML Level 2: nc:OrganizationName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8039\_2: Biometric Subject Group Membership - Group Type (GMTYP)**

**Description:**

The type of group that the biometric subject is associated with.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: GROUP TYPE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 1..1

XML Level 2: dod-ebts:OrganizationCategoryCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8039\_3: Biometric Subject Group Membership - Group Member Role (GMRL)**

**Description:**

The role within the associated group that the biometric subject is acting as.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: nc:OrganizationCategoryText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8039\_4: Biometric Subject Group Membership - Address Line 1 (ADD1)**

**Description:**

The street, including both number and name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: dod-ebts:AddressLine1

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8039\_5: Biometric Subject Group Membership - Address Line 2 (ADD2)**

**Description:**

Additional information about the street e.g. apt #.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: dod-ebts:AddressLine2

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8039\_6: Biometric Subject Group Membership - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: dod-ebts:LocationCityName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8039\_7: Biometric Subject Group Membership - State / Province (STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: dod-ebts:LocationStateName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8039\_8: Biometric Subject Group Membership - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code. The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: dod-ebts:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8039\_9: Biometric Subject Group Membership - Postal Code (POSTAL)**

**Description:**

Alphanumeric code assigned to groups of addresses by various national postal systems throughout the world.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: dod-ebts:LocationPostalCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8039\_10: Biometric Subject Group Membership - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8039\_11: Biometric Subject Group Membership - Phone Number (PHNUM)**

**Description:**

The full telephone number including international country code and area code. Space and hyphen are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: nc:TelephoneNumberFullID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8039\_12: Biometric Subject Group Membership - Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OrganizationMembership

Cardinality: 0..1

XML Level 2: nc:CommentText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8040: Biometric Subject Name (SUBJ\_NAME)**

**Description:**

The name of the biometric subject. This field was previously 2.8000 SUBJ\_NAM in DoD EBTS 2.0. To achieve better harmonization with other agencies as well to improve alignment to the NIEM XML, the previous normalized field has been restructured and a new Field ID 2.8030 has been assigned in DoD EBTS 3.0. This field continues to support Arabic names. For aliases, see Field 2.8206 SUBJ\_AKA for Biometric Subject Alternate Name.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8040\_1: Biometric Subject Name - Name - One (NAM1)**

**Description:**

The personal name of a person. It is typically the first name in western culture. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Ism name, the main name of an Arab person; his or her personal name e.g. "Kareem" or "Fatimah".

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	50	1	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: nc:PersonGivenName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8040\_2: Biometric Subject Name - Name - Two (NAM2)**

**Description:**

The middle name of a person. It is placed between the first given name and the surname. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Kunya name, the person's first-born son is used as a substitute for the ism.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: nc:PersonMiddleName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8040\_3: Biometric Subject Name - Name - Three (NAM3)**

**Description:**

The last name, surname or the family name of the person. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nasab name, a patronymic or series of patronymics.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: nc:PersonSurName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8040\_4: Biometric Subject Name - Name - Four (NAM4)**

**Description:**

A name of a person to represent the fourth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fourth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nisbah name, describes a person's occupation, geographic home area, or descent tribe, family, etc..

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: ebts:PersonFouthImportanceName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8040\_5: Biometric Subject Name - Name - Five (NAM5)**

**Description:**

A name of a person to represent the fifth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fifth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Laqab name, intended as a description of the person. Also can be used for the honoric title.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: ebts:PersonFifthImportanceName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8040\_6: Biometric Subject Name - Name Validity (NAME\_VLD)**

**Description:**

This field defines the validity of the individual's name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: dod-ebts:PersonNameValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8040\_7: Biometric Subject Name - Transliteration Code (TRANSLIT\_CD)**

**Description:**

An encoding to transcribe from one alphabet to another.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	6	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: TRANSLITERATION CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: dod-ebts:TransliterationCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8102: Encounter Mission Type (ENCTR\_MSN)**

**Description:**

The kind of mission under which the biometric subject's data was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: MISSION CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:EncounterMissionCategoryCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8103: Collection Reason (COL\_RSN)**

**Description:**

The purpose for which a biometric sample was obtained from the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionReasonText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8106: Triggering Event (EVENT)**

**Description:**

Something that happens at a given place and time that triggers subsequent collection encounter.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	Unlimited
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8106\_0: Triggering Event - Subfields: Repeating sets of information items (EVENT\_0)**

**Description:**

Repeating subfield for Triggering Event.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	*
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: New-Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8106\_1: Triggering Event - Triggering Event Identifier (EVENT\_ID)**

**Description:**

The unique identifier for the triggering event.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: nc:ActivityIdentification/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8106\_2: Triggering Event - Address Line 1 (ADD1)**

**Description:**

The street, including both number and name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: dod-ebts:AddressLine1

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8106\_3: Triggering Event - Address Line 2 (ADD2)**

**Description:**

Additional information about the street e.g. apt #.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: dod-ebts:AddressLine2

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8106\_4: Triggering Event - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: dod-ebts:LocationCityName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8106\_5: Triggering Event - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code. The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: dod-ebts:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8106\_6: Triggering Event - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8106\_7: Triggering Event - Event Description (EVENT\_DESC)**

**Description:**

The textual description of an event that triggers subsequent collection encounter.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: nc:ActivityName

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8106\_8: Triggering Event - Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: nc:ActivityDescriptionText

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8106\_9: Triggering Event - Event Status (EVENT-STATUS)**

**Description:**

The status of the related actions, events, or process steps.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: ANSI NIST ITL 2011: Update 13 Type 11 Field Addition and NIEM 3.0

Status: New-Emerging

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: nc:StatusCommentText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8106\_10: Triggering Event - Event Date (EVENT\_DATE)**

**Description:**

The date for related actions, events, or process steps.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: ANSI NIST ITL 2011: Update 13 Type 11 Field Addition and NIEM 3.0

Status: New-Emerging

XML Level 1: dod-ebts:TriggeringEvent

Cardinality: 0..\*

XML Level 2: nc:ActivityDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8107: Biometric Subject Privacy Act Indicator (PRI\_ACT)**

**Description:**

This field indicates whether U.S. citizens or U.S. persons who are being enrolled have signed a privacy act disclosure that would allow their biometrics to be captured.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: YES NO CODE

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonPrivacyActIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8108: Employment - Encounter Comment (ENCTR\_COM)**

**Description:**

The comments or notes on the encounter mission in which the biometric sample was collected including any extenuating circumstances of the encounter.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:EncounterCommentText

Cardinality: 0..1

XML Level 2: nc:CommentText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8109: Repository Candidate List (REPO\_CAN)**

**Description:**

This grouped field shall contain a candidate list. It is composed of four information items: Name of DesignatedRepository, Candidate Identifier Type, Candidate Identifier and Candidate Name. These fields will be provided for each candidate in the list.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval.

Status: Active

XML Level 1: dod-ebts:RepositoryCandidateList

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8109\_0: Repository Candidate List - Subfields: Repeating sets of information items (REPO\_CAN\_0)**

**Description:**

Repeating subfield for Repository Candidate List.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:RepositoryCandidateList

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8109\_1: Repository Candidate List - Name of Designated Repository (NDR)**

**Description:**

This field contains the numerical designation of the repository to be searched. Repository numbers are assigned by the CJIS Division. Multiple entries in this field will indicate a desire to search more than one repository.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: DESIGNATED REPOSITORY NAME

Source: Referenced by DoD EBTS 2.0.

Status: Active

XML Level 1: dod-ebts:RepositoryCandidateList

Cardinality: 0..\*

XML Level 2: nc:RepositoryID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8109\_2: Repository Candidate List - Repository Candidate Identifier Category Code (CAN\_ID\_CAT\_CD)**

**Description:**

The category of the candidate identification such as DoD Number, FBI Number, etc.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: IDENTIFIER TYPE CODES

Source: Referenced by DoD EBTS 2.0.

Status: Active

XML Level 1: dod-ebts:RepositoryCandidateList

Cardinality: 0..\*

XML Level 2: dod-ebts:RepositoryCandidateCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8109\_3: Repository Candidate List - Repository Candidate Identifier (CAN\_ID)**

**Description:**

The identifying value for the candidate's identification.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0.

Status: Active

XML Level 1: dod-ebts:RepositoryCandidateList

Cardinality: 0..\*

XML Level 2: dod-ebts:CandidateID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8109\_4: Repository Candidate List - Repository Candidate Name (CAN\_NAM)**

**Description:**

The name of a person included in a Repository Candidate List. For DoD Candidate List/Candidate Name, use the "UNKNOWN, XX" when the name of the subject is unknown and is mandatory.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0.

Status: Active

XML Level 1: dod-ebts:RepositoryCandidateList

Cardinality: 0..\*

XML Level 2: nc:PersonFullName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8110: Iris Image Omitted Reason (IOMITTED)**

**Description:**

Reason why the iris image aka Type-17 record is not present in the associated file.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: IRIS IMAGE OMITTED REASON CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:IrisImageOmittedReasoncode

Cardinality: 0..1

XML Level 2: dod-ebts:IrisImageOmittedReason

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114: Collection Location (COLL\_BLO)**

**Description:**

The field is used to capture the geographic location where the biometric sample was collected for the entire submission. This field can also be used to capture the geographic location where the Type-2 data was collected if it is captured at a different location. This field was previously 2.301 BLO in DoD EBTS 1.2 and 2.8100 COLL\_BLO with extended size in DoD EBTS 2.0. With ANSI/NIST ITL 1-2011, many logical records have included a field X.998 GEO that captures the geographic location where the data was collected. A Type-2 field is still needed for response transactions.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_0: Collection Location - Subfields: Repeating sets of information items (COLL\_BLO\_0)**

**Description:**

Repeating subfield for Collection Location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_1: Collection Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: nc:CaptureUTCDateTime/nc:DateTime

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_2: Collection Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	=90 <= LTD <= 90

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..\*

XML Level 2: nc:LatitudeDegreeValue

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_3: Collection Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	0 <= LTM < 60

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..\*

XML Level 2: nc:LatitudeMinuteValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_4: Collection Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	0 <= LTS < 60

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: nc:LatitudeSecondValue

Cardinality: 0...1

XML Level 3: nc:GeographicCoordinateLongitude

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_5: Collection Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	=-80 <= LGD <= 180

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: nc:LongitudeDegreeValue

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_6: Collection Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	0 <=LGS<60

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..\*

XML Level 2: nc:LongitudeMinuteValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_7: Collection Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	0 <=LGM<60

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..\*

XML Level 2: nc:LongitudeSecondValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_8: Collection Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	-422.000 <ELE< 8848.000; real number

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: nc:LocationElevation

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_9: Collection Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: biom:GeodeticDatumCoordinateSystemCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8114\_10: Collection Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter). Geographic coordinate universal transverse mercator zone / GCM; geographic coordinate universal transverse mercator easting / GCE; and geographic coordinate universal transverse mercator northing /GCN are treated as a group and are optional as a group – however, if one appears all three shall be present (thus they are listed as Dependent in the record layout table). These three information items together are a coordinate which represents allocation with a Universal Transverse Mercator (UTM) coordinate.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	One or two integers followed by a single letter

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail  
Cardinality: 0...\*

XML Level 2: nc:LocationUTMCoordinateValue  
Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_11: Collection Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	integer

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail  
Cardinality: 0...\*

XML Level 2: nc:LocationUTMCoordinateValue  
Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_12: Collection Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	integer

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: nc:LocationUTMCoordinateValue

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_13: Collection Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: nc:LocationDescriptionText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_14: Collection Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information items specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..\*

XML Level 2: nc:GeographicLocationSystemName

Cardinality: 1..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8114\_15: Collection Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html> .

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..\*

XML Level 2: nc:GeographicLocationText

Cardinality: 1..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8114\_16: Collection Location - City (CITY)**

**Description:**

Name of the city.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: dod-ebts:LocationCityName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_17: Collection Location - State / Province (STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0...\*

XML Level 2: dod-ebts:LocationStateName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_18: Collection Location - Country Code (CTRY)**

**Description:**

The GENC alpha3 country code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: GENC ALPHA3 CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:CollectionLocationDetail

Cardinality: 0..\*

XML Level 2: dod-ebts:LocationCountryGENCCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8114\_19: Collection Location - Village (VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:LocationVillageName

Cardinality: 0..\*

XML Level 2: dod-ebts:village

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8114\_20: Collection Location - Record Category Code Referenced (REC)**

**Description:**

The code for the logical record referenced. Type-2 would display as 02. 00 = entire submission.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:RecordCategoryCode

Cardinality: 0...\*

XML Level 2: dod-ebts:RecordCategoryCode

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115: Operational Personnel (OPER)**

**Description:**

This set of fields shall identify the name information, contact information, unit/organization, role, rank/grade, identification type and the identification identifier of the personnel assigned to specific day-to-day responsibility for program activities.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

## Type-2: User-Defined Descriptive Text

### 2.8115\_0: Operational Personnel - Subfields: Repeating sets of information items (OPER\_0)

**Description:**

Repeating subfield for Operational Personnel.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	20
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..20

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

### 2.8115\_1: Operational Personnel - Operational Personnel Unit/Organization (OPORG)

**Description:**

The name or identifier for the operational unit or organization the Operational Personnel belongs to.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..1

XML Level 2: dod-ebts:OperationalUnitName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8115\_2: Operational Personnel - Operational Personnel Role (OPRL)**

**Description:**

The role of the Operational Personnel.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: OPERATIONAL PERSONNEL CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..1

XML Level 2: dod-ebts:OperationalPersonnelCategoryCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115\_3: Operational Personnel - Rank Grade Code (RANK)**

**Description:**

The military rank or civilian rank of the person.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Code List: MILITARY RANK GRADE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..1

XML Level 2: dod-ebts:RankGradeCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8115\_4: Operational Personnel - US Person Indicator (USIND)**

**Description:**

The indicator of whether an individual is a citizen of the United States, an alien lawfully admitted for permanent residence in the United States, or a member of the U.S. Armed Forces.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: YES NO CODE

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..1

XML Level 2: dod-ebts:USPersonIndicator or od-ebts:OperationalPersonnelIdentification

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115\_5: Operational Personnel - Operational Personnel Identifier Type (OPIDCATCD)**

**Description:**

The type of unique identifier of the Operational Personnel, such as Social Security Number.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	1	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: OPERATIONAL PERSONNEL IDENTIFIER CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..1

XML Level 2: dod-ebts:OperationalPersonnelIDCategoryCode

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8115\_6: Operational Personnel - Operational Personnel Identifier (OPID)**

**Description:**

The value of the unique identifier of the Operational Personnel, such as Social Security Number.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..1

XML Level 2: dod-ebts:OperationalPersonnelID/nc:IdentificationID

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115\_7: Operational Personnel - Name - One (NAM1)**

**Description:**

The personal name of a person. It is typically the first name in western culture. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Ism name, the main name of an Arab person; his or her personal name e.g. "Kareem" or "Fatimah".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: nc:PersonGivenName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8115\_8: Operational Personnel - Name - Two (NAM2)**

**Description:**

The middle name of a person. It is placed between the first given name and the surname. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Kunya name, the person's first-born son is used as a substitute for the ism.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: nc:PersonMiddleName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115\_9: Operational Personnel - Name - Three (NAM3)**

**Description:**

The last name, surname or the family name of the person. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nasab name, a patronymic or series of patronymics.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: nc:PersonSurName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8115\_10: Operational Personnel - Name - Four (NAM4)**

**Description:**

A name of a person to represent the fourth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fourth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Nisbah name, describes a person's occupation, geographic home area, or descent tribe, family, etc..

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: ebts:PersonFouthImportanceName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115\_11: Operational Personnel - Name - Five (NAM5)**

**Description:**

A name of a person to represent the fifth name for a culture using four or five names e.g., a tribal or village name. It will be given the ranking of fifth importance of naming in the culture from which the person is associated. Enter "UNKNOWN" if this information item is required and not available at the time of collection. Can be mapped to the Arabic Laqab name, intended as a description of the person. Also can be used for the honoric title.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: ebts:PersonFifthImportanceName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8115\_12: Operational Personnel - Name Validity (NAME\_VLD)**

**Description:**

This field defines the validity of the individual's name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: VALIDITY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: dod-ebts:PersonNameValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115\_13: Operational Personnel - Transliteration Code (TRANSLIT\_CD)**

**Description:**

An encoding to transcribe from one alphabet to another.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	6	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: TRANSLITERATION CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:PersonName

Cardinality: 0..1

XML Level 2: dod-ebts:TransliterationCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8115\_14: Operational Personnel - Phone Number (PHNUM)**

**Description:**

The full telephone number including international country code and area code. Space and hyphen are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0...1

XML Level 2: nc:ContactTelephoneNumber or nc:FullTelephoneNumber or nc:TelephoneNumberFullID

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8115\_15: Operational Personnel - Email Address (EMAIL)**

**Description:**

Identifies an email box to which email messages are delivered. Application Profile might be more specific to what characters are allowed to be entered for the email address.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	254	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:OperationalPersonnel

Cardinality: 0..1

XML Level 2: nc:ContactEmailID

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8116: Transportation (TRANSPORT)**

**Description:**

A set of fields for capturing the method of transportation on which the biometric subject was encountered, the type of identification and identifier assigned to the conveyance. This field was previously 2.8105 CONVEY in DoD EBTS 2.0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Transportation

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8116\_1: Transportation - Transport Type (TRANSPORT\_TYP)**

**Description:**

The category of transportation on which the biometric subject was encountered. Additional valid values for TRUCK, BUS, BIKE, MTRB, ANML, and TRAIN have been added.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: TRANSPORTATION TYPE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Transportation

Cardinality: 0..1

XML Level 2: dod-ebts:TransportCategoryCode

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8116\_2: Transportation - Transport Identifier Category Code (TRANSPORT\_IDCATCD)**

**Description:**

The type of identification assigned to a conveyance.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	20	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: TRANSPORTATION IDENTIFIER TYPE CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:TransportCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:TransportIDCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8116\_3: Transportation - Transport Identifier (TRANSPORT\_ID)**

**Description:**

The identifier assigned to a conveyance.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:TransportCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:TransportID/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8116\_4: Transportation - Transport Make (TRANSPORT\_MAK)**

**Description:**

The manufacturer of the transportation device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:TransportCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:TransportMakeName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8116\_5: Transportation - Transport Model (TRANSPORT\_MOD)**

**Description:**

The model number of the transportation device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:TransportCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:TransportModelName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8116\_6: Transportation - Transport Model Year (TRANSPORT\_MODYR)**

**Description:**

The model year of the transportation device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYY	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:TransportCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:TransportModelYear

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8116\_7: Transportation - Transport Color (TRANSPORT\_COL)**

**Description:**

The primary color of the transportation device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:TransportCategoryCode

Cardinality: 0..1

XML Level 2: dod-ebts:TransportColorDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8116\_8: Transportation - Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard. The FBI field 2.067 Image Capture Equipment is only used with fingerprint image capture equipment. A new field 2.8118 has been created to close the gap to capture the MMS information for Type-2 or the entire submission. An information item for Record Category Code has also been added to allow designation which logical record the information does pertain to, either the entire submission or just the Type-2 data only.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:TransportCategoryCode

Cardinality: 0..1

XML Level 2: nc:CommentText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8117: Facial Image Omitted Reason (FOMITTED)**

**Description:**

Reason why the facial image aka as full frontal pose Type-10 record is not present in the associated file.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: FACIAL IMAGE OMITTED REASON

Source: BSWG

Status: Active

XML Level 1: dod-ebts:FacialImageMissingReasonCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8118: Collection Equipment Make/Model/Serial Number (COLL\_MMS\_0)**

**Description:**

This field is used to capture the Make, Model and Serial Number MMS of the equipment used to collect data for the entire submission. This field can also be used to indicate of the equipment used to capture just the Type-2 data. With ANSI/NIST ITL 1-2011, many logical records include a field X.904 MMS and 17.019 MMS that capture the make/model/serial number of the equipment the sample was collected with. A Type-2 field is still needed to capture the MMS information for just the Type-2 data or for the entire submission.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8118\_0: Collection Equipment Make/Model/Serial Number - Subfields: Repeating sets of information items (COLL\_MMS)**

**Description:**

Repeating subfield for Collection Equipment Make/Model/Serial Number.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

## Type-2: User-Defined Descriptive Text

### 2.8118\_1: Collection Equipment Make/Model/Serial Number - Make (MAK)

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0...1

XML Level 2: dod-ebts:CaptureDeviceMakeText

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

### 2.8118\_2: Collection Equipment Make/Model/Serial Number - Model (MOD)

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0...1

XML Level 2: dod-ebts:CaptureDeviceModelText

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8118\_3: Collection Equipment Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0...1

XML Level 2: nc:ItemSerialIdentification

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8118\_4: Collection Equipment Make/Model/Serial Number - Record Category Code Referenced (REC)**

**Description:**

The code for the logical record referenced. Type-2 would display as 02.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: RECORD CATEGORY CODE REFERENCED CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0...1

XML Level 2: dod-ebts:RecordCategoryCode

Cardinality: 1...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8118\_5: Collection Equipment Make/Model/Serial Number - Capture Location (CAPT\_LOC)**

**Description:**

A location where a biometric sample was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: nc:LocationDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8118\_6: Collection Equipment Make/Model/Serial Number - Capture UTC (CAPT.UTC)**

**Description:**

A UTC date and time for the capture of a biometric sample.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: biom:CaptureUTCDateTime/nc:DateTime

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8118\_7: Collection Equipment Make/Model/Serial Number - Capture Date (CAPT\_DATE)**

**Description:**

A date that an image was captured.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: biom:CaptureDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8118\_8: Collection Equipment Make/Model/Serial Number - Device Identification (CAPT\_ID)**

**Description:**

An identification of a capture device or source of an image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: dod-ebts:CaptureDeviceID/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8118\_9: Collection Equipment Make/Model/Serial Number - Capture Organization (CAPT\_ORG)**

**Description:**

An organization that originally captured an image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: nc:OrganizationName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8118\_10: Collection Equipment Make/Model/Serial Number - Capture Resolution (CAPT\_RESOL)**

**Description:**

A data concept for a minimum or native resolution.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	25	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: dod-ebts:CaptureResolution

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8118\_11: Collection Equipment Make/Model/Serial Number - Capture Vertical Pixel Density Value (CAPT\_PIXEL)**

**Description:**

A scanned pixel density in the vertical direction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	25	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: Active

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: biom:CaptureVerticalPixelDensityValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8118\_12: Collection Equipment Make/Model/Serial Number - Capture Device Monitoring Mode (CAPT\_MONITOR)**

**Description:**

A data concept for a level of human monitoring for an image capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	25	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: NIEM Biometric Domain

Status: New-Emerging

XML Level 1: dod-ebts:ImageCapture

Cardinality: 0..1

XML Level 2: biom:CaptureDeviceMonitoringMode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8203: Template Extraction Algorithm (TEA)**

**Description:**

The algorithm used to extract template data from an existing biometric image. It consists of Template Extraction Algorithm Name and Template Extraction Algorithm Version.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: Developed for Blue Force capability.

Status: Active

XML Level 1: dod-ebts: TemplateExtractionAlgorithm

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8203\_1: Template Extraction Algorithm Name - Template Extraction Algorithm Version (TEA\_NAME)**

**Description:**

The name of the algorithm used to extract template data from an existing biometric image.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	100	1	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
AN	N/A	N/A	N/A

Source: Developed for Blue Force capability.

Status: Active

XML Level 1: dod-ebts:TemplateExtractionAlgorithm

Cardinality: 0..1

XML Level 2: dod-ebts:ExtractionAlgorithmName

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8203\_2: Template Extraction Algorithm - Template Extraction Algorithm Version (TEA\_VER)**

**Description:**

The version of the algorithm used to extract template data from an existing biometric image.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	10	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
U	N/A	N/A	N/A

Source: Developed for Blue Force capability.

Status: Active

XML Level 1: dod-ebts:TemplateExtractionAlgorithm

Cardinality: 0..1

XML Level 2: dod-ebts:ExtractionAlgorithmVersion

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8206: Additional Response (ARSP)**

**Description:**

This set of fields shall be used in responses when an additional repository has been searched. It contains information received from the repository that generated an additional response. Multiple repositories may be searched, therefore multiple occurrences of this field shall be allowed. It consists of Response Source, Response Result, Response Identifier, and Response Rap Sheet.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required. Pending approval

Status: Active

XML Level 1: dod-ebts:AdditionalResponse

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8206\_0: Additional Response - Subfields: Repeating sets of information items (ARSP\_0)**

**Description:**

Repeating subfield for Additional Response.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:AdditionalReponse

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8206\_1: Additional Response - Name of Designated Repository (NDR)**

**Description:**

This field contains the numerical designation of the repository to be searched. Repository numbers are assigned by the CJIS Division. Multiple entries in this field will indicate a desire to search more than one repository. This field identifies the repository that generated the additional response.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: DESIGNATED REPOSITORY NAME

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:AdditionalReponse

Cardinality: 0..\*

XML Level 2: ebts:RecordFBIRepositoryCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8206\_2: Additional Response - Additional Response Result Code (RSLTCD)**

**Description:**

This field contains the result generated by the repository that generated the additional response.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: ADDITIONAL RESPONSE RESULT CODES

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:AdditionalReponse

Cardinality: 0..\*

XML Level 2: dod-ebts:ResultCode/nc:IdentificationID

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8206\_3: Additional Response - Additional Response Identifier Category Code (ARIDCATCD)**

**Description:**

The category of the additional response identification such as DoD Number, FBI Number, etc.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: IDENTIFIER TYPE CODES

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:AdditionalReponse

Cardinality: 0..\*

XML Level 2: dod-ebts:ResponseIdentifierCategoryCode

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8206\_4: Additional Response - Additional Response Identifier (ARID)**

**Description:**

This conditional field shall contain the unique identifier used or generated by the repository that generated the additional response.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:AdditionalReponse

Cardinality: 0..\*

XML Level 2: dod-ebts:ReponseID/nc:IdentificationID

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8206\_5: Additional Response - Additional Response Rap Sheet (ERS)**

**Description:**

This conditional field contains the electronic rap sheet generated by the Secondary Search Repository in the case of an Ident. In the case of an error, this field shall contain the error message returned by the repository that generated the additional response.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200,000	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:AdditionalReponse

Cardinality: 0..\*

XML Level 2: ebts:TransactionElectronicRapSheetTex

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8207: Request Secondary Search (SCND\_SRCH)**

**Description:**

This set of fields, if provided, shall indicate which repository, the transaction type and secondary search retention indicator for a secondary search. The default is NOT to send the EBTS file to any other repository, unless secondary search is requested. Coordination required with DFBA Standards Branch before uage.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:SecondarySearch

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8207\_1: Request Secondary Search - Name of Designated Repository (NDR)**

**Description:**

This field contains the numerical designation of the repository to be searched. Repository numbers are assigned by the CJIS Division. Multiple entries in this field will indicate a desire to search more than one repository. A submission will be submitted to the primary repository via the DoD EBTS. This field indicates which additional repository should be searched using the same information.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: DESIGNATED REPOSITORY NAME

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:SecondarySearch

Cardinality: 0..1

XML Level 2: ebts:RecordFBIRepositoryCode

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	Yes	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8207\_2: Request Secondary Search - Request Secondary Search Transaction Type (TOT)**

**Description:**

This field specifies the ToT for the Secondary Search

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	100	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see ToT Codes

Code List: TOT CODES

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:SecondarySearch

Cardinality: 0..1

XML Level 2: dod-ebts:RecordTransactionCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8207\_3: Request Secondary Search - Secondary Search Retention Indicator (RET)**

**Description:**

A value of “Y” means retention is acceptable, a value of “N” means the secondary repository should not retain the submission. Secondary repositories are not necessarily bound by this field and policy may override the value present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	see Look Up Codes

Code List: SEARCH RETENTION CODES

Source: Referenced by DoD EBTS 2.0. Coordination with DoD ABIS required.

Status: Active

XML Level 1: dod-ebts:SecondarySearch

Cardinality: 0..1

XML Level 2: dod-ebts:RetentionIndicator

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8399: Caveat (CAV)**

**Description:**

The Caveat set allows an EBTS file to be annotated with caveat, usage or handling instructions, disclaimer or general information. The set consists of 6 information items: Caveat Originator Country Code, Caveat Originating Agency Name, Caveat Originating Agency Identifier, Caveat Date, Caveat Type and Caveat Text. Example: **\*\*For US DoD training purposes only\*\*** This data is provided by Freedomian Forces to your forces//agency//department in confidence, for internal use only. It can only be used to support Operation Global Mission mandates and must not be used in a manner inconsistent with international law. Data must be extinguished from any record under the control of your forces//agency//department 5 years after input the latest, unless the individual poses a current threat. Any use of this data for purposes outside of the above mandate requires prior approval by the Government of Freedomia. **\*\*For US DoD training purposes only\*\***

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	ge	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8399\_0: Caveat - Subfields: Repeating sets of information items (CAV\_0)**

**Description:**

Repeating subfield for Caveat.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	4
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8399\_1: Caveat - Caveat Originating Agency Country Code (CAV\_CNTRY\_CD)**

**Description:**

The GENC alpha3 country code of the organization originating the caveat. The DoD EBTS Default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: nc:LocationCountryGENCCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8399\_2: Caveat - Caveat Originating Agency Name (CAV\_ORI\_NAME)**

**Description:**

The name of the administration or organization originating the caveat.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatOriginatingAgencyName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8399\_3: Caveat - Caveat Originating Agency Identifier (CAV\_ORI)**

**Description:**

The identifier of the administration or organization originating the caveat. In some cases, the Caveat Originating Agency is not the same as the Transaction Originating Agency specified in Field 1.008. The Caveat ORI might not be known. Enter 'XXXXXXXXXX' if the identifier is not applicable.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
9	9	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatOriginatingAgencyIdentification/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8399\_4: Caveat - Caveat Date (CAV\_DT)**

**Description:**

The date when the caveat is published.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8399\_5: Caveat - Caveat Category Code (CAV\_CAT\_CD)**

**Description:**

The kind of caveat described in the text field. Ex: CAVEAT / USAGE / INFO / DISCLAIMER / HANDELING.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: CAVEAT CATEGORY CODES

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8399\_6: Caveat - Caveat Text (CAV\_TXT)**

**Description:**

The specific text for the type of caveat including retention and restriction requirements. For example, words describing the retention, non-releasability and searching restriction may be in the 'Caveat Text' information item. The first 1500 characters should be used for the Caveat Text itself. The remaining portion is opened for other usage

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	30000	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: BSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: nc:CaveatText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: Yes      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8399\_7: Caveat - Caveat Releasability (CAV\_REL)**

**Description:**

This text contains the releasability requirements for the data in the transmission.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	30000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: FBSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatReleasability

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8399\_8: Caveat - Caveat Originating Country POC Information (CAV\_CNT\_POC)**

**Description:**

Point of Contact information for the country or agency which originating the caveat.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	30000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: FBSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatOriginatingCountryPOC

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8399\_9: Caveat - Caveat Adjudicator POC Information (CAV\_ADJ\_POC)**

**Description:**

Point of Contact information for the individual adjudicating the data to generate caveat information.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	30000	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: FBSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatAdjudicatorPOC

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8399\_10: Caveat - Caveat Source Reliability (CAV\_SRC)**

**Description:**

A code describing the reliability of the source of the information provided, ranging from "Reliable" (A) to "Unreliable" (E). In every instance the reporting is based on previous reporting from the source. If there has been no previous reporting, the source must be rated as "Cannot Be Judged" (F). An "F" rating does not necessarily mean that the source cannot be trusted, but that there is no reporting history and therefore no basis for making a determination. See Look Up Codes for valid entries.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: SOURCE RELIABILITY CODES

Source: FBSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatSourceReliability

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8399\_11: Caveat - Caveat Content Reliability (CAV\_CON)**

**Description:**

A code describing the reliability of the content of the information provided. The highest degree of confidence in reported information is given to that which has been confirmed by outside sources. The degree of confidence decreases if the information is not confirmed, and/or does not make logical sense. The lowest evaluation rating of "5" means that the information is considered to be false. A rating of "6" does not necessarily mean false information, but is generally used to indicate that no determination can be made since the information is completely new. See Look Up Codes for valid entries.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1

Character Types	Special Characters	Format	Constraints
A	N/A	N/A	See Look Up Codes

Code List: INFORMATION CONTENT RELIABILITY CODES

Source: FBSWG

Status: Active

XML Level 1: dod-ebts:Caveat

Cardinality: 0..4

XML Level 2: dod-ebts:CaveatContentReliability

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8502: Access Location Badge Color (BADGE\_CLR)**

**Description:**

The subject's level of badge color. The set consists of the badge color and the authority approval status code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1

Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Active

XML Level 1: dod-ebts:AccessLocationBadgeColor

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8502\_1: Access Location Badge Color - Badge Color Code (BADGE\_CLR\_CD)**

**Description:**

The badge color assigned to subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: BADGE COLOR CODES

Source: Developed for Base Access capability.

Status: Active

XML Level 1: dod-ebts:AccessLocationBadgeColor

Cardinality: 0..1

XML Level 2: dod-ebts:BadgeColorCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8502\_2: Access Location Badge Color - Badge Clearance Code (BADGE\_CLR\_AUTH\_CD)**

**Description:**

The level of the authority and approval status obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: AUTHORITY APPROVAL STATUS CODES

Source: Developed for Base Access capability.

Status: Active

XML Level 1: dod-ebts:AccessLocationBadgeColor

Cardinality: 0..1

XML Level 2: dod-ebts:BadgeClearanceCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8505: Screening Document Requirement Indicator (LEP)**

**Description:**

An indicator for the Locally Employed Personnel LEP Screening Document is required for applicants for the type of badge requested. As a general guideline, the LEP Screening Document is required for applicants wanting a Red, Yellow, or Orange badge; however the requirement can be overridden based on local security requirements.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: SCREENING DOCUMENT REQUIREMENT INDICATOR CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:LocallyEmployedIndicator

Cardinality: 0..1

XML Level 2: nc:DocumentTitleText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8507: Project Name (PROJ)**

**Description:**

The name of the project under which employment access is being requested.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	30	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Blue Force capability.

Status: Emerging

XML Level 1: dod-ebts:Project

Cardinality: 0..\*

XML Level 2: nc:ActivityName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8508: Contract (CONTRACT)**

**Description:**

The set consists of the contract number and the contract expiration date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Blue Force capability.

Status: Emerging

XML Level 1: dod-ebts:Contract

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8508\_0: Contract - Subfields: Repeating sets of information items (CONTRACT\_0)**

**Description:**

Repeating subfield for Contract.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:Contract

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8508\_1: Contract - Contract Number (CNTRACT\_NUM)**

**Description:**

The number identifying the legal agreement with an employer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	58	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Blue Force capability.

Status: Emerging

XML Level 1: dod-ebts:Contract

Cardinality: 0..\*

XML Level 2: nc:DocumentIdentification/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8508\_2: Contract - Contract Expiration Date (CNTRACT\_EXPDT)**

**Description:**

The date on which the contract with the employer expires.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	YYYYMMDD	N/A

Source: Developed for Blue Force capability.

Status: Emerging

XML Level 1: dod-ebts:Contract

Cardinality: 0..\*

XML Level 2: dod-ebts:ContractExpirationDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8509: Access Location Badge (BADGE)**

**Description:**

The subject's badge for an access location. The set consists of the badge number, badge color code, badge status code, issue date, expiration date, issuance organization, and issuance office.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8509\_0: Access Location Badge - Subfields: Repeating sets of information items (BADGE\_0)**

**Description:**

Repeating subfield for Access Location Badge.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8509\_1: Access Location Badge - Access Location Badge Number (BADGE\_NUM)**

**Description:**

The designated number on the badge.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..\*

XML Level 2: dod-ebts:BadgeNumber

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8509\_2: Access Location Badge - Access Location Badge Color Code (BADGE\_CLR\_CD)**

**Description:**

The badge color assigned to subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: BADGE COLOR CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..\*

XML Level 2: dod-ebts:BadgeColorCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8509\_3: Access Location Badge - Access Location Badge Status Code (BADGE\_STAT\_CD)**

**Description:**

The status of an identification badge, such as valid, replaced, expired.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: BADGE STATUS CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..\*

XML Level 2: dod-ebts:BadgeStatusCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8509\_4: Access Location Badge - Access Location Badge Issue Date (BADGE\_ISSDT)**

**Description:**

The date the badge was issued.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..\*

XML Level 2: nc:IdentificationEffectiveDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8509\_5: Access Location Badge - Access Location Badge Expiration Date (BADGE\_EXPDT)**

**Description:**

A date after which the badge is no longer valid.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..\*

XML Level 2: nc:IdentificationExpirationDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8509\_6: Access Location Badge - Access Location Badge Issuance Organization Name (BADGE\_ISSORG)**

**Description:**

The name of the organization or system that issued the badge.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadge

Cardinality: 0..\*

XML Level 2: OrganizationName/nc:TextType

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8510: Access Location (ACC\_LOC\_APT\_PERM)**

**Description:**

The subject's level of airport installation access. The set consists of the airport installation type, the force protection condition and the authority approval status code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationInstalationPermission

Cardinality: 0..1

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8510\_0: Access Location - Subfields: Repeating sets of information items (ACC\_LOC\_APT\_PERM\_0)**

**Description:**

Repeating subfield for Access Location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AccessLocationInstalationPermission

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8510\_1: Access Location - Access Location Airport Installation Category Code  
(ACC\_LOC\_APT\_PERM\_APT\_LOC\_TYP)**

**Description:**

The type of airport installation at an access location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Code List: AIRPORT INSTALLATION CODES

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationInstallationPermission

Cardinality: 0..\*

XML Level 2: dod-ebts:AirportInstallationCode"

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8510\_2: Access Location - Force Protection Condition Code (ACC\_LOC\_APT\_PERM\_FP\_CD)**

**Description:**

A DoD-approved system standardizing DoD's identification of and recommended preventive actions and responses to terrorist threats against U.S. personnel and facilities. The system is the principal means for a commander to apply an operational decision on how to protect against terrorism and facilitates coordination among DoD Components and support for antiterrorism activities.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	7	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: FORCE PROTECTION CONDITION CODES

Source: Developed for Base Access capability. Pending approval. Codes are source from DoD Instructions 2000.17.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationInstallationPermission

Cardinality: 0..\*

XML Level 2: dod-ebts:ForceProtectionConditionCode

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
---------------	----	---------------	----	---------------	-----	---------------	-----

Type-2: User-Defined Descriptive Text

**2.8510\_3: Access Location - Authority Approval Status Code (ACC\_LOC\_APT\_PERM\_AUTH\_CD)**

**Description:**

The level of the authority and approval status obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: AUTHORITY APPROVAL STATUS CODES

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationInstalationPermission

Cardinality: 0..\*

XML Level 2: dod-ebts:AuthorityApprovalStatusCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8511: Access Location Required Month (ACC\_LOC\_MONTH)**

**Description:**

The subject's level of months access required for a location. The set consists of the months the access is required and the authority approval status code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationRequiredMonth

Cardinality: 0..1

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8511\_0: Access Location Required Month - Subfields: Repeating sets of information items (ACC\_LOC\_MONTH\_0)**

**Description:**

Repeating subfield for Access Location Required Month.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	*
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AccessLocationRequiredMonth

Cardinality: 0..\*

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8511\_1: Access Location Required Month - Month Number (ACC\_LOC\_MONTH\_VAL)**

**Description:**

A two-digit month of the year, 01 through 12.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
2	2	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N	N/A	MM - 2 digit month	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationRequiredMonth

Cardinality: 0..\*

XML Level 2: dod-ebts:MonthNumber

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
---------------	----	---------------	----	---------------	-----	---------------	-----

Type-2: User-Defined Descriptive Text

**2.8511\_2: Access Location Required Month - Authority Approval Status Code (ACC\_LOC\_MONTH\_AUTH\_CD)**

**Description:**

The level of the authority and approval status obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: AUTHORITY APPROVAL STATUS CODES

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationRequiredMonth

Cardinality: 0..\*

XML Level 2: dod-ebts: AuthorityApprovalStatusCode/nc:IdentificationType

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8512: Access Location Required Day of the Week (ACC\_LOC\_WKDAY)**

**Description:**

The subject's level of days of the week access is required for a location. The set consists of the weekdays access is required and the authority approval status code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationRequiredDay

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8512\_1: Access Location Required Day of the Week - Weekday Number (ACC\_LOC\_WKDAY\_NUM)**

**Description:**

The weekday number, from 1 through 7, beginning with Monday and ending with Sunday.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationRequiredDay

Cardinality: 0..1

XML Level 2: dod-ebts:WeekdayNumber

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8512\_2: Access Location Required Day of the Week - Authority Approval Status Code (ACC\_LOC\_WKDAY\_AUTH\_CD)**

**Description:**

The level of the authority and approval status obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: AUTHORITY APPROVAL STATUS CODES

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationRequiredDay

Cardinality: 0..1

XML Level 2: dod-ebts:AuthorityApprovalStatusCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8513: Access Location Badge Replacement (BADGE\_RPL)**

**Description:**

The subject's badge replacement information. The set contains the replacement reason code and the badge number that is being replaced.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadgeReplace

Cardinality: 0..1

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8513\_1: Access Location Badge Replacement - Access Location Badge Replacement Reason Code (BADGE\_RPL\_REASON\_CD)**

**Description:**

The code indicating the reason the badge is being replaced.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: BADGE REPLACEMENT REASON CODES

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadgeReplace

Cardinality: 0..1

XML Level 2: dod-ebts:BadgeReplacementReasonCode

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
---------------	----	---------------	----	---------------	-----	---------------	-----

Type-2: User-Defined Descriptive Text

**2.8513\_2: Access Location Badge Replacement - Access Location Replaced Badge Number (BADGE\_RPL\_BADGE\_NUM)**

**Description:**

The number of the badge being replaced.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationBadgeReplace

Cardinality: 0..1

XML Level 2: dod-ebts:ReplacedBadgeNumber

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8514: Access Location Privilege (ACC\_LOC\_PRIV)**

**Description:**

The subject's level of access privileges. The set consists of the privilege type, the privilege value, the force protection condition and the authority approval status code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationPrivilege

Cardinality: 0..1

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8514\_0: Access Location Privilege - Subfields: Repeating sets of information items (ACC\_LOC\_PRIV\_0)**

**Description:**

Repeating subfield for Access Location Privilege.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AccessLocationPrivilege

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8514\_1: Access Location Privilege - Access Location Privilege Category Code (ACC\_LOC\_PRIV\_TYP)**

**Description:**

The type of privilege allowed at an access location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: ACCESS LOCATION PRIVILEGE CODES

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationPrivilege

Cardinality: 0..\*

XML Level 2: dod-ebts:AccessLocationPrivilegeCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8514\_2: Access Location Privilege - Access Location Privilege Value (ACC\_LOC\_PRV\_VAL)**

**Description:**

The value of the assigned privilege. e.g. When the Access Location Privilege Category Code = LA for Lane Access, the value might be 'Military' or 'Priority' or 'Regular'

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability. Pending approval.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationPrivilege

Cardinality: 0..\*

XML Level 2: dod-ebts:AccessLocationPrivilegeValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8515: Access Location (ACC\_LOC)**

**Description:**

Specifies the location for access. The set consists of the Location Name, Address Value Type, Address Value, Latitude Degree/Minute/Second, Longitude Degree/Minute/Second and Location Description.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8515\_0: Access Location - Subfields: Repeating sets of information items (ACC\_LOC\_0)**

**Description:**

Repeating subfield for Access Location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8515\_1: Access Location - Location Name (ACC\_LOC)**

**Description:**

The name of a geographical location. e.g. Fort Belvoir

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	250	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: dod-ebts:AccessLocationName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8515\_2: Access Location - Country Code (ACC\_LOC\_CNTRY\_CD)**

**Description:**

The GENC alpha3 country code. The DoD EBTS v4.1 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LocationCountryISO3166Alpha3Code

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8515\_3: Access Location - State / Province (ACC\_LOC\_STATE)**

**Description:**

The state, province or subdivision of a location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	free text

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LocationStateName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8515\_4: Access Location - City (ACC\_LOC\_CITY)**

**Description:**

The name of the city or geographical location. e.g. Fort Belvoir.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LocationCityName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8515\_5: Access Location - Village (ACC\_LOC\_VLG)**

**Description:**

Small population unit, typically rural, held together by common economic and political ties.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: dod-ebts:LocationVillageName

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8515\_6: Access Location - Latitude Degree (ACC\_LOC\_GEO\_CORD\_LAT\_DEG)**

**Description:**

This field contains the latitude at which the submission was collected. The data is in degrees in the range +90 to -90. The plus sign may be omitted. Decimal values are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	1	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LatitudeDegreeValue

Cardinality: 1..1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: No

DoD EBTS 4.1: Yes

**2.8515\_7: Access Location - Latitude Minute (ACC\_LOC\_GEO\_CORD\_LAT\_MIN)**

**Description:**

This field contains the geographic location latitude. The data is in minutes in the range from 0 to less than 60.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LatitudeMinuteValue

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: No

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8515\_8: Access Location - Latitude Second (ACC\_LOC\_GEO\_CORD\_LAT\_SEC)**

**Description:**

This field contains the geographic location latitude. The data is in seconds in the range from 0 to less than 60. Decimal values are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LatitudeSecondValue

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

**2.8515\_9: Access Location - Longitude Degree (ACC\_LOC\_GEO\_CORD\_LONG\_DEG)**

**Description:**

This field contains the geographic location longitude. The data is in the range of +180 to -180. The plus sign may be omitted. Decimal values are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	1	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LongitudeDegreeValue

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8515\_10: Access Location - Longitude Minute (ACC\_LOC\_GEO\_CORD\_LONG\_MIN)**

**Description:**

This field contains the geographic location longitude. The data is in minutes in the range from 0 to less than 60. Decimal values are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LongitudeMinuteValue

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: No

DoD EBTS 4.1: Yes

**2.8515\_11: Access Location - Longitude Second (ACC\_LOC\_GEO\_CORD\_LONG\_SEC)**

**Description:**

This field contains the geographic location latitude. The data is in seconds in the range from 0 to less than 60. Decimal values are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:LongitudeSecondValue

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: No

DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8515\_12: Access Location - Location Description (ACC\_LOC\_DESC)**

**Description:**

Remarks

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocation

Cardinality: 0..\*

XML Level 2: nc:AreaDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

**2.8516: Access Location Expiration (ACC\_LOC\_EXP)**

**Description:**

The subject's expiration for the access location. The set is comprised of 2 information items: Access Location Expiration Date and Authority Approval Status Code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationExpiration

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8516\_0: Access Location Expiration - Subfields: Repeating sets of information items (ACC\_LOC\_EXP\_0)**

**Description:**

Repeating subfield for Access Location Expiration.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AccessLocationExpiration

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8516\_1: Access Location Expiration - Access Location Expiration Date (ACC\_LOC\_EXPDT)**

**Description:**

The subject's assigned expiration date for the access location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	YYYYMMDD	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationExpiration

Cardinality: 0..\*

XML Level 2: dod-ebts:AccessLocationExpirationDate

Cardinality: 0..1

XML Level 3: niem-xsd:date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8516\_2: Access Location Expiration - Authority Approval Status Code (ACC\_LOC\_EXP\_AUTH\_CD)**

**Description:**

The level of the authority and approval status obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	0	1
Character Types	Special Characters	Format	Constraints
AS	N/A	N/A	N/A

Code List: AUTHORITY APPROVAL STATUS CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationExpiration

Cardinality: 0..\*

XML Level 2: dod-ebts:AuthorityApprovalStatusCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8517: Access Location Facility Permission (ACC\_LOC\_PAC\_PERM)**

**Description:**

The subject's level of facility access. The set consists of the facility type, the force protection condition and the authority approval status code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationFacilityPermission

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8517\_0: Access Location Facility Permission - Subfields: Repeating sets of information items (ACC\_LOC\_PAC\_PERM\_0)**

**Description:**

Repeating subfield for Access Location Facility Permission.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AccessLocationFacilityPermission

Cardinality: 0..\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8517\_1: Access Location Facility Permission - Access Location Facility Category Code (ACC\_LOC\_PAC\_PERM\_FAC\_TYP)**

**Description:**

The types of facility at an access location.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	20	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: FACILITY CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationFacilityPermission

Cardinality: 0..\*

XML Level 2: dod-ebts:AccessLocationFacilityCategoryCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8517\_2: Access Location Facility Permission - Force Protection Condition Code  
(ACC\_LOC\_PAC\_PERM\_FP\_CD)**

**Description:**

A DoD-approved system standardizing DoD’s identification of and recommended preventive actions and responses to terrorist threats against U.S. personnel and facilities. The system is the principal means for a commander to apply an operational decision on how to protect against terrorism and facilitates coordination among DoD Components and support for antiterrorism activities.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	7	0	1

Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: FORCE PROTECTION CONDITION CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationFacilityPermission

Cardinality: 0..\*

XML Level 2: dod-ebts:ForceProtectionConditionCode

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8517\_3: Access Location Facility Permission - Authority Approval Status Code  
(ACC\_LOC\_PAC\_PERM\_AUTH\_CD)**

**Description:**

The level of the authority and approval status obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	0	1

Character Types	Special Characters	Format	Constraints
AS	N/A	XX-YYY where XX is the authority and YYY is the status code	N/A

Code List: AUTHORITY APPROVAL STATUS CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessLocationFacilityPermission

Cardinality: 0..\*

XML Level 2: dod-ebts:AuthorityApprovalStatusCode

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8518: Access Application Number (ACC\_APP\_NUM)**

**Description:**

The unique identifier for an application to obtain access to a facility or base.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
16	16	0	1
Character Types	Special Characters	Format	Constraints
AN	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:AccessApplicationNumber/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8548: Biometric Subject Specialty (SUBJ\_SPEC)**

**Description:**

This set of elements describes the specialty and/or skills of the biometric subject, the proficiency level and the validity of the information provided.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectSpecialty

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8548\_0: Biometric Subject Specialty - Subfields: Repeating sets of information items (SUBJ\_SPEC\_0)**

**Description:**

Repeating subfield for Biometric Subject Specialty.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
N/A	N/A	0	*
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectSpecialty

Cardinality: 0..\*

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8548\_1: Biometric Subject Specialty - Biometric Subject Specialty Value (SUBJ\_SPEC\_VAL)**

**Description:**

The specialty and/or skills of the biometric subject. e.g. nuclear explosives, accounting, etc.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	100	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
U	N/A	N/A	N/A

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectSpecialty

Cardinality: 0..\*

XML Level 2: dod-ebts:BiometricSubjectSpecialtyValue

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8548\_2: Biometric Subject Specialty - Biometric Subject Specialty Proficiency (SUBJ\_SPEC\_PRO)**

**Description:**

The field contains the subject proficiency level of the specialty and or skills of the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Code List: PROFICIENCY CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectSpecialty

Cardinality: 0..\*

XML Level 2: dod-ebts:BiometricSubjectSpecialtyProficiencyCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8548\_3: Biometric Subject Specialty - Biometric Subject Specialty Validity (SUBJ\_SPEC\_VALID)**

**Description:**

This information item defines the validity of the specialty and or skills of the biometric subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Code List: VALIDITY CODES

Source: Developed for Base Access capability.

Status: Emerging

XML Level 1: dod-ebts:BiometricSubjectSpecialty

Cardinality: 0..\*

XML Level 2: dod-ebts:BiometricSubjectSpecialtyValidityCode

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8549: Response Maximum Count (RESP\_CNT)**

**Description:**

This field specifies the maximum number of encounters desired to receive in the response. This number shall not exceed the upper limit set by the repository or the service level agreement. The transaction shall document the upper limit allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: Emerging

Status: Emerging

XML Level 1: dod-ebts: ResponseMaximumCount

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8600: Reference System Identifier (ENTITY\_ID\_0)**

**Description:**

Identifier for an entity.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	1	*
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	free text

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 1...\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8600\_0: Reference System Identifier - Subfields: Repeating sets of information items (ENTITY\_ID)**

**Description:**

Repeating subfield for Reference System Identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0...\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8600\_1: Reference System Identifier - Identifier (ENTITY\_NO)**

**Description:**

Identifier assigned by the entity.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0...\*

XML Level 2: dod-ebts:ReferenceSystemID/nc:IdentificationID

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

## Type-2: User-Defined Descriptive Text

### 2.8600\_2: Reference System Identifier - Jurisdiction (ENITITY\_JURIS)

**Description:**

Jurisdiction of the identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0..\*

XML Level 2: nc:JurisdictionIdentification

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

### 2.8600\_3: Reference System Identifier - Category (ENTITY\_CATEGORY)

**Description:**

Category of the identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0..\*

XML Level 2: nc:IdentificationCategory

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8600\_4: Reference System Identifier - Description (ENITITY\_DESC)**

**Description:**

Description of the identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0...\*

XML Level 2: nc:IdentificationCategoryDescriptionText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8600\_5: Reference System Identifier - Effective Date (ENTITY\_EFF)**

**Description:**

Effective date of the identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0...\*

XML Level 2: nc:IdentificationEffectiveDate/nc:Date

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8600\_6: Reference System Identifier - Expiration Date (ENITITY\_EXP)**

**Description:**

Expiration date of the identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0..\*

XML Level 2: nc:IdentificationExpirationDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8600\_7: Reference System Identifier - Source (ENTITY\_SOURCE)**

**Description:**

Entity that generated the identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0..\*

XML Level 2: nc:IdentificationSourceText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8600\_8: Reference System Identifier - Status (ENTITY\_STATUS)**

**Description:**

Current Status of the Identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0...\*

XML Level 2: nc:IdentificationStatus

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8600\_9: Reference System Identifier - Augmentation Point (ENTITY\_AUGMENTATION)**

**Description:**

Description of changes to the Identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:ReferenceSystemIdentifier

Cardinality: 0...\*

XML Level 2: nc:IdentificationAugmentationPoint

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8601: Response Maximum Count (RESP\_CNT)**

**Description:**

This field specifies the maximum number of candidate encounters desired to receive in the response. This number shall not exceed the upper limit set by the repository or the service level agreement (i.e. Top 10 candidates or Single ID).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Sunset

XML Level 1: dod-ebts:ResponseMaximumCount

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: No

**2.8602: Enhanced Status Message (EMSU)**

**Description:**

To facilitate multiple status responses instead of using a single FBU 2.060 Status/Error Message (MSG).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Requested by IC

Status: Emerging

XML Level 1: dod-ebts:EnhancedStatusMessage

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8602\_0: Enhanced Status Message - Subfields: Repeating sets of information items (EMSU\_0)**

**Description:**

Repeating subfield for Enhanced Status Message.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:AssignedIdentification

Cardinality: 0...\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8602\_1: Enhanced Status Message - Comment (EMSU\_1)**

**Description:**

A comment regarding a status.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Requested by IC

Status: Emerging

XML Level 1: dod-ebts:EnhancedStatusMessage

Cardinality: 0...\*

XML Level 2: nc:StatusCommentText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8602\_2: Enhanced Status Message - Date (EMSU\_2)**

**Description:**

A date concept for a date a status is given.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Requested by IC

Status: Emerging

XML Level 1: dod-ebts:EnhancedStatusMessage

Cardinality: 0..\*

XML Level 2: nc:StatusDate/nc:Date

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8602\_3: Enhanced Status Message - Designator (EMSU\_3)**

**Description:**

A data concept for a status or condition of something or someone.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Requested by IC

Status: Emerging

XML Level 1: dod-ebts:EnhancedStatusMessage

Cardinality: 0..\*

XML Level 2: nc:StatusDesignator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8602\_4: Enhanced Status Message - Description (EMSU\_4)**

**Description:**

A description of a status or condition of something or someone.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Requested by IC

Status: Emerging

XML Level 1: dod-ebts:EnhancedStatusMessage

Cardinality: 0..\*

XML Level 2: nc:StatusDescriptionText

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8602\_5: Enhanced Status Message - Issuer Identification (EMSU\_5)**

**Description:**

An identification of a person or organization which assigns a status.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Requested by IC

Status: Emerging

XML Level 1: dod-ebts:EnhancedStatusMessage

Cardinality: 0..\*

XML Level 2: nc:StatusIssuerIdentification/nc:IdentificationID

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8602\_6: Enhanced Status Message - Issuer (EMSU\_6)**

**Description:**

A name, identifier, or other reference of a person or organization which assigns a status.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Requested by IC

Status: Emerging

XML Level 1: dod-ebts:EnhancedStatusMessage

Cardinality: 0...\*

XML Level 2: nc:StatusIssuerText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8603: Primary Language (PRIM\_LANG)**

**Description:**

Primary system of words or symbols used for communication by a subject.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:PrimaryLanguage

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8603\_1: Primary Language - Primary Language Code (PRIM\_LANG\_1)**

**Description:**

A name of a system of words or symbols used for communication of a primary language that utilizes the alpha 3 iso\_639-3 code set.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:PrimaryLanguage

Cardinality: 0..1

XML Level 2: nc:PersonLanguage

Cardinality: 0..1

XML Level 3: nc:LanguageCode

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.8603\_2: Primary Language - Primary Language Description (PRIM\_LANG\_2)**

**Description:**

A capacity of a person for a language with which that person has the strongest familiarity.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:PrimaryLanguage

Cardinality: 0..1

XML Level 2: nc:PersonPrimaryLanguage

Cardinality: 0..1

XML Level 3: nc:LanguageName

Cardinality: 0..1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8603\_3: Primary Language - Primary Language Dialect (PRIM\_LANG\_3)**

**Description:**

Description of the primary language dialect.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:PrimaryLanguage

Cardinality: 0..1

XML Level 2: dod-ebts:PrimaryLanguageDialect

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8603\_4: Primary Language - Primary Language Subject Reads (PRIM\_LANG\_4)**

**Description:**

True if a person is able to read the primary language; false otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:PrimaryLanguage

Cardinality: 0..1

XML Level 2: nc:PersonReadsLanguageIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8603\_5: Primary Language - Primary Language Subject Speaks (PRIM\_LANG\_5)**

**Description:**

True if a person is able to speak the primary language; false otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:PrimaryLanguage

Cardinality: 0..1

XML Level 2: nc:PersonSpeaksLanguageIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8603\_6: Primary Language - Primary Language Subject Writes (PRIM\_LANG\_6)**

**Description:**

True if a person is able to write the primary language; false otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:PrimaryLanguage

Cardinality: 0..1

XML Level 2: nc:PersonWritesLanguageIndicator

Cardinality: 0..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8604: Secondary Language (SECOND\_LANG\_0)**

**Description:**

Description of the Secondary Language.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8604\_0: Secondary Language - Subfields: Repeating sets of information items (SECOND\_LANG)**

**Description:**

Repeating subfield for Secondary Language.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	*
Character Types	Special Characters	Format	Constraints
N/A	N/A	N/A	N/A

Source: EBTS v4.1

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8604\_1: Secondary Language - Secondary Language Code (SECOND\_LANG\_1)**

**Description:**

A name of a system of words or symbols used for communication of a secondary language that utilizes the alpha 3 iso\_639-3 code set.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...\*

XML Level 2: nc:PersonSecondaryLanguage

Cardinality: 0...1

XML Level 3: nc:LanguageCode

Cardinality: 0...1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes

**2.8604\_2: Secondary Language - Secondary Language Description (SECOND\_LANG\_2)**

**Description:**

Description of the secondary language.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...\*

XML Level 2: nc:PersonSecondaryLanguage

Cardinality: 0...1

XML Level 3: nc:LanguageName

Cardinality: 0...1

DoD EBTS 1.2: No

DoD EBTS 3.0: No

DoD EBTS 4.0: Yes

DoD EBTS 4.1: Yes



Type-2: User-Defined Descriptive Text

**2.8604\_3: Secondary Language - Secondary Language Dialect (SECOND\_LANG\_3)**

**Description:**

Description of the secondary language dialect.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	*
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...\*

XML Level 2: dod-ebts:SecondaryLanguageDialect

Cardinality: 0...\*

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8604\_4: Secondary Language - Secondary Language Subject Reads (SECOND\_LANG\_4)**

**Description:**

True if a person is able to read the secondary language; false otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...\*

XML Level 2: nc:PersonReadsLanguageIndicator

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8604\_5: Secondary Language - Secondary Language Subject Speaks (SECOND\_LANG\_5)**

**Description:**

True if a person is able to speak the secondary language; false otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...\*

XML Level 2: nc:PersonSpeaksLanguageIndicator

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8604\_6: Secondary Language - Secondary Language Subject Writes (SECOND\_LANG\_6)**

**Description:**

True if a person is able to write the secondary language; false otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SecondaryLanguage

Cardinality: 0...\*

XML Level 2: nc:PersonWritesLanguageIndicator

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8605: Speaker Identification Engine Response (ENG\_RESP)**

**Description:**

Information set returned with the Speaker Candidate Results (SCR) response TOT as a result of the SID - Speaker Identification request TOT. The information set contains results information regarding matches against the stored voice engine model.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
N/A	N/A	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SpeakerIdentificationEngineResponse

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8605\_1: Speaker Identification Engine Response - Voice Engine Software Version (ENG\_RESP\_1)**

**Description:**

Software version of the voice model engine generating the model and running the voice match comparison algorithm.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SpeakerIdentificationEngineResponse

Cardinality: 0...\*

XML Level 2: dod-ebts:softwareVersionText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8605\_2: Speaker Identification Engine Response - Voice Engine Software Name (ENG\_RESP\_2)**

**Description:**

Name of the software voice model engine generating the model and running the voice match comparison algorithm.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SpeakerIdentificationEngineResponse

Cardinality: 0...\*

XML Level 2: dod-ebts:SoftwareName

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8605\_3: Speaker Identification Engine Response - Voice Engine Vendor (ENG\_RESP\_3)**

**Description:**

Text that specifies the software code vendor name.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SpeakerIdentificationEngineResponse

Cardinality: 0...\*

XML Level 2: dod-ebts:SoftwareVendorNameText

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8605\_4: Speaker Identification Engine Response - Detected Speaker Number (ENG\_RESP\_4)**

**Description:**

Identifying number of the speaker assigned by the voice model engine.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SpeakerIdentificationEngineResponse

Cardinality: 0...\*

XML Level 2: dod-ebts:DetectedSpeakerNumber

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

**2.8605\_5: Speaker Identification Engine Response - Voice Engine Rank (ENG\_RESP\_5)**

**Description:**

Rank Score assigned to the voice file submitted as part of the Speaker Identification (SID) TOT.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
N	N/A	N/A	N/A

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SpeakerIdentificationEngineResponse

Cardinality: 0...\*

XML Level 2: dod-ebts:EngineRank/nc:MeasureDecimalValue

Cardinality: 0...1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: Yes      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8605\_6: Speaker Identification Engine Response - Match Level (ENG\_RESP\_6)**

**Description:**

Code indicating the voice engines level of confidence regarding the submission of the voice file in the Speaker Identification (SID) TOT comparison to the stored voice model.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	N/A	N/A	N/A

Code List: SPEAKER MATCH LEVEL

Source: Addition for Voice Type 11

Status: Emerging

XML Level 1: dod-ebts:SpeakerIdentificationEngineResponse

Cardinality: 0...\*

XML Level 2: dod-ebts:MatchLevel

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	Yes	DoD EBTS 4.1:	Yes
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**2.8606: DNA Identifier (DNA)**

**Description:**

This optional field contains a unique identifier used to store DNA samples in a reference system.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	767	0	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Addition for DNA Reference ID

Status: New-Active

XML Level 1: dod-ebts:DNAIdentifier

Cardinality: 0...1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	No	DoD EBTS 4.1:	Yes
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Type-2: User-Defined Descriptive Text

**2.8606\_1: DNA Identifier - DNA System Name (DNA\_SYS)**

**Description:**

This field identifies the name of the system that the DNA is being stored in. (ie CODIS, USACIL, AFDIL, etc.)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Addition for DNA Reference ID

Status: New-Active

XML Level 1: dod-ebts:DNAIdentifier

Cardinality: 0..1

XML Level 2: dod-ebts:DNASystemName/nc:TextType

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

**2.8606\_2: DNA Identifier - DNA Sample Identifier (DNA\_ID)**

**Description:**

This field contains the DNA identifier used in the reference system.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	512	1	1
Character Types	Special Characters	Format	Constraints
ANS	N/A	N/A	N/A

Source: Addition for DNA Reference ID

Status: New-Active

XML Level 1: dod-ebts:DNAIdentifier

Cardinality: 0..1

XML Level 2: dod-ebts:DNASampleIdentifier/nc:TextType

Cardinality: 1..1

DoD EBTS 1.2: No      DoD EBTS 3.0: No      DoD EBTS 4.0: No      DoD EBTS 4.1: Yes

Type-2: User-Defined Descriptive Text

**2.8607: Eye Contact Lens Indicator (EYE\_CON)**

**Description:**

This field indicates if the biometric enrollee is wearing contact lenses during capture. It is recommended the enrollee removes color contact lenses prior to capture.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A		N/A

Code List: Y/N

Source: EBTSv4.1

Status: New-Active

XML Level 1: dod-ebts:EyeContactLensesIndicator

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	No	DoD EBTS 4.1:	Yes
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**2.8608: Eye Glasses Indicator (EYE\_GLASS)**

**Description:**

This field indicates if the biometric enrollee is wearing glasses during capture. ANSI/NIST-ITL recommends the removal of glasses during biometric capture.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	N/A		N/A

Code List: Y/N

Source: EBTSv4.1

Status: New-Active

XML Level 1: dod-ebts:EyeGlassesIndicator

Cardinality: 0..1

DoD EBTS 1.2:	No	DoD EBTS 3.0:	No	DoD EBTS 4.0:	No	DoD EBTS 4.1:	Yes
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Type-9 Minutiae Data Record (Common)

**9.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageInformationRecord

NIEM Element: itl:Transaction

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	N or NN	0 ≤ IDC ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Common)

**9.003: Impression Type (IMP)**

**Description:**

This mandatory field shall indicate the manner by which the friction ridge print was obtained. In 2013 and earlier versions of this standard, this field indicated both the impression types and capture technology: now this field retains the impression types but capture technology is indicated in Friction ridge capture technology (FCT), as described in section 7.7.4.5 of the ANSI/NIST-ITL 1-2011 Update: 2015. Values from previous versions of this standard for impression types are still allowed for use but are considered to be 'legacy'. For example, the legacy value 21 indicated a rolled fingerprint using an optical livescan; now this would be indicated using IMP=1 (rolled contact) and FCT=3 (optical bright field TIR livescan. For a full list of those legacy values, see Table 7 of the 2013 Update of the standard. Note that the legacy values ranged from 0 to 39. This updated table includes new codes for exemplar prints captured from moving subjects (codes 41 and 42).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	IMP = 0, 1, 8, 24, 25, 41, 42, 28, 29, 4

Code List: FRICTION RIDGE IMPRESSION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord

NIEM Element: itl:FrictionRidgeImpressionCaptureCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Common)

**9.004: Minutia Format (FMT)**

**Description:**

This mandatory field is retained only for backward compatibility. It was a mandatory field in previous versions of the standard. This field shall always have a value "U", unless including legacy records 9.005 through 9.012 (described in ANSI/NIST-ITL 1-2007 and ANSI/NIST-ITL 2-2008), when this field shall contain "S".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	FMT = U or S. S only if including legacy fields 9.005-9.012 from old record sources (ANSI/NIST-ITL 1-2007 or 2008 compliant records)

Code List: MINUTIA FORMAT CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: dod-ebts:MinutiaeFormatNISTStandardIndicator

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.126: M1 CBEFF Information (CBI)**

**Description:**

\*Fields 9.126 - 9.150 are based on the INCITS 278 standard. The condition codes in this table apply if the block of features is present. The entire block may be absent from a transaction. Thus, the conditionality of each information item only applies if this block of fields is present. This field is mandatory if the INCITS 378 feature set is contained in the transaction. Otherwise, it shall not occur. It shall contain three information items CFO, CFT, and CPI, when present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 378

Status: Active

XML Parent: N/A

NIEM Element: CBEFF Removed from EBTS

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.126\_1: M1 CBEFF Information - CBEFF Format Owner (CFO)**

**Description:**

The information item shall contain the value "27". This is the identification of the CBEFF Format Owner assigned by the International Biometric Industry Association (IBIA) to INCITS Technical Committee M1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	NN	CFO = 27

Code List: CBEFF FORMAT OWNER CODES

Source: INCITS 378

Status: Active

XML Parent: N/A

NIEM Element: CBEFF Removed from EBTS

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.126\_2: M1 CBEFF Information - CBEFF Format Type (CFT)**

**Description:**

The second information item (CBEFF format type / CFT) is assigned a value of "513" (following INCITS 378-2004) if this record contains Field 9.137: FMD without Field 9.138: RCI, Field 9.139: CIN or Field 9.140: DIN. A value of "514" (following INCITS 378-2004) indicates the presence of one of the previously indicated fields. If INCITS 378-2009 is followed, a value of "515" is entered and does not indicate the specific presence or absence of these fields.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	NNN	CFT = 513 or 514 for INCITS 378-2004 and 515 for INCITS 378-2009

Code List: CBEFF FORMAT TYPE CODES

Source: INCITS 378

Status: Active

XML Parent: N/A

NIEM Element: CBEFF Removed from EBTS

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.126\_3: M1 CBEFF Information - CBEFF Product Identifier (CPI)**

**Description:**

This information item identifies the "owner" of the encoding equipment. The vendor establishes this value. It can be obtained from the IBIA website (www.ibia.org) if it is posted. If it is not posted, then use the value "0000"

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	8	1	1
Character Types	Special Characters	Format	Constraints
H	None	HHHH	None

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:CBEFFProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.127: M1 Capture Equipment Identification (CEI)**

**Description:**

This field shall contain two information items: the Appendix F Status (AFS) and the Capture Equipment ID (CID).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 378

Status: Active

XML Parent: biom:ImageCaptureDetail

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.127\_1: M1 Capture Equipment Identification - Appendix F Status (AFS)**

**Description:**

This field shall contain "APPF" if the equipment used originally to acquire the image was certified to conform with Appendix F specifications. (The list of certified products at <http://fbibiospecs.org>). If the equipment did not conform it will contain the value of "NONE".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
A	None	AAAA	AFS = APPF or NONE

Code List: BIOMETRIC CAPTURE DEVICE CONFORMANCE CODES

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:DeviceCertificationCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.127\_2: M1 Capture Equipment Identification - Capture Equipment Identifier (CID)**

**Description:**

The information item shall contain the vendor-assigned product number/identifier (up to 30 characters) of the capture equipment. A value of "0" indicates that the capture equipment ID is unreported.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	30	1	1
Character Types	Special Characters	Format	Constraints
U	Unicode characters	n/a	None (0 = unreported)

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:DeviceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.128: M1 Horizontal Line Length (HLL)**

**Description:**

HLL defines the number of pixels contained on a single horizontal line of the image. The maximum horizontal size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. For Traditional encoding, the record size is limited by the maximum allowed value for Field xx.001 and the total image size in bytes must be able to be accommodated in that field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	NN-NNNNN	10 ≤ HLL ≤ 99,999; positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:HorizontalLineLengthPixelQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.129: M1 Vertical Line Length (VLL)**

**Description:**

VLL defines the number of pixels contained in a single vertical line in the image. The maximum vertical size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	NN-NNNNN	10 ≤ VLL ≤ 99,999; positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:VerticalLineLengthPixelQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.130: Scale Units (SLC)**

**Description:**

The image sampling frequency (pixel density). A value of “1” shall indicate pixels per inch. A value of “2” shall indicate pixels per centimeter. A value of “0” in this field indicates that no scale is provided, and the quotient of THPS/TVPS shall provide the pixel aspect ratio. For contact exemplar friction ridge images, a value of 1 or 2 shall be specified. For a value of 1 or 2, the transmitted horizontal and vertical scales shall be the same. A value of 1 or 2 shall also be specified for latent friction ridge prints if the lifted latent print is transmitted directly from a scanner. If the latent print is contained in a photograph, a value of 1 or 2 shall be entered only if the image of the latent was captured with a scale measurement visible in the image and the pixels across an inch or centimeter can be calculated – given the known characteristics of the camera and its distance from the latent print. A value of 0 for a latent print indicates that the true ppi value of the image is not known. For non-contact images of body parts, SLC shall be set to 0 unless the object being imaged is a fixed distance from the capture device and the ppi or ppm values for the capture device are accurately known at that fixed distance. (An example might be an iris capture device with a very small effective capture zone).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	N	SLC = 0, 1 or 2

Code List: SCALE UNIT CODES

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:ImageScaleUnitsCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.131: M1 Transmitted Horizontal Pixel Scale (THPS)**

**Description:**

This is the integer pixel density used in the horizontal direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this field shall contain the horizontal component of the pixel aspect ratio, up to 5 integer digits. For example, if the SLC value = 1, then the value of THPS could be '1000' for a 1000 ppi sensor. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used. For example with the values 1.3, 1.5 and 1.8 the resulting THPS values would be 1, 2, and 2. Any value greater than x.0 and less than x.5 would be rounded down to x, regardless of the number of significant digits to the right of the decimal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:ImageHorizontalPixelDensityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.132: M1 Transmitted Vertical Pixel Scale (TVPS)**

**Description:**

This is the integer pixel density used in the vertical direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this field shall contain the vertical component of the pixel aspect ratio, up to 5 integer digits. If SLC is 1 or 2, then TVPS shall equal THPS. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding up at .5 should be used. For example with the values 1.3, 1.5 and 1.8 the resulting TVPS values would be 1, 2, and 2.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:ImageVerticalPixelDensityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.133: M1 Finger View (FVW)**

**Description:**

This mandatory field contains the view number of the finger associated with this record's data. The view number begins with "0" and increments by one to "15". Finger view differentiates multiple images of the same finger that are included in the transaction to be taken consecutively to develop an "average" template for that particular set of finger minutiae for enrollment applications.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ FVW ≤ 15 ; non-negative integer

Code List: FINGERPRINT FINGER VIEW CODES

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:FingerViewNumeric

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.134: M1 Friction Ridge Generalized Position (FGP)**

**Description:**

This is a mandatory field. See Section 7.7.4.2 of the ANSI/NIST-ITL 1-2011 Update: 2015 for details. Valid codes for this field are between 1 and 10, taken from Look Up Codes to indicate the finger position. (Note that codes 16 and 17 are not covered in INCITS 378). The 2007 version restricted this to fingerprint codes. The 2008 version also allowed palm codes, but this version of the ANSI/NIST-ITL standard does not in order to maintain consistency with INCITS 378.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FGP ≤ 10 ; non-negative integer

Code List: FRICTION RIDGE GENERALIZED POSITION

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.135: M1 Friction Ridge Quality Data (FQD)**

**Description:**

This mandatory field shall contain the quality of the overall finger minutiae data. There may be a subfield for each algorithm and predictive performance measure. Each subfield shall contain the first information item (quality value / QVU) described in Section 7.7.7 of the ANSI/NIST-ITL 1-2011 Update: 2015. The second two information items are optional for this field. (algorithm vendor identification / QAV and algorithm product identification / QAP). The 2004 version of INCITS 378 had only 1 byte for quality with no second and third information items. The 2009 version of INCITS 378 had all three information items and all three are mandatory in that standard. The 2007 and 2008 versions of ANSI/NIST-ITL mandated the presence of all three information items. However, this version of ANSI/NIST ITL allows the second and third items to be optional, in order to accommodate those users following the 2004 version of INCITS 378.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:MinutiaeQuality

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.135\_0: M1 Friction Ridge Quality Data - Subfields: Repeating sets of information items (FQD\_0)**

**Description:**

This mandatory field shall contain the quality of the overall finger minutiae data. There may be a subfield for each algorithm and predictive performance measure. Each subfield shall contain the first information item (quality value / QVU) described in Section 7.7.7 of the ANSI/NIST-ITL 1-2011 Update: 2015. The second two information items are optional for this field. (algorithm vendor identification / QAV and algorithm product identification / QAP). The 2004 version of INCITS 378 had only 1 byte for quality with no second and third information items. The 2009 version of INCITS 378 had all three information items and all three are mandatory in that standard. The 2007 and 2008 versions of ANSI/NIST-ITL mandated the presence of all three information items. However, this version of ANSI/NIST ITL allows the second and third items to be optional, in order to accommodate those users following the 2004 version of INCITS 378.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 379

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:MinutiaeQuality

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.135\_1: M1 Friction Ridge Quality Data - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	N-NNN	0 ≤ QVU ≤ 100 or QVU = 254 or QVU = 255; integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:MinutiaeQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.135\_2: M1 Friction Ridge Quality Data - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	0	1
Character Types	Special Characters	Format	Constraints
H	D	n/a	HHHH

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:MinutiaeQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

9.135\_3: M1 Friction Ridge Quality Data - Algorithm Product Identification (QAP)

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, and indicates which of the vendor's algorithms was used in the calculation of the quality score. Description may be registered with the IBA, but registration is not required. This field contains the ASCII representation of the integer product code and should be within the range of 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	N-NNNNN	1 ≤ QAP ≤ 65,535

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:MinutiaeQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

9.136: M1 Number of Minutiae (NOM)

**Description:**

This mandatory field shall contain a count of the number of minutiae recorded in this block.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	N-NNNN	1 ≤ NOM ≤ 9,999; positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:MinutiaeQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.137: M1 Finger Minutiae Data (FMD)**

**Description:**

The total number of minutiae information items must agree with the count found in field 9.136 (NOM).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	Total Number of Minutae Data fields (with corresponding information items) must be equal to the value in 9.136 - NOM - M1 Number of Minutae

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:INCITSMinutia

XML Min/Max: 1 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.137\_0: M1 Finger Minutiae Data - Subfields: Repeating sets of information items (FMD-0)**

**Description:**

The total number of minutiae information items must agree with the count found in field 9.136 (NOM).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	NOM	NOM
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	Total Number of Minutae Data fields (with corresponding information items) must be equal to the value in 9.136 - NOM - M1 Number of Minutae

Source: INCITS 379

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:INCITSMinutia

XML Min/Max: 1 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.137\_1: M1 Finger Minutiae Data - Minutia Index Number (MAN)**

**Description:**

This information item is the minutiae index number, which shall be initialized to “1” and incremented by “1” for each additional minutia in the fingerprint.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ MAN ≤ NOM; positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:INCITSMinutia

NIEM Element: biom:MinutiaID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.137\_2: M1 Finger Minutiae Data - X Coordinate (MXC)**

**Description:**

This information item is the 'x' coordinate of the minutiae in pixel units.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ MXC ≤ HLL; positive integer

Source: INCITS 378

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:INCITSMinutia/biom:INCITSMinutiaLocation/biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.137\_3: M1 Finger Minutiae Data - Y Coordinate (MYC)**

**Description:**

This information item is the 'y' coordinates of the minutiae in pixel units.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	$1 \leq MYC \leq VLL$ ; positive integer

Source: INCITS 378

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:INCITSMinutia/biom:INCITSMinutiaLocation/biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.137\_4: M1 Finger Minutiae Data - Minutiae Angle (MAV)**

**Description:**

This information item is the minutiae angle recorded in units of two degrees. This value shall be nonnegative between 0 and 179, inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	$0 \leq MAV \leq 179$ ; positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:INCITSMinutia/biom:INCITSMinutiaLocation

NIEM Element: biom:SmallThetaAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.137\_5: M1 Finger Minutiae Data - Minutiae Type (M1M)**

**Description:**

The information item has a value of "0" to represent a minutia of type "OTHER", a value of "1" for a ridge ending and a value of "2" for a ridge bifurcation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	MTY = 0, 1 or 2 ; non-negative integer

Code List: FINGERPRINT INCITS MINUTIAE CODES

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:INCITSMinutia

NIEM Element: biom:INCITSMinutiaCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.137\_6: M1 Finger Minutiae Data - Quality of Minutia (QOM)**

**Description:**

This information item represents the quality of each minutia. This value shall range from 1 as a minimum to 100 as a maximum. A value of "0" indicates that no quality value is available. Note that this is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ QOM ≤ 100; integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:INCITSMinutia

NIEM Element: biom:MinutiaQualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.138: M1 Ridge Count Information (RCI)**

**Description:**

This optional field shall consist of subfields of three information items. It can only appear if a value of '514' or '515' is entered in CFT of Field 9.126: M1 CBEFF information / CBI.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:MinutiaeRidgeCountDetail

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.138\_0: M1 Ridge Count Information - Subfields: Repeating sets of information items (RCI\_0)**

**Description:**

This optional field shall consist of subfields of three information items. It can only appear if a value of '514' or '515' is entered in CFT of Field 9.126: M1 CBEFF information / CBI.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 379

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:MinutiaeRidgeCountDetail

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.138\_1a: M1 Ridge Count Information - Ridge Count Extraction Method (REM)**

**Description:**

The first information item shall indicate the ridge count extraction method. A “0” indicates that no assumption shall be made about the method used to extract ridge counts, nor their order in the record. A “1” indicates that for each center minutiae, ridge count data was extracted to the nearest neighboring minutiae in four quadrants, and ridge counts for each center minutia are listed together. A “2” indicates that for each center minutiae, ridge count data was extracted to the nearest neighboring minutiae in eight octants, and ridge counts for each center minutia are listed together.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	REM = 0, 1 or 2

Code List: FINGERPRINT RIDGE COUNT EXTRACTION METHOD CODES

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/ biom:MinutiaeRidgeCountDetail

NIEM Element: biom:INCITSRidgeCountAlgorithmCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.138\_1b: M1 Ridge Count Information - Center Minutia Index Number (CMI)**

**Description:**

The first information item of subsequent subfields of the Ridge Count Information field is a positive integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ CMI ≤ NOM; positive integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:MinutiaeRidgeCountDetail/biom:MinutiaeRidgeCountItem

NIEM Element: biom:MinutiaID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.138\_2a: M1 Ridge Count Information - Filler 1 (F1)**

**Description:**

The remaining two information items (filler 1 / F11 and filler 2 / F12) of this first repeating subfield shall each contain "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	F11 = 0

Source: INCITS 378

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.138\_2b: M1 Ridge Count Information - Neighboring Minutia Index Number (NMN)**

**Description:**

The second information item of subsequent subfield of the Ridge Count Information field is a positive integer. It shall not be equal to CMI.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ NMN ≤ NOM; positive integer; Shall not be equal to CMI

Source: INCITS 378

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:MinutiaeRidgeCountDetail/biom:MinutiaeRidgeCountItem

NIEM Element: biom:MinutiaReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.138\_3a: M1 Ridge Count Information - Filler 2 (FI2)**

**Description:**

The remaining two information items (filler 1 / FI1 and filler 2 / FI2) of this first repeating subfield shall each contain "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	FI2 = 0

Source: INCITS 378

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.138\_3b: M1 Ridge Count Information - Number of Ridges Crossed (NRC)**

**Description:**

The third information item of subsequent subfield of the Ridge Count Information field is a positive integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ NRC ≤ 99; non-negative integer

Source: INCITS 378

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:MinutiaeRidgeCountDetail/biom:MinutiaeRidgeCountItem

NIEM Element: biom:RidgeCountValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.139: M1 Core Information (CIN)**

**Description:**

This optional field shall consist of one subfield for each core present in the original image. It can only appear if a value of '514' or '515' is entered in CFT (Field 9.126\_2). Each subfield consists of three information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:FingerprintPatternCoreLocation

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.139\_0: M1 Core Information - Subfields: Repeating sets of information items (CIN\_0)**

**Description:**

This optional field shall consist of one subfield for each core present in the original image. It can only appear if a value of '514' or '515' is entered in CFT (Field 9.126\_2). Each subfield consists of three information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 379

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:FingerprintPatternCoreLocation

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.139\_1: M1 Core Information - X Coordinate (XCC)**

**Description:**

The first item ('x' coordinate / XCC) is an integer in pixel units.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ XCC ≤ HLL ; non-negative integer

Source: INCITS 378

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternCoreLocation/biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.139\_2: M1 Core Information - Y Coordinate (YCC)**

**Description:**

The second item ('y' coordinate / YCC) is an integer in pixel units.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ YCC ≤ VLL; non-negative integer

Source: INCITS 378

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternCoreLocation/biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.139\_3: M1 Core Information - Angle of the Core (ANGC)**

**Description:**

The third information item (angle of the core / ANGC) is recorded in units of two degrees. The value shall be between 0 and 179, inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ ANGC ≤ 179; non-negative integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternCoreLocation

NIEM Element: biom:SmallThetaAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.140: M1 Delta Information (DIN)**

**Description:**

This optional field shall consist of one subfield for each delta present in the original image. It can only appear if a value of '514' or '515 is entered in CFT (Field 9.126). Each repeating subfield consists of three information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:FingerprintPatternDeltaLocation

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.140\_0: M1 Delta Information - Subfields: Repeating sets of information items (DIN\_0)**

**Description:**

This optional field shall consist of one subfield for each delta present in the original image. It can only appear if a value of '514' or '515 is entered in CFT (Field 9.126). Each repeating subfield consists of three information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 379

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae

NIEM Element: biom:FingerprintPatternDeltaLocation

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.140\_1: M1 Delta Information - X Coordinate (XCD)**

**Description:**

The first item ('x' coordinate / XCD) is an integer in pixel units.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ XCD ≤ HLL; non-negative integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternDeltaLocation/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.140\_2: M1 Delta Information - Y Coordinate (YCD)**

**Description:**

The second item ('y' coordinate / YCD) is an integer in pixel units.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ YCD ≤ VLL; non-negative integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternDeltaLocation/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.140\_3: M1 Delta Information - First Angle of the Delta (ANG1)**

**Description:**

The third information item ( first angle of the delta / ANG1) is recorded in units of two degrees. The value shall be between 0 and 179, inclusive. This is the angle closest to 90 degrees (i.e. pointing upwards).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ ANG1 ≤ 179; non-negative integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternDeltaLocation

NIEM Element: biom:SmallThetaAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.141: M1 Additional Delta Angles (ADA)**

**Description:**

This optional field shall only appear if DIN (Field 9.140) is included in this record. This field was added to handle the two additional angle specifications of INCITS 378 while maintaining backward compatibility with the 2007 version of this standard (Traditional encoding). The subfields shall describe the same deltas in the same order as the subfields of Field 9.140: M1 delta information / DIN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 378

Status: Active

XML Parent: biom:INCITSMinutiae

NIEM Element: biom:FingerprintPatternDeltaLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.141\_0: M1 Additional Delta Angles - Subfields: Repeating sets of information items (ADA\_0)**

**Description:**

This optional field shall only appear if DIN (Field 9.140) is included in this record. This field was added to handle the two additional angle specifications of INCITS 378 while maintaining backward compatibility with the 2007 version of this standard (Traditional encoding). The subfields shall describe the same deltas in the same order as the subfields of Field 9.140: M1 delta information / DIN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: INCITS 379

Status: Active

XML Parent: biom:INCITSMinutiae

NIEM Element: biom:FingerprintPatternDeltaLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (INCITS M1-378 Features)

**9.141\_1: M1 Additional Delta Angles - Second Angle of the Delta (ANG2)**

**Description:**

The first information item (second angle of the delta /ANG2) is the next angle encoded in order of appearance when moving counterclockwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	3
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ ANG2 ≤ 179; non-negative integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternDeltaLocation

NIEM Element: biom:SmallThetaAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.141\_2: M1 Additional Delta Angles - Third Angle of the Delta (ANG3)**

**Description:**

The second information item (third angle of the delta / ANG3) is the last angle encoded in order of appearance when moving counterclockwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	3
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ ANG3 ≤ 179; non-negative integer

Source: INCITS 378

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:INCITSMinutiae/biom:FingerprintPatternDeltaLocation

NIEM Element: biom:SmallThetaAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.300: EFS Region of Interest (ROI)**

**Description:**

The condition codes in the Extended Feature Set table apply if the block of features is present. The entire block may be absent from a transaction. Thus, mandatory, indicates 'mandatory if this block of fields is present'. The Region of Interest is defined as a rectangle and/or polygon that bounds the area of the original image containing a single friction ridge impression, and separates it from the background and any other friction ridge data present in the image. All EFS features are in relation to the Region of Interest, not to the original image; all coordinates are relative to the top left corner of the ROI. All EFS features are in relation to the Region of Interest, not to the original image; all coordinates are relative to the top left corner of the ROI. With the exception of Field 9.323: EFS center point of reference / CPR, the X and Y values for an EFS feature may not equal or exceed the width and height of the ROI. The X and Y values for CPR are the only EFS values that may be negative, or greater than the ROI width or height; however, the center point of reference must be within the bounds of the overall image itself. The ROI may be identical to the dimensions of the image. When the ROI is a polygon, the ROI rectangle is simply a bounding box around that polygon: the ROI offset is defined as the minimum of the X and Y coordinates of all ROI vertices, and the ROI width and height are defined as the range (maximum – minimum) of the X and Y coordinates of all ROI vertices. It is permissible for the ROI rectangle to be expanded slightly around the ROI polygon so that its dimensions or offset are evenly divisible by 4 or 8, as long as this does not exceed the bounds of the image itself. This mandatory field defines a rectangle (and an optional polygon) that bounds the region of the image that contains the friction ridge print of interest and separates it from the background and any other fingerprints present in the image. Width and height are mandatory. The other items are optional.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
n/a	n/a	1	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageRegionOfInterest

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.300\_1: Region of Interest - ROI Width (EWI)**

**Description:**

The first information item (width / EWI) is the integer width of the region of interest in units of 10 micrometers (0.01 mm)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ EWI ≤ 50000 ; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageRegionOfInterest

NIEM Element: biom:ImageSegmentWidthMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.300\_2: Region of Interest - ROI Height (EHI)**

**Description:**

The second information item (height / EHI) is the height of the region of interest in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ EHI ≤ 50000 ; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageRegionOfInterest

NIEM Element: biom:ImageSegmentHeightMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.300\_3: Region of Interest - ROI Horizontal Offset (EHO)**

**Description:**

The third information item (horizontal offset / EHO) is the horizontal distance in units of 10 micrometers from the left edge of the original image to the left edge of the region of interest. This information item defaults to a value of zero if absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ EHO ≤ 50000 ; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageRegionOfInterest

NIEM Element: biom:ImageSegmentHorizontalOffsetMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.300\_4: Region of Interest - ROI Vertical Offset (EVO)**

**Description:**

The fourth information item (vertical offset / EVO) is the vertical distance in units of 10 micrometers from the top edge of the original image to the top edge of the region of interest. This information item defaults to a value of zero if absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ EVO ≤ 50000 ; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageRegionOfInterest

NIEM Element: biom:ImageSegmentVerticalOffsetMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.300\_5: Region of Interest - ROI Polygon (ROP)**

**Description:**

The fifth information item (ROI Polygon / ROP) contains a polygon (closed path) that further defines the friction ridge area under consideration within the ROI. The format of polygons is described in Section 7.7.12 of the ANSI/NIST-ITL 1-2011 Update: 2015. The vertices of the polygon are relative to the ROI. In Traditional encoding, the two special characters allowed are hyphen and comma. These special characters are not used in XML Encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	99
Character Types	Special Characters	Format	Constraints
NS	T: Hyphen and Comma; X = None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageRegionOfInterest/biom:ImageSegment Polygon

NIEM Element: biom:PositionPolygonVertex

XML Min/Max: 3 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.301: EFS Orientation (ORT)**

**Description:**

This optional field allows the orientation (deviation from upright) and its uncertainty to be specified. If this field is omitted, the direction shall default to 0 (upright) and uncertainty shall default to 15, indicating that the image is rotated 0±15°. If orientation cannot be determined, the uncertainty value shall be set to 180.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FingerprintImageFingerprintOrientation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.301\_1: EFS Orientation - Direction (EOD)**

**Description:**

This information item contains the deviation of the region of interest from upright (fingertip up) in integer degrees. Positive angles are counterclockwise, negative angles are clockwise. A value of "0" indicates an upright direction. Valid values range from "-179" through "180". The allowed special character is the negative sign.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign	n/a	-179 ≤ EOD ≤ 180 ; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FingerprintImageFingerprintOrientation

NIEM Element: biom:OrientationAngleValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.301\_2: EFS Orientation - Uncertainty (EUC)**

**Description:**

This information item contains the uncertainty of the orientation direction, in non-negative integer degrees; the resulting orientation is Direction ± Uncertainty°. Valid values range from "0" to "180".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ EUC ≤ 180 ; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FingerprintImageFingerprintOrientation

NIEM Element: biom:OrientationAngleUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.302: EFS Finger, Palm, Plantar Position (FPP)**

**Description:**

This mandatory field shall contain one or more of the possible physical positions that correspond to the region of interest. For example, a region of interest that includes a finger’s medial and proximal segment can note those as multiple data entries, with polygons to indicate the locations. For more information about this field, see Annex F F.6.1.3 of the ANSI/NIST-ITL 1-2011 Update: 2015. This field may contain multiple subfields to designate different friction ridge generalized positions and/or finger segments; polygons are required in this case to delineate the locations of the positions. Polygons may overlap if appropriate.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFrictionRidgeLocation

XML Min/Max: 1 / 20

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.302\_0: EFS Finger, Palm, Plantar Position - Subfields: Repeating sets of information items (FPP\_0)**

**Description:**

This mandatory field shall contain one or more of the possible physical positions that correspond to the region of interest. For example, a region of interest that includes a finger’s medial and proximal segment can note those as multiple data entries, with polygons to indicate the locations. For more information about this field, see Annex F F.6.1.3 of the ANSI/NIST-ITL 1-2011 Update: 2015. This field may contain multiple subfields to designate different friction ridge generalized positions and/or finger segments; polygons are required in this case to delineate the locations of the positions. Polygons may overlap if appropriate.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	20
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFrictionRidgeLocation

XML Min/Max: 1 / 20

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.302\_1: EFS Finger, Palm, Plantar Position - Friction Ridge Generalized Position (FGP)**

**Description:**

The first information item (friction ridge generalized position / FGP) which contains the code number corresponding to the known or most probable position shall be taken and entered as a one- or two-character value. The codes are listed in Table 9 of the ANSI/NIST-ITL 1-2011 Update: 2015, See Section 7.7.4.2. The valid codes for FGP in this field are limited to 0 through 10 (inclusive), 16 through 18 (inclusive), 20 through 38 (inclusive) and 81 through 86 (inclusive).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ 10, 16 ≤ 18, 20 ≤ 38, 81 ≤ 86

Code List: FRICTION RIDGE GENERALIZED POSITION

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFrictionRidgeLocation

NIEM Element: biom:LatentFrictionRidgePositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.302\_2: EFS Finger, Palm, Plantar Position - Image Segment (FSM)**

**Description:**

This information item is optional and only applies to fingerprints in which all or part of the medial or proximal segments (lower joints) are present in the image, in which case the 3-character code from Table 10 of the ANSI/NIST-ITL 1-2011 Update: 2015 is used to indicate the finger segment position (DST, PRX, or MED). DST is Distal; MED is Medial; and PRX is Proximal. UNK for "Unknown" may also be specified. This information item defaults to DST if the friction ridge generalized position / FGP indicates a fingerprint and the Finger Segment is not specified; in which case, the impression shall be regarded as including solely the distal segment with no substantive portions of the medial or proximal segments. This information item shall be omitted if the friction ridge generalized position / FGP indicates a palm or plantar.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	FSM = DST, PRX, MED or UNK

Code List: PRINT POSITION DESCRIPTORS

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFrictionRidgeLocation

NIEM Element: biom:SegmentLocationCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.302\_3: EFS Finger, Palm, Plantar Position - Off-Center Fingerprint (OCF)**

**Description:**

This information item is optional and only applies to fingerprints in which the impression does not contain the central area of the fingerprint (i.e., the core or a center point of reference), in which case the 1-character codes are used to indicate the off-center position of the fingerprint image. This information item shall be omitted if Field 9.302\_1, FGP - Friction Ridge Generalized Position, indicates palm or plantar.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	OCF = T, R or L

Code List: OFF-CENTER FINGERPRINT CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFrictionRidgeLocation

NIEM Element: biom:FingerprintOffCenterCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.302\_4: EFS Finger, Palm, Plantar Position - Segment Polygon (SGP)**

**Description:**

This information item is optional and represents a closed path polygon that delineates the area that corresponds to the specified position/segment. In Traditional encoding, the two special characters allowed are hyphen and comma. These special characters are not used in XML Encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	99
Character Types	Special Characters	Format	Constraints
NS	T: Hyphen and Comma; X = None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFrictionRidgeLocation/biom:ImageSegmentPolygon

NIEM Element: biom:PositionPolygonVertex

XML Min/Max: 3 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.303: EFS Finger Set Profile (FSP)**

**Description:**

This optional numeric field is used to indicate an EFS Profile, which defines the specific set of EFS fields incorporated in a specific transaction. Profiles can be incorporated by reference into the definition of transactions: this decoupling of feature sets from transactions enables different transactions to share a common feature set, aiding in interoperability. If a given ANSI/NIST-ITL transaction is conformant with two or more profiles, the code for each profile is entered in a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:ExtendedFeatureSetProfileCode

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.303\_0: EFS Finger Set Profile - Subfields: Repeating sets of information items (FSP\_0)**

**Description:**

This optional numeric field is used to indicate an EFS Profile, which defines the specific set of EFS fields incorporated in a specific transaction. Profiles can be incorporated by reference into the definition of transactions: this decoupling of feature sets from transactions enables different transactions to share a common feature set, aiding in interoperability. If a given ANSI/NIST-ITL transaction is conformant with two or more profiles, the code for each profile is entered in a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	9
Character Types	Special Characters	Format	Constraints
N	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:ExtendedFeatureSetProfileCode

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.307: EFS Pattern Classification (PAT)**

**Description:**

This optional field contains fingerprint classification information for the image. This field shall only be used for fingerprints, and shall be omitted for other friction ridge impressions. The field consists of three information items grouped together in a subfield. There may be up to seven subfields, indicating all possible pattern classifications.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FingerprintPatternClassification

XML Min/Max: 0 / 7

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.307\_0: EFS Pattern Classification - Subfields: Repeating sets of information items (PAT\_0)**

**Description:**

This optional field contains fingerprint classification information for the image. This field shall only be used for fingerprints, and shall be omitted for other friction ridge impressions. The field consists of three information items grouped together in a subfield. There may be up to seven subfields, indicating all possible pattern classifications.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	7
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FingerprintPatternClassification

XML Min/Max: 0 / 7

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.307\_1: EFS Pattern Classification - General Class (GCF)**

**Description:**

This information item is the general set of pattern classifications (arch, whorl, left & right loop) used by most current automated systems. This is a two character value selected from the specified codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	See Look Up Codes

Code List: FINGERPRINT CJIS PATTERN CLASSIFICATION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FingerprintPatternClassification

NIEM Element: biom:FingerprintPatternGeneralClassCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.307\_2: EFS Pattern Classification - Subclass (SUB)**

**Description:**

This information item is the detailed sub-classification of arches and whorls that may optionally be provided by a human examiner or automated system. This information item shall only be included for arches or whorls, and only if the sub-classification can be determined precisely. This is a two character value selected from the specified codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	See Look Up Codes

Code List: FINGERPRINT CLASSIFICATION

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FingerprintPatternClassification

NIEM Element: biom:FingerprintPatternSubClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

9.307\_3: EFS Pattern Classification - Whorl-Delta Relationship (WDR)

**Description:**

This information item may optionally be used by a human examiner or automated system to provide the relationship between the deltas in a whorl. This information item shall only be included for whorls if the subclass is known, and only if the whorl delta relationship can be determined precisely.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	WDR = I, O or M

Code List: WHORL-DELTA RELATIONSHIP CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FingerprintPatternClassification

NIEM Element: biom:FingerprintPatternWhorlDeltaRelationshipCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

9.308: EFS Ridge Quality Map (RQM)

**Description:**

Local friction ridge quality (as defined in the Ridge Quality Map) is an assessment of confidence in small local areas within an image. The local quality map is used to define the confidence in all other features, and therefore is key information. In addition, when the quality map indicates a high-quality region in which features are not marked, that information can be used as “negative features” or definitive absence of features, which can be used for exclusion. For every cell in a grid superimposed on the Region of Interest, this optional field notes the local ridge quality of the friction ridge detail within that cell. Local ridge quality defines clarity in terms of the ability to discern detail in a given location. The quality of each cell will be represented with a local quality value 0 through 5 representing the quality of ridge detail in that cell, as specified in Table 45 of the ANSI/NIST-ITL 1-2011 Update: 2015. If a region of interest is defined, cells outside of the ROI polygon shall be set to a local quality value of 0 (black). This optional field is comprised of a repeating set of values. The number of subfields corresponds to the number of cells in a column of the image. Each row value is encoded as shown in Table 34 of the ANSI/NIST-ITL 1-2011 Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	See Look Up Codes

Code List: RIDGE QUALITY MAP CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeQualityMap

NIEM Element: biom:MinutiaeRidgeQualityMapRowText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.308\_0: EFS Ridge Quality Map - Subfields: Repeating sets of information items (RQM\_0)**

**Description:**

Local friction ridge quality (as defined in the Ridge Quality Map) is an assessment of confidence in small local areas within an image. The local quality map is used to define the confidence in all other features, and therefore is key information. In addition, when the quality map indicates a high-quality region in which features are not marked, that information can be used as “negative features” or definitive absence of features, which can be used for exclusion. For every cell in a grid superimposed on the Region of Interest, this optional field notes the local ridge quality of the friction ridge detail within that cell. Local ridge quality defines clarity in terms of the ability to discern detail in a given location. The quality of each cell will be represented with a local quality value 0 through 5 representing the quality of ridge detail in that cell, as specified in Table 45 of the ANSI/NIST-ITL 1-2011 Update: 2015. If a region of interest is defined, cells outside of the ROI polygon shall be set to a local quality value of 0 (black). This optional field is comprised of a repeating set of values. The number of subfields corresponds to the number of cells in a column of the image. Each row value is encoded as shown in Table 34 of the ANSI/NIST-ITL 1-2011 Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50000	0	Round Up (EHI ÷ GSZ)

Character Types	Special Characters	Format	Constraints
H	n/a	n/a	See Look Up Codes

Code List: RIDGE QUALITY MAP CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeQualityMap

NIEM Element: biom:MinutiaeRidgeQualityMapRowText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.309: Ridge Quality Map Format (RQF)**

**Description:**

This optional field defines the grid size or data representation format used in Field 9.308: EFS ridge quality/confidence map/RQM. Its use is mandatory if that field is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1

Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeQualityMap

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.309\_1: Ridge Quality Map Format - Grid Size (GSZ)**

**Description:**

This information item shall be used to define grid sizes (both the horizontal and vertical dimensions of a single cell in the grid): valid settings range from "1" (0.01 mm) through "41" (0.41 mm). The recommended grid size is 0.20mm (0.008") – note this is 4 pixels at 500 ppi, or 8 pixels at 1000 ppi.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ GSZ ≤ 41; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeQualityMap

NIEM Element: biom:MinutiaeRidgeQualityMapCellSizeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.309\_2: Ridge Quality Map Format - Ridge Quality Data Format (RDF)**

**Description:**

This information item defines the format used in Field 9.308. For all formats: The first cell starts at the top left corner of the Region of Interest, with cells in order left to right. All of the quality values for each row are stored in one repeating subfield. The subfields are ordered from top to bottom. If the width and/or height of the Region of Interest are not evenly divisible by the Grid Size, partial cells shall be included at the right and/or bottom of the ridge flow map.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	RDF = UNC or RLE; See Look Up Codes

Code List: RIDGE QUALITY DATA FORMAT CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeQualityMap

NIEM Element: biom:MinutiaeRidgeQualityMapFormatCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.310: EFS Ridge Flow Map (RFM)**

**Description:**

This optional field contains the direction of friction ridges at sampling points throughout the region of interest. The sampling frequency is optionally defined in Field 9.311: EFS ridge flow map format/RFF, and otherwise defaults to 0.41 mm in uncompressed format. The first sampling point in the image is the top left-most point in the region of interest. The same sampling frequency is used both horizontally and vertically. Values shall be included for all sampling points in the region of interest, even if the sampling points are at the edge of the region of interest. For each sampling point, angles shall be reported in integer degrees, with 0 degrees to the right (horizontal), increasing counterclockwise to a maximum value of 179° (since 180°=0°). Undefined angles are recorded in Field 9.311: EFS ridge flow map format/RFF. Each subfield corresponds to one row of the map in order from top to bottom. The area used for determining direction (window size) may be larger or smaller than the sampling frequency. Different window sizes may be used within a single image, at the discretion of the implementer. For example, an implementer may choose to use a uniform window size except in areas of high curvature, in which a smaller window size may be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	See Look Up Codes

Code List: EFS RIDGE FLOW MAP CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeFlowMap

NIEM Element: biom:MinutiaeRidgeFlowMapRowText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.310\_0: EFS Ridge Flow Map - Subfields: Repeating sets of information items (RFM\_0)**

**Description:**

This optional field contains the direction of friction ridges at sampling points throughout the region of interest. The sampling frequency is optionally defined in Field 9.311: EFS ridge flow map format/RFF, and otherwise defaults to 0.41 mm in uncompressed format. The first sampling point in the image is the top left-most point in the region of interest. The same sampling frequency is used both horizontally and vertically. Values shall be included for all sampling points in the region of interest, even if the sampling points are at the edge of the region of interest. For each sampling point, angles shall be reported in integer degrees, with 0 degrees to the right (horizontal), increasing counterclockwise to a maximum value of 179° (since 180°=0°). Undefined angles are recorded in Field 9.311: EFS ridge flow map format/RFF. Each subfield corresponds to one row of the map in order from top to bottom. The area used for determining direction (window size) may be larger or smaller than the sampling frequency. Different window sizes may be used within a single image, at the discretion of the implementer. For example, an implementer may choose to use a uniform window size except in areas of high curvature, in which a smaller window size may be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100000	1	Round Up (EHI ÷ SFQ)

Character Types	Special Characters	Format	Constraints
Base 64	n/a	n/a	See Look Up Codes

Code List: EFS RIDGE FLOW MAP CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeFlowMap

NIEM Element: biom:MinutiaeRidgeFlowMapRowText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.311: EFS Ridge Flow Map Format (RFF)**

**Description:**

This optional field permits setting the sampling frequency or data representation format used in the Field 9.310: RFM to values other than the defaults. Its use is conditional on the presence of Field 9.310.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1

Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeFlowMap

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.311\_1: EFS Ridge Flow Map Format - Sampling Frequency (SFQ)**

**Description:**

This information item is set by default to 0.41 mm (0.016"). This information item may be used to define higher resolution sampling frequencies than the default: valid settings range from "1" (0.01 mm) through "41" (0.41 mm), inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ SFQ ≤ 41; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeFlowMap

NIEM Element: biom:MinutiaeRidgeFlowMapSamplingFrequencyValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.311\_2: EFS Ridge Flow Map Format - Ridge Flow Data Format (RDF)**

**Description:**

This information item defines the format used in the Ridge Flow Map field. The default is the uncompressed ("UNC") format.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
AN	n/a	n/a	RDF = UNC or B64. See Look Up Codes

Code List: EFS RIDGE WAVELENGTH MAP DATA FORMAT CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeFlowMap

NIEM Element: biom:MinutiaeRidgeFlowMapFormatCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.312: EFS Ridge Wavelength Map (RWM)**

**Description:**

This optional field contains the peak-to-peak distance between ridges at various sampling points throughout the region of interest. The sampling frequency is optionally defined in Field 9.313: RWF, and otherwise defaults to 0.41 mm in uncompressed format. The first sampling point in the image is the top left-most point. The same sampling frequency is used both horizontally and vertically. Values shall be included for all sampling points in the image, even if the sampling points are at the edge of the image. For each sampling point in the Region of Interest, distances between ridge peaks, measured perpendicular to ridge flow, shall be reported in 2-character decimal format using units of 10 micrometers (0.01 mm). The size of the area around the sampling point (window size) used to determine measurements is left to the discretion of the implementer, and may vary within an image. Unknown values shall be set to "XX". Valid values are therefore "01" (0.01 mm) through "99" (0.99 mm or greater). (In practice, the actual stored values are likely to be "30" to "70" in most cases (0.3 – 0.7 mm). The 2-character decimal wavelength values for each sampling point are concatenated left to right for all sampling points in a row. Each subfield corresponds to one row of the map, in order from top to bottom. The number of characters in one subfield is twice the number of sampling points in one row.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeWavelengthMap

NIEM Element: biom:MinutiaeRidgeWavelengthMapRowText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.312\_0: EFS Ridge Wavelength Map - Subfields: Repeating sets of information items (RWM\_0)**

**Description:**

This optional field contains the peak-to-peak distance between ridges at various sampling points throughout the region of interest. The sampling frequency is optionally defined in Field 9.313: RWF, and otherwise defaults to 0.41 mm in uncompressed format. The first sampling point in the image is the top left-most point. The same sampling frequency is used both horizontally and vertically. Values shall be included for all sampling points in the image, even if the sampling points are at the edge of the image. For each sampling point in the Region of Interest, distances between ridge peaks, measured perpendicular to ridge flow, shall be reported in 2-character decimal format using units of 10 micrometers (0.01 mm). The size of the area around the sampling point (window size) used to determine measurements is left to the discretion of the implementer, and may vary within an image. Unknown values shall be set to "XX". Valid values are therefore "01" (0.01 mm) through "99" (0.99 mm or greater). (In practice, the actual stored values are likely to be "30" to "70" in most cases (0.3 – 0.7 mm). The 2-character decimal wavelength values for each sampling point are concatenated left to right for all sampling points in a row. Each subfield corresponds to one row of the map, in order from top to bottom. The number of characters in one subfield is twice the number of sampling points in one row.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100000	1	Round Up (EHI ÷ FWS)
Character Types	Special Characters	Format	Constraints
AN	n/a	n/a	String containing 2-digit positive integers or XX characters

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeWavelengthMap

NIEM Element: biom:MinutiaeRidgeWavelengthMapRowText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.313: EFS Ridge Wavelength Map Format (RWF)**

**Description:**

This field permits setting the sampling frequency or data representation format used in Field 9.312: EFS ridge wavelength map / RWM to values other than the defaults, and is conditional on the presence of Field 9.312.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeWavelengthMap

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.313\_1: EFS Ridge Wavelength Map Format - Sampling Frequency (FWS)**

**Description:**

This information item is set by default to 0.41 mm (0.016"). This information item may be used to define higher resolution sampling frequencies than the default: valid settings range from "1" (0.01 mm) through "41" (0.41 mm), inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ FWS ≤ 41; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeWavelengthMap

NIEM Element: biom:MinutiaeRidgeWavelengthMapSamplingFrequencyValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.313\_2: EFS Ridge Wavelength Map Format - Data Format (FDF)**

**Description:**

This information item is optional and it defines the format used in Field 9.312. The default (and currently the only setting) is the uncompressed ("UNC") format.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	FDF = UNC

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeWavelengthMap

NIEM Element: biom:MinutiaeRidgeWavelengthMapFormatCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.314: EFS Tonal Reversal (TRV)**

**Description:**

Ridges in friction ridge images are generally represented as dark areas, with valleys as light areas, in which case this field is omitted. This field indicates whether the entire image is reversed tonally (black-for-white). If all or part of the image is reversed tonally, this 1-character optional field is set to the appropriate value from Table 48 of the ANSI/NIST-ITL 1-2011 Update: 2015. The Unknown code is used in the unusual cases that it cannot be determined whether ridges or valley are represented as dark or light areas in the image. Partial tonal inversion can occur in different ways. If definable portions of the image are negative, Field 9.357: EFS local quality issues / LQI can be used to define the specific tonally reversed areas. 129 Note that in some cases, the tonal reversal is so mixed that only portions of individual ridges are reversed, making it impractical or impossible to define the tonally reversed areas. When this field is set, the image in the Type-13 record shall be left as it was originally received (i.e., tonally reversed): setting this field and reversing the image when saving will result in inconsistent data. When this field is set, a software user interface may display the tonally corrected image, but save the image as originally received with this field set.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	TRV = N, P, or U; See Look Up Codes

Code List: EFS TONAL REVERSAL CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageTonalReversalCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.315: EFS Possible Lateral Reversal (PLR)**

**Description:**

This field indicates if the original image is or may be laterally reversed (i.e., flipped left-right). In many cases, an examiner cannot tell the correct lateral direction of the image, such as latents on tape that has been closed on itself, or latents that transferred to the substrate/surface. If the image is or may be laterally reversed, this 1- character optional field is set to the appropriate value from Table 37 of the ANSI/NIST-ITL 1-2011 Update: 2015. Otherwise, this field is to be omitted. When this field is set to L (Image is known to be laterally reversed), the image in the associated Type-13 record shall be left as it was originally received (i.e., laterally reversed): setting this field and reversing the image when saving will result in inconsistent data. When this field is set a software user interface may display the laterally corrected image, but save the image as received with this field set. When this field is set to U (Image may be laterally reversed), it is incumbent on the recipient (software system or examiner) to search/compare the impression and features both as presented and flipped left-right.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	PLR = L, U; See Look Up Codes

Code List: EFS POSSIBLE LATERAL REVERSAL CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageLateralReversalCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.316: EFS Friction Ridge Quality Metric (FQM)**

**Description:**

This optional field specifies one or more different metrics of friction ridge quality for the friction ridge impression corresponding to this record, as delimited by the region of interest.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:ImageQuality

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.316\_0: EFS Friction Ridge Quality Metric - Subfields: Repeating sets of information items (FQM\_0)**

**Description:**

This optional field specifies one or more different metrics of friction ridge quality for the friction ridge impression corresponding to this record, as delimited by the region of interest.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:ImageQuality

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.316\_1: EFS Friction Ridge Quality Metric - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ QVU ≤ 100 or QVU = 254 or QVU = 255; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:ImageQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.316\_2: EFS Friction Ridge Quality Metric - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	n/a	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:ImageQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.316\_3: EFS Friction Ridge Quality Metric - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, and indicates which of the vendor's algorithms was used in the calculation of the quality score. Description may be registered with the IBIA, but registration is not required. This field contains the ASCII representation of the integer product code and should be within the range of 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ QAP ≤ 65,535; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:ImageQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.317: EFS Possible Growth or Shrinkage (PGS)**

**Description:**

This optional field is only used in the unusual circumstance that the friction ridge impression is believed to have changed size or scale from potential comparisons. This provides for handling of images from deceased subjects with desiccated skin, or with swollen skin due to water exposure. This also provides for handling of overall growth of subjects between capture, such as in comparing an adult's fingerprints with those taken as a child. In these cases the size of ridges and distances between ridges change to a greater extent than would ordinarily be assumed in comparisons; this field acts as a flag to indicate that greater than ordinary dimensional variation should be expected in performing subsequent comparisons. This field is to be omitted unless there is reason to believe that growth or shrinkage may have occurred.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeGrowthOrShrinkage

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.317\_1: EFS Possible Growth or Shrinkage - Growth or Shrinkage Type (TGS)**

**Description:**

The first information item is one character. See look up codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	TGS = G, S, or B; See Look Up Codes

Code List: EFS POSSIBLE GROWTH OR SHRINKAGE TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeGrowthOrShrinkage

NIEM Element: biom:MinutiaeGrowthOrShrinkageCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.317\_2: EFS Possible Growth or Shrinkage - Growth or Shrinkage Comment (CGS)**

**Description:**

This information item contains optional text describing the rationale for believing that growth or shrinkage may have occurred.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	none

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeGrowthOrShrinkage

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.320: EFS Cores (COR)**

**Description:**

A core is located at the focus of the innermost recurving ridge line of a ridge pattern: if the ridge is viewed as a section of a circle, the core is the center of that circle; if the ridge is viewed as an ellipse or parabola, the core is the focal point of that curve. Note that the core is not on the innermost recurving ridgeline itself. The direction of the core is away from the center of the curve. The core or cores of a fingerprint are defined for all pattern classifications other than plain arches, as shown in Table 51 of the ANSI/NIST-ITL 1-2011 Update: 2015. Cores may be marked on tented arches if an innermost recurving ridge is present above the delta, so that each side of the recurving ridge extends to either side of the delta. Plain or central pocket loop whorls will only have one core if the innermost recurving ridge is circular, or two cores if elliptical. A circular whorl only has one core and does not have a defined direction. Accidentals may have any number of cores. If one or more cores are present and the feature set is from a fingerprint, Field 9.307: EFS pattern classification / PAT should be defined. Note that this does not mean that the classification has to be known definitively, but must at least be known to the extent of excluding plain arches. When no cores are present, this field shall not be used. For palm prints or other non-fingerprint friction ridge images, any number of core-like patterns may be defined using this field if such structures are present. Each core is defined in a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeCore

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.320\_0: EFS Cores - Subfields: Repeating sets of information items (COR\_0)**

**Description:**

A core is located at the focus of the innermost recurving ridge line of a ridge pattern: if the ridge is viewed as a section of a circle, the core is the center of that circle; if the ridge is viewed as an ellipse or parabola, the core is the focal point of that curve. Note that the core is not on the innermost recurving ridgeline itself. The direction of the core is away from the center of the curve. The core or cores of a fingerprint are defined for all pattern classifications other than plain arches, as shown in Table 51 of the ANSI/NIST-ITL 1-2011 Update: 2015. Cores may be marked on tented arches if an innermost recurving ridge is present above the delta, so that each side of the recurving ridge extends to either side of the delta. Plain or central pocket loop whorls will only have one core if the innermost recurving ridge is circular, or two cores if elliptical. A circular whorl only has one core and does not have a defined direction. Accidentals may have any number of cores. If one or more cores are present and the feature set is from a fingerprint, Field 9.307: EFS pattern classification / PAT should be defined. Note that this does not mean that the classification has to be known definitively, but must at least be known to the extent of excluding plain arches. When no cores are present, this field shall not be used. For palm prints or other non-fingerprint friction ridge images, any number of core-like patterns may be defined using this field if such structures are present. Each core is defined in a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeCore

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.320\_1: EFS Cores - X Coordinate (CXC)**

**Description:**

This information item shall be expressed in integer units of 10 micrometers (0.01mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ CXC < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeCore/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.320\_2: EFS Cores - Y Coordinate (CYC)**

**Description:**

This information item shall be expressed in integer units of 10 micrometers (0.01mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ CYC <EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeCore/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.320\_3: EFS Cores - Direction (CDI)**

**Description:**

This information item is optional and shall be set to the average tangent direction of the two closest ridges as measured 1.63 mm (0.064 inches) from the focal point. This is approximately the same as the direction of the directrix of the best fitting parabola. The direction shall be omitted (left empty) for circular whorls, or if the direction is unknown.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ CDI ≤ 359; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeCore

NIEM Element: biom:MinutiaeCoreDirectionMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.320\_4: EFS Cores - Radius of Position Uncertainty (RPU)**

**Description:**

This information item defines the radius of a circle centered at the location (X,Y) of the core; the circle is sized to include the area of other possible locations of the core, if the precise location cannot be determined (such as due to poor clarity). If the location is known precisely, the radius of position uncertainty may be omitted or set to 0. The radius of uncertainty is measured in integer units of 10 micrometers(0.01 mm), and may overlap the edge of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ RPU ≤ 999; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeCore

NIEM Element: biom:ImageLocationUncertaintyRadiusMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.320\_5: EFS Cores - Direction Uncertainty (DUY)**

**Description:**

This information item is optional. It contains the uncertainty of the direction of the core, in non-negative integer degrees. Valid values range from “0” to “180”: a value of “0” (default) indicates a certain direction, while a value of “180” indicates an unknown orientation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DUY ≤ 180; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeCore

NIEM Element: biom:MinutiaeCoreDirectionUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.321: EFS Deltas (DEL)**

**Description:**

For fingerprints, one or more deltas are defined for all pattern classifications other than plain arches (see look up codes). For palm prints or other non-fingerprint friction ridge images, any number of delta-like patterns may be defined using this field if such structures are present. Each delta is defined in a separate subfield. When no deltas are present, this field shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeDelta

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.321\_0: EFS Deltas - Subfields: Repeating sets of information items (DEL\_0)**

**Description:**

For fingerprints, one or more deltas are defined for all pattern classifications other than plain arches (see look up codes). For palm prints or other non-fingerprint friction ridge images, any number of delta-like patterns may be defined using this field if such structures are present. Each delta is defined in a separate subfield. When no deltas are present, this field shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeDelta

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.321\_1: EFS Deltas - X Coordinate (DXC)**

**Description:**

This information item shall be expressed in integer units of 10 micrometers (0.01mm) and is mandatory.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DXC < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.321\_2: EFS Deltas - Y Coordinate (DYC)**

**Description:**

This information item shall be expressed in integer units of 10 micrometers (0.01mm) and is mandatory.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DYC < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.321\_3: EFS Deltas - Direction Up (DUP)**

**Description:**

This information item is optional and is expressed in degrees counterclockwise from the right.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DUP ≤ 359; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:MinutiaeDeltaDirectionUpMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.321\_4: EFS Deltas - Direction Left (DLF)**

**Description:**

This information item is optional and is expressed in degrees counterclockwise from the right.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DLF ≤ 359; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:MinutiaeDeltaDirectionLeftMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.321\_5: EFS Deltas - Direction Right (DRT)**

**Description:**

This information item is optional and is expressed in degrees counterclockwise from the right.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DRT ≤ 359; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:MinutiaeDeltaDirectionRightMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.321\_6: EFS Deltas - Type (DTP)**

**Description:**

This information item is optional and contains the type of delta, as defined in the look up codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
0	3	0	1
Character Types	Special Characters	Format	Constraints
AN	n/a	n/a	DTP = L, R, I00, I02..I05, I07..I10, I16, I17, C, NULL; See Look Up Codes

Code List: EFS DELTA TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:MinutiaeDeltaCategoryCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.321\_7: EFS Deltas - Radius of Position Uncertainty (RPU)**

**Description:**

This information item is optional and it defines the radius of a circle centered at the location (X,Y) of the delta; the circle is sized to include the area of other possible locations of the delta, if the precise location cannot be determined (e.g., poor clarity). If the location is known precisely, the radius of position uncertainty may be omitted or set to 0. The radius of uncertainty is measured in integer units of 10 micrometers (0.01 mm), and may overlap the edge of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ RPU ≤ 999; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:ImageLocationUncertaintyRadiusMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.321\_8: EFS Deltas - Direction Uncertainty Up (DUU)**

**Description:**

This information item is optional and it contains the uncertainty of the delta angle up. Valid values range from "0" to "180": a value of "0" (default) indicates a certain direction, while a value of "180" indicates an unknown orientation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DUU ≤ 180; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:MinutiaeDeltaDirectionUpUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.321\_9: EFS Deltas - Direction Uncertainty Left (DUL)**

**Description:**

This information item is optional and it contains the uncertainty of the delta angle left. Valid values range from “0” to “180”: a value of “0” (default) indicates a certain direction, while a value of “180” indicates an unknown orientation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DUL ≤ 180; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:MinutiaeDeltaDirectionLeftUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.321\_10: EFS Deltas - Direction Uncertainty Right (DUR)**

**Description:**

This information item is optional and it contains the uncertainty of the delta angle right. Valid values range from “0” to “180”: a value of “0” (default) indicates a certain direction, while a value of “180” indicates an unknown orientation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ DUR ≤ 180; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDelta

NIEM Element: biom:MinutiaeDeltaDirectionRightUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.322: EFS Core-Delta Ridge Counts (CDR)**

**Description:**

This field contains the count of intervening ridges between each core and delta. Each ridge count has a minimum and maximum value, so that a range may be noted. If the exact value is known, then that value should be put in the minimum and maximum fields. If only a minimum is known, such as when a delta is not visible, the maximum value shall be omitted. Ridge counts may be any non-negative integer. When this field is used for fingerprints, ridge counts shall be provided between each core and each delta, unless there are more than two cores or two deltas in an accidental whorl, in which case only the leftmost and rightmost of the cores and deltas need be used for ridge counts. Each subfield represents a distinct core-delta ridge count.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeCountCoreToDelta

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.322\_0: EFS Core-Delta Ridge Counts - Subfields: Repeating sets of information items (CDR\_0)**

**Description:**

This field contains the count of intervening ridges between each core and delta. Each ridge count has a minimum and maximum value, so that a range may be noted. If the exact value is known, then that value should be put in the minimum and maximum fields. If only a minimum is known, such as when a delta is not visible, the maximum value shall be omitted. Ridge counts may be any non-negative integer. When this field is used for fingerprints, ridge counts shall be provided between each core and each delta, unless there are more than two cores or two deltas in an accidental whorl, in which case only the leftmost and rightmost of the cores and deltas need be used for ridge counts. Each subfield represents a distinct core-delta ridge count.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeCountCoreToDelta

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.322\_1: EFS Core-Delta Ridge Counts - Core Index (CIX)**

**Description:**

The first information item (core index / CIX) is the (1-based) index of the core corresponding to this count (“1” if only one core is defined). If the relevant core is not defined, this shall be set to “U” to indicate an upper core or “L” to indicate a lower core (whorls only), permitting minimum ridge counts when cores are not in the region of interest.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
AN	n/a	n/a	1 ≤ CIX ≤ 99; positive integer or CIX = L or U

Code List: CORE INDEX CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeCountCoreToDelta

NIEM Element: biom:CoreID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.322\_2: EFS Core-Delta Ridge Counts - Delta Index (DIX)**

**Description:**

This information item is the (1-based) index of the delta corresponding to this count (“1” if only one delta is defined). If the relevant delta is not defined, this shall be set to “L” to indicate a left delta or “R” to indicate a right delta, permitting when deltas are not in the region of interest.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
AN	n/a	n/a	1 ≤ DIX ≤ 99; positive integer or DIX = L or R

Code List: DELTA INDEX CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeCountCoreToDelta

NIEM Element: biom:DeltaID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.322\_3: EFS Core-Delta Ridge Counts - Min Ridge Count (MNRC)**

**Description:**

This information item contains the precise ridge count, if it is known; otherwise, it contains the minimum of the range of ridge count values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ MNRC ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeCountCoreToDelta

NIEM Element: biom:RidgeCountMinimumValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.322\_4: EFS Core-Delta Ridge Counts - Max Ridge Count (MXRC)**

**Description:**

This information item contains the precise ridge count (if the count is known precisely), or the maximum range of ridge count values (if there is a known or estimated maximum); otherwise, it shall be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ MXRC ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeCountCoreToDelta

NIEM Element: biom:RidgeCountMaximumValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.323: EFS Center Point of Reference (CPR)**

**Description:**

This field contains the location of a center point of reference of a fingerprint, which may be used to define how centered a fingerprint is, as a feature, for registration or orientation, and for quality measurements. While the core may serve some of the same purposes, a center point of reference is defined for arches and provides a single center location for complex whorls, unlike cores. The center point of reference is the sole EFS feature that can be located outside of the EFS region of interest. For example, this allows the estimated center of the finger to be marked even for an extreme side. The origin of CPR, like all other EFS features, is relative to the top left of Field 9.300: EFS region of interest / ROI. Note that this means that the X and Y values for CPR are the only EFS coordinates that may be negative, or greater than the ROI width or height. The center point of reference must be within the bounds of the overall image itself. Thus the allowed special character is the negative sign.

The location of a center point of reference can be determined using different algorithms, as stored in the Method information item, in which case different center points of reference may be stored in different data entries (repeating subfield). The center point of reference is defined for fingerprints or toe prints, not for other types of friction ridge images.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageCenter

XML Min/Max: 0 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.323\_0: EFS Center Point of Reference - Subfields: Repeating sets of information items (CPR\_0)**

**Description:**

This field contains the location of a center point of reference of a fingerprint, which may be used to define how centered a fingerprint is, as a feature, for registration or orientation, and for quality measurements. While the core may serve some of the same purposes, a center point of reference is defined for arches and provides a single center location for complex whorls, unlike cores. The center point of reference is the sole EFS feature that can be located outside of the EFS region of interest. For example, this allows the estimated center of the finger to be marked even for an extreme side. The origin of CPR, like all other EFS features, is relative to the top left of Field 9.300: EFS region of interest / ROI. Note that this means that the X and Y values for CPR are the only EFS coordinates that may be negative, or greater than the ROI width or height. The center point of reference must be within the bounds of the overall image itself. Thus the allowed special character is the negative sign.

The location of a center point of reference can be determined using different algorithms, as stored in the Method information item, in which case different center points of reference may be stored in different data entries (repeating subfield). The center point of reference is defined for fingerprints or toe prints, not for other types of friction ridge images.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	3
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageCenter

XML Min/Max: 0 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.323\_1: EFS Center Point of Reference - Method (CPM)**

**Description:**

This information item is the method of determining the X, Y location. It is a one character value. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
AN	n/a	n/a	CPM = L, 0, 1, or H

Code List: EFS CENTER POINT OF REFERENCE METHOD CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FrictionRidgeImageCenter

NIEM Element: biom:FrictionRidgeImageCenterLocationMethodCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.323\_2: EFS Center Point of Reference - X Coordinate (PXC)**

**Description:**

This information item is in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign	n/a	-EHO ≤ PXC ≤ 50000; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FrictionRidgeImageCenter

NIEM Element: biom:ImageLocationHorizontalCoordinateMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.323\_3: EFS Center Point of Reference - Y Coordinate (PYC)**

**Description:**

This information item is in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign	n/a	-EVO ≤ PYC ≤ 50000; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FrictionRidgeImageCenter

NIEM Element: biom:ImageLocationVerticalCoordinateMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.323\_4: EFS Center Point of Reference - Radius of Position Uncertainty (CRU)**

**Description:**

This information item is optional. The radius of position uncertainty is 0 (default) if the location is known precisely; otherwise the position is marked at the best estimate of position, with a radius including the area of other possible locations, in integer units of 10 micrometers (0.01 mm). The radius of uncertainty may overlap the edge of the image. The radius of uncertainty may overlap the edge of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ CRU ≤ 999; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FrictionRidgeImageCenter

NIEM Element: biom:ImageLocationUncertaintyRadiusMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.324: EFS Distinctive Features (DIS)**

**Description:**

This field is used to define one or more areas containing unusually discriminating features that are not fully defined using other Extended Friction Ridge features. The characteristics noted in this field are specific to the friction skin itself, as opposed to those (such as smudging) that are noted in Field 9.357: LQI. When no distinctive features are present, this field shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeDistinctiveFeature

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.324\_0: EFS Distinctive Features - Subfields: Repeating sets of information items (DIS\_0)**

**Description:**

This field is used to define one or more areas containing unusually discriminating features that are not fully defined using other Extended Friction Ridge features. The characteristics noted in this field are specific to the friction skin itself, as opposed to those (such as smudging) that are noted in Field 9.357: LQI. When no distinctive features are present, this field shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	99
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeDistinctiveFeature

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.324\_1: EFS Distinctive Features - Distinctive Feature Type (DIT)**

**Description:**

See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	9	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	DIT = SCAR, WART, MINGROUP, CORE, DELTA, MINUTIA, CREASE, CLEAR, DYSPLASIA, OTHERFEAT

Code List: EFS DISTINCTIVE FEATURES TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDistinctiveFeature

NIEM Element: biom:MinutiaeDistinctiveFeatureCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.324\_2: EFS Distinctive Features - Distinctive Features Polygon (DFP)**

**Description:**

This information item is optional. It is a closed path polygon that outlines the area of the distinctive feature. In Traditional encoding, the two special characters allowed are hyphen and comma. These special characters are not used in XML Encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	99
Character Types	Special Characters	Format	Constraints
NS	T = Minus Sign and Comma; X = None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDistinctiveFeature/biom:ImageSegmentPolygon

NIEM Element: biom:PositionPolygonVertex

XML Min/Max: 3 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.324\_3: EFS Distinctive Features - Distinctive Features Comment (DFC)**

**Description:**

This information item shall contain optional text describing the feature. It is a maximum of 1000 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDistinctiveFeature

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.325: EFS No Cores Present (NCOR)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no cores could be discerned in the image. If the analysis process has determined that no cores could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted. NIEM requires that anything that is an 'indicator' shall be Boolean. Thus, in NIEM conformant encoding this has a value of 'true' or '1'. Therefore the maximum character count becomes 4 and the type becomes AN for NIEM-conformant XML encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoCoresPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.326: EFS No Deltas Present (NDEL)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no deltas could be discerned in the image. If the analysis process has determined that no deltas could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted. NIEM requires that anything that is an 'indicator' shall be Boolean. Thus, in NIEM conformant encoding this has a value of 'true' or '1'. Therefore the maximum character count becomes 4 and the type becomes AN for NIEM-conformant XML encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoDeltasPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.327: EFS No Distinctive Features Present (NDIS)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no distinctive features could be discerned in the image. If the analysis process has determined that no distinctive features could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted. NIEM requires that anything that is an 'indicator' shall be Boolean. Thus, in NIEM conformant encoding this has a value of 'true' or '1'. Therefore the maximum character count becomes 4 and the type becomes AN for NIEM-conformant XML encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoDistinctiveFeaturesPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.331: EFS Minutiae (MIN)**

**Description:**

The type of minutiae shall be marked if clearly identifiable as a ridge ending or bifurcation; otherwise, it shall be marked as unknown type. The location for a bifurcation shall be at the "Y" of the ridge, with the direction running down the valley. The location for a ridge ending or unknown type shall be at the "Y" of the valley, with the direction running up the ridge. If the precise location for a ridge ending cannot be ascertained, a radius of uncertainty shall be marked to include the area of possible locations. If the type is unknown, the radius of uncertainty shall be indicated. When no minutiae are present, this field shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSMinutia

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.331\_0: EFS Minutiae - Subfields: Repeating sets of information items (MIN\_0)**

**Description:**

The type of minutiae shall be marked if clearly identifiable as a ridge ending or bifurcation; otherwise, it shall be marked as unknown type. The location for a bifurcation shall be at the “Y” of the ridge, with the direction running down the valley. The location for a ridge ending or unknown type shall be at the “Y” of the valley, with the direction running up the ridge. If the precise location for a ridge ending cannot be ascertained, a radius of uncertainty shall be marked to include the area of possible locations. If the type is unknown, the radius of uncertainty shall be indicated. When no minutiae are present, this field shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSMinutia

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.331\_1: EFS Minutiae - X Coordinate (MXC)**

**Description:**

This information item is in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ MXC < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSMinutia/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.331\_2: EFS Minutiae - Y Coordinate (MYC)**

**Description:**

This information item is in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ MYC < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSMinutia/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.331\_3: EFS Minutiae - Theta Degrees (MTD)**

**Description:**

This information item is expressed in degrees in the range 0 to 359. If MDU is set to 180, MTD is undefined and should not be displayed to the user.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ MTD ≤ 359; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSMinutia

NIEM Element: biom:ImageLocationThetaAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.331\_4: EFS Minutiae - Minutiae Type (MTY)**

**Description:**

See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	MTY = E, B, or X

Code List: EFS MINUTIAE TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSSMinutia

NIEM Element: biom:MinutiaCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.331\_5: EFS Minutiae - Radius of Position Uncertainty (MRU)**

**Description:**

This information item defines the radius of a circle centered at the location (X,Y) of the minutia.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ MDU ≤ 999; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSSMinutia

NIEM Element: biom:ImageLocationUncertaintyRadiusMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.331\_6: EFS Minutiae - Minutia Direction of Uncertainty (MDU)**

**Description:**

This information item contains an integer from “0” (default) to “180” indicating the precision in the direction (theta) of the minutia, measured in degrees. The resulting direction is  $\text{Theta} \pm \text{Uncertainty}^\circ$ . If MDU is set to 180, MTD is undefined and should not be displayed to the user.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	$0 \leq \text{MDU} \leq 180$ ; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSSMinutia

NIEM Element: biom:MinutiaDirectionUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.332: EFS Minutiae Ridge Count Algorithm (MRA)**

**Description:**

This optional field defines the algorithm used in determining how neighboring minutiae are selected for use in the ridge counts in Field 9.333: MRC. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	8	0	1
Character Types	Special Characters	Format	Constraints
AN	none	n/a	MRA = OCTANT, EFTS7, or QUADRANT

Code List: EFS MINUTIAE RIDGE COUNT ALGORITHM CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSSRidgeCountAlgorithmCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.333: EFS Minutiae Ridge Counts (MRC)**

**Description:**

This field contains the counts of intervening ridges between specified minutiae. Field 9.332: MRA governs how the minutiae are selected for ridge counts, and the details of how the ridges are counted. Each ridge count is represented in a separate subfield. Field 9.335: RCC may be used to indicate ridge count confidence between minutiae. If Field 9.372: SIM is used, ridge counts can be derived from that field rather than included explicitly.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSSRidgeCountItem

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.333\_0: EFS Minutiae Ridge Counts - Subfields: Repeating sets of information items (MRC\_0)**

**Description:**

This field contains the counts of intervening ridges between specified minutiae. Field 9.332: MRA governs how the minutiae are selected for ridge counts, and the details of how the ridges are counted. Each ridge count is represented in a separate subfield. Field 9.335: RCC may be used to indicate ridge count confidence between minutiae. If Field 9.372: SIM is used, ridge counts can be derived from that field rather than included explicitly.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSSRidgeCountItem

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.333\_1: EFS Minutiae Ridge Counts - Minutiae Index A (MIA)**

**Description:**

This information item contains the (1-based) index of the first minutia.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ MIA ≤ 9999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSRidgeCountItem

NIEM Element: biom:MinutiaID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.333\_2: EFS Minutiae Ridge Counts - Minutiae Index B (MIB)**

**Description:**

This information item contains the (1-based) index of the second minutia.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ MIB ≤ 9999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSRidgeCountItem

NIEM Element: biom:MinutiaReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.333\_3: EFS Minutiae Ridge Counts - Ridge Count (MIR)**

**Description:**

This information item contains the number of intervening ridges between minutiae A and B. Unknown ridge counts shall be omitted (left empty). The Field 9.332: MRA governs other details or special cases (if any).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ MIR ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSRidgeCountItem

NIEM Element: biom:RidgeCountValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.333\_4: EFS Minutiae Ridge Counts - Reference Number (MRN)**

**Description:**

This information item is optional and, if used, contains a reference number specific to the ridge count algorithm. For the OCTANT and EFTS7 ridge count algorithms, this information item specifies the octant. For the QUADRANT ridge count algorithm, this information item specifies the quadrant.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ MRN ≤ 7; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSRidgeCountItem

NIEM Element: biom:MinutiaeRidgeCountOctantNumeric

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.333\_5: EFS Minutiae Ridge Counts - Residual (MRS)**

**Description:**

This information item is optional and is specific to the OCTANT and EFTS7 ridge count algorithms, specifying the half of the octant in which the neighboring minutia lies. The residual is 0 if the neighboring minutia lies in the clockwise half of the octant, or 1 if the minutia lies in the counterclockwise half of the octant.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	MRS = 0 or 1; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSTRidgeCountItem

NIEM Element: biom:MinutiaeRidgeCountResidualCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.334: EFS No Minutiae Present (NMIN)**

**Description:**

This optional field indicates whether the analysis determined that no minutiae could be discerned in the image. If the analysis process has determined that no minutiae could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoMinutiaePresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.335: EFS Ridge Count Confidence (RCC)**

**Description:**

This field is optional if Field 9.333: EFS minutiae ridge counts / MRC appears in the record and shall not otherwise be included. It is used to indicate confidence in intervening ridge counts between any two points. Each ridge count confidence value is represented in a separate data entry (repeating subfield). While primarily used to indicate ridge count confidence between minutiae, this confidence measure may also apply to other features such as Core/Delta ridge counts. If this field is not used, the default assumption is that the ridge counts were manually determined. This field provides a means to state when only a portion of ridge counts have been manually checked.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeCountConfidence

XML Min/Max: 0 / 7992

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.335\_0: EFS Ridge Count Confidence - Subfields: Repeating sets of information items (RCC\_0)**

**Description:**

This field is optional if Field 9.333: EFS minutiae ridge counts / MRC appears in the record and shall not otherwise be included. It is used to indicate confidence in intervening ridge counts between any two points. Each ridge count confidence value is represented in a separate data entry (repeating subfield). While primarily used to indicate ridge count confidence between minutiae, this confidence measure may also apply to other features such as Core/Delta ridge counts. If this field is not used, the default assumption is that the ridge counts were manually determined. This field provides a means to state when only a portion of ridge counts have been manually checked.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	7992
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeCountConfidence

XML Min/Max: 0 / 7992

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.335\_1: EFS Ridge Count Confidence - X Coordinate Point A (ACX)**

**Description:**

This information item contains the x coordinates for Point A, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ ACX < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeRidgeCountConfidence/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.335\_2: EFS Ridge Count Confidence - Y Coordinate Point A (ACY)**

**Description:**

This information item contains the y coordinates for Point A, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ ACY < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeRidgeCountConfidence/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.335\_3: EFS Ridge Count Confidence - X Coordinate Point B (BCX)**

**Description:**

This information item contains the x coordinates for Point B, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ BCX < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeCountConfidence/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.335\_4: EFS Ridge Count Confidence - Y Coordinate Point B (BCY)**

**Description:**

This information item contains the y coordinates for Point B, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ BCY < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeRidgeCountConfidence/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.335\_5: EFS Ridge Count Confidence - Method of Ridge Counting (MORC)**

**Description:**

This information item states the method by which ridge counts were determined and / or validated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	MORC = A, T, or M

Code List: EFS METHOD OF RIDGE COUNTING CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeCountConfidence

NIEM Element: biom:MinutiaeRidgeCountMethodCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.335\_6: EFS Ridge Count Confidence - Confidence Value (MCV)**

**Description:**

This information item contains the integer confidence value for a ridge count from 0 to 99, with 0 indicating no confidence.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ MCV ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeCountConfidence

NIEM Element: biom:MinutiaeRidgeCountConfidenceValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.340: EFS Dots (DOT)**

**Description:**

A dot is a single or partial ridge unit that is shorter than local ridge width. Longer ridge units are considered standard ridges and should be marked as such, with two ridge endings. Potential dots that are substantially thinner than local ridge width should be marked as incipient ridges. A dot is marked by its center point. Elongated dots may optionally have their length marked along the longest dimension. When no dots are present, this field shall not be used. This field consists of a repeating subfield (one for each dot).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeDot

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.340\_0: EFS Dots - Subfields: Repeating sets of information items (DOT\_0)**

**Description:**

A dot is a single or partial ridge unit that is shorter than local ridge width. Longer ridge units are considered standard ridges and should be marked as such, with two ridge endings. Potential dots that are substantially thinner than local ridge width should be marked as incipient ridges. A dot is marked by its center point. Elongated dots may optionally have their length marked along the longest dimension. When no dots are present, this field shall not be used. This field consists of a repeating subfield (one for each dot).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeDot

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.340\_1: EFS Dots - Dot X Coordinate (DOX)**

**Description:**

This information item is the x coordinate of the center of the dot, expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ DOX < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDot/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.340\_2: EFS Dots - Dot Y Coordinate (DOY)**

**Description:**

This information item is the y coordinate of the center of the dot, expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ DOY < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDot/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.340\_3: EFS Dots - Dot Length (DOL)**

**Description:**

This information item is an optional information item containing the length of the dot along its longest dimension in integer units of 10 micrometers.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ DOL ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeDot

NIEM Element: biom:MinutiaeDotLengthMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.341: EFS Incipient Ridges (INR)**

**Description:**

An incipient ridge is a thin ridge, substantially thinner than local ridge width. An incipient is marked as one or more line segments, each defined with the (X, Y) endpoints along its longest dimension. An incipient ridge is marked with a line segment along its longest dimension. If the incipient is composed of a series of segments: Mark the incipient ridge as a single line when the segments of the incipient are close together or the separations between segments are indistinct. Mark the incipient ridge segments individually when they are clearly separate, with distinct lines drawn for each one. Mark the incipient ridge as a series of adjoining, unbroken line segments when it curves. When no incipient ridges are present, this field shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeIncipientRidge

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.341\_0: EFS Incipient Ridges - Subfields: Repeating sets of information items (INR\_0)**

**Description:**

An incipient ridge is a thin ridge, substantially thinner than local ridge width. An incipient is marked as one or more line segments, each defined with the (X, Y) endpoints along its longest dimension. An incipient ridge is marked with a line segment along its longest dimension. If the incipient is composed of a series of segments: Mark the incipient ridge as a single line when the segments of the incipient are close together or the separations between segments are indistinct. Mark the incipient ridge segments individually when they are clearly separate, with distinct lines drawn for each one. Mark the incipient ridge as a series of adjoining, unbroken line segments when it curves. When no incipient ridges are present, this field shall not be used.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
n/a	n/a	1	999
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeIncipientRidge

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.341\_1: EFS Incipient Ridges - X Coordinate Point 1 (X1C)**

**Description:**

This information item contains the 'x' coordinate of one endpoint, in units of 10 micrometers (0.01 mm).

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	5	1	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
N	none	n/a	0 ≤ X1C < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeIncipientRidge/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.341\_2: EFS Incipient Ridges - Y Coordinate Point 1 (Y1C)**

**Description:**

This information item contains the 'y' coordinate of one endpoint, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ Y1C < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeIncipientRidge/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.341\_3: EFS Incipient Ridges - X Coordinate Point 2 (X2C)**

**Description:**

This information item contains the 'x' coordinate of the other endpoint, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ X2C < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeIncipientRidge/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.341\_4: EFS Incipient Ridges - Y Coordinate Point 2 (Y2C)**

**Description:**

This information item contains the 'y' coordinate of the other endpoint, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ Y2C < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeIncipientRidge/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.342: EFS Creases and Linear Discontinuities (CLD)**

**Description:**

This optional field defines the permanent flexion creases, as well as linear discontinuities (minor creases, cracks, cuts, and thin or non-permanent scars). If a continuous discontinuity curves, it should be marked as a series of adjoining line segments. If a crease is feathered or composed of a series of crisscross creases, each of the short creases shall be marked separately. When no creases or linear discontinuities are present, this field shall not be used. Each segment of a crease or linear discontinuity is represented as a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFlexionCrease

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.342\_0: EFS Creases and Linear Discontinuities - Subfields: Repeating sets of information items (CLD\_0)**

**Description:**

This optional field defines the permanent flexion creases, as well as linear discontinuities (minor creases, cracks, cuts, and thin or non-permanent scars). If a continuous discontinuity curves, it should be marked as a series of adjoining line segments. If a crease is feathered or composed of a series of crisscross creases, each of the short creases shall be marked separately. When no creases or linear discontinuities are present, this field shall not be used. Each segment of a crease or linear discontinuity is represented as a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFlexionCrease

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.342\_1: EFS Creases and Linear Discontinuities - X Coordinate Point 1 (X1D)**

**Description:**

This information item shall contain the 'x' coordinate of one endpoint, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ X1D < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeFlexionCrease/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.342\_2: EFS Creases and Linear Discontinuities - Y Coordinate Point 1 (Y1D)**

**Description:**

This information item shall contain the 'y' coordinate of one endpoint, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	$0 \leq Y1D < EHI$ ; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeFlexionCrease/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.342\_3: EFS Creases and Linear Discontinuities - X Coordinate Point 2 (X2D)**

**Description:**

This information item shall contain the 'x' coordinate of the other endpoint, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	$0 \leq X2D < EWI$ ; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeFlexionCrease/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.342\_4: EFS Creases and Linear Discontinuities - Y Coordinate Point 2 (Y2D)**

**Description:**

This information item shall contain the 'y' coordinate of the other endpoint, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ Y2D < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeFlexionCrease/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.342\_5: EFS Creases and Linear Discontinuities - Type (TPD)**

**Description:**

The fifth information item (type / TPD) shall be noted using the codes from Table 58 of the ANSI/NIST-ITL 1-2011 Update: 2015 for permanent flexion creases, but is omitted for linear discontinuities. TPD may be set to RLC, PTC, DTC, WC or DPC only if any instances of Field 9.302: EFS finger - palm - plantar position/ FPP finger – palm – plantar position /FPP indicates a palm (values 20-38, 81-86). TPD may be set to DIP, PIP or PDC only if any instances of FPP indicate a finger (values 0-10, 16,17).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	1	1
Character Types	Special Characters	Format	Constraints
AN	none	n/a	TPD = DIP, PIP, PDC00-PDC10, PDC16-17, RLC, PTC, DTC, WC

Code List: EFS CREASE TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFlexionCrease

NIEM Element: biom:MinutiaeFlexionCreaseCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.343: EFS Ridge Edge Features (REF)**

**Description:**

Ridge edge features include Protrusions (abrupt increases in ridge width), Indentations (abrupt decreases in ridge width), and Discontinuities (points where a ridge stops briefly). When no ridge edges are present, this field shall not be used. Each ridge edge feature is represented as a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeEdgeOrDiscontinuity

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.343\_0: EFS Ridge Edge Features - Subfields: Repeating sets of information items (REF\_0)**

**Description:**

Ridge edge features include Protrusions (abrupt increases in ridge width), Indentations (abrupt decreases in ridge width), and Discontinuities (points where a ridge stops briefly). When no ridge edges are present, this field shall not be used. Each ridge edge feature is represented as a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeRidgeEdgeOrDiscontinuity

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.343\_1: EFS Ridge Edge Features - X Coordinate (CLX)**

**Description:**

This information item contains the 'x' coordinate of the center of the feature, in units of 10 micrometers (10 μm = 0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ CLX < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeRidgeEdgeOrDiscontinuity/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.343\_2: EFS Ridge Edge Features - Y Coordinate (CLY)**

**Description:**

This information item contains the 'y' coordinate of the center of the feature, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ CLY < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeRidgeEdgeOrDiscontinuity/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.343\_3: EFS Ridge Edge Features - Type (CLT)**

**Description:**

This information item states the type of feature: P (Protrusion), I (Indentation), or D (Discontinuity).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	CLT = P, I, or D

Code List: EFS RIDGE EDGE FEATURES TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeRidgeEdgeOrDiscontinuity

NIEM Element: biom:MinutiaeRidgeEdgeOrDiscontinuityCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.344: EFS No Pores Present (NPOR)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no pores could be discerned in the image. If the analysis process has determined that no pores could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoPoresPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.345: EFS Pores (POR)**

**Description:**

Each pore is marked by its center point. When no pores are present, this field shall not be used. Each pore is represented as a separate repeating subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaePore

XML Min/Max: 0 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.345\_0: EFS Pores - Subfields: Repeating sets of information items (POR\_0)**

**Description:**

Each pore is marked by its center point. When no pores are present, this field shall not be used. Each pore is represented as a separate repeating subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaePore

XML Min/Max: 0 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.345\_1: EFS Pores - X Coordinate (POX)**

**Description:**

This information item contains the 'x' coordinate of the center of the pore, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ POX < EWI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaePore

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.345\_2: EFS Pores - Y Coordinate (POY)**

**Description:**

This information item contains the 'y' coordinate of the center of the pore, in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ POY < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaePore

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.346: EFS No Dots Present (NDOT)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no dots are present. If the analysis process has determined that no dots could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoDotsPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.347: EFS No Incipient Ridges Present (NINR)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no incipient ridges could be discerned in the image. If the analysis process has determined that no incipient ridges could be discerned in the image, this field shall otherwise, this field will be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoIncipientRidgesPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.348: EFS No Creases Present (NCLD)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no creases could be discerned in the image. If the analysis process has determined that no creases could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoCreasesPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.349: EFS No Ridge Edge Features Present (NREF)**

**Description:**

This optional field is used to indicate whether the analysis process has determined that no ridge edge features could be discerned in the image. If the analysis process has determined that no ridge edge features could be discerned in the image, this field shall be set to Y; otherwise, this field will be omitted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	T = 1; X = 4	0	1
Character Types	Special Characters	Format	Constraints
T = A; X = AN	none	n/a	T = Y; X = 1 or true

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeNoRidgeEdgeFeaturesPresentIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.350: EFS Method of Feature Detection (MFD)**

**Description:**

This optional field states the method(s) by which the Extended Friction Ridge features were detected and/or edited. Each time fields are created or modified, the date and name of the automated algorithm or human examiner is noted in a new data entry (repeating subfield).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFeatureDetection

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.350\_0: EFS Method of Feature Detection - Subfields: Repeating sets of information items (MFD\_0)**

**Description:**

This optional field states the method(s) by which the Extended Friction Ridge features were detected and/or edited. Each time fields are created or modified, the date and name of the automated algorithm or human examiner is noted in a new data entry (repeating subfield).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFeatureDetection

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.350\_1: EFS Method of Feature Detection - Field (FIE)**

**Description:**

This information item indicates which fields correspond to the method noted: it shall contain a single field (e.g., "9.331"), a comma-separated list of fields without spaces (e.g., "9.340,9.341,9.343"), or "ALL". The allowed special characters are the comma and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	999	1	1
Character Types	Special Characters	Format	Constraints
ANS	Comma and Period	n/a	ALL or $9.300 \leq \text{value} \leq 9.373$ ; comma separated fields without a space

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFeatureDetection

NIEM Element: biom:MinutiaeFeatureDetectionFieldListText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.350\_2: EFS Method of Feature Detection - Method (FME)**

**Description:**

This information item shall state the method by which the fingerprint features were detected and encoded. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	FME = AUTO, REV, EDIT, or MAN

Code List: EFS METHOD OF FEATURE DETECTION METHOD CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFeatureDetection

NIEM Element: biom:MinutiaeFeatureDetectionMethodCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.350\_3: EFS Method of Feature Detection - Algorithm Vendor (FAV)**

**Description:**

This information item should identify the vendor of the encoding algorithm if the method is not "MAN".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFeatureDetection

NIEM Element: biom:MinutiaeAlgorithmVendorID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.350\_4: EFS Method of Feature Detection - Algorithm (FAL)**

**Description:**

This information item should identify the algorithm by name and version for methods other than "MAN".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFeatureDetection

NIEM Element: biom:MinutiaeAlgorithmID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.350\_5: EFS Method of Feature Detection - Examiner Surname (ESN)**

**Description:**

This information item should contain the surname (last name) of the fingerprint examiner, for methods other than "AUTO".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeFeatureDetection/biom:MinutiaeExaminerName

NIEM Element: nc:PersonSurName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.350\_6: EFS Method of Feature Detection - Examiner Given Name (EGN)**

**Description:**

This information item should contain the first name (given name, or first and middle names) of the fingerprint examiner for methods other than "AUTO."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeFeatureDetection/biom:MinutiaeExaminerName

NIEM Element: nc:PersonGivenName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.350\_7: EFS Method of Feature Detection - Examiner Affiliation (EAF)**

**Description:**

This information item should contain the employer or organizational affiliation of the examiner, for methods other than "AUTO".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	66	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFeatureDetection

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.350\_8: EFS Method of Feature Detection - Date and Time (EMT)**

**Description:**

This information item should contain the date and time that the determination was made, using Greenwich Mean Time (GMT).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	0	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFeatureDetection

NIEM Element: biom:MinutiaeFeatureDetectionDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.350\_9: EFS Method of Feature Detection - Notes (NTS)**

**Description:**

This information item is an optional item that may contain text with additional information regarding the detection or modification of features.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	99	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFeatureDetection

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.351: EFS Comment (COM)**

**Description:**

This optional text field contains additional information not noted in other fields. This may include unformatted text information such as location, background information, or descriptive information. If comments need to be made about specific portions of the impression, use Field 9.324: EFS distinctive features / DIS or Field 9.332: EFS minutiae ridge count algorithm / MRA.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.352: EFS Latent Processing Method (LPM)**

**Description:**

This optional text field contains one or more three-letter codes indicating the technique(s) used to process the latent fingerprint. Unprocessed impressions (latent images visible to the naked eye) shall be labeled VIS. Multiple methods should be marked by separate subfields. Methods should only be marked if they contributed substantively to the visualization of the image, and shall not be a compilation of all methods attempted.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
n/a	n/a	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
n/a	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:LatentProcessingCategoryCode

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

9.352\_0: EFS Latent Processing Method - Subfields: Repeating sets of information items (LPM\_0)

**Description:**

This optional text field contains one or more three-letter codes indicating the technique(s) used to process the latent fingerprint. Unprocessed impressions (latent images visible to the naked eye) shall be labeled VIS. Multiple methods should be marked by separate subfields. Methods should only be marked if they contributed substantively to the visualization of the image, and shall not be a compilation of all methods attempted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	9
Character Types	Special Characters	Format	Constraints
AN	none	n/a	LPM= 12I, ADX, ALS, AMB, AY7, BAR, BLE, BLP, BPA, BRY, CBB, CDS, COG, DAB, DFO, DLP, GEN, GRP, GTV, HCA, IOD< ISR, LAS, LCV, LIQ, LQD, MBD, MBP, MGP, MPD, MRM, NIN, OTH, PDV, R6G, RAM, RUV, SAO, SDB, SGF, SPR, SSP, SVN, TEC, TID, VIS, WHP, ZIC

Code List: EFS LATENT PROCESSING METHOD CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:LatentProcessingCategoryCode

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.353: EFS Examiner Analysis Assessment (EAA)**

**Description:**

This optional text field indicates an examiner’s assessment of the value of the single impression delineated by Field 9.300: EFS region of interest / ROI. See also Field 9.362: EFS examiner comparison determination / ECD for comparison determinations.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeValueAssessment

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.353\_1: EFS Examiner Analysis Assessment - Value Assessment Code (AAV)**

**Description:**

This information item indicates the value of the impression. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	8	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	AAV = VALUE, LIMITED, NOVALUE, NONPRINT

Code List: EFS EXAMINER PROCESSING METHOD VALUE ASSESSMENT CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeValueAssessment

NIEM Element: biom:MinutiaeValueAssessmentResultCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.353\_2: EFS Examiner Analysis Assessment - Examiner Last Name (ALN)**

**Description:**

This information item shall contain the surname (last name) of the fingerprint examiner.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	1	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeValueAssessment/biom:MinutiaeExaminerName

NIEM Element: nc:PersonSurName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.353\_3: EFS Examiner Analysis Assessment - Examiner First Name (AFN)**

**Description:**

This information item shall contain the first name (given name, or first and middle names) of the fingerprint examiner.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	1	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:MinutiaeValueAssessment/biom:MinutiaeExaminerName

NIEM Element: nc:PersonGivenName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.353\_4: EFS Examiner Analysis Assessment - Examiner Affiliation (AAF)**

**Description:**

This information item shall contain the employer or organizational affiliation of the examiner.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	99	1	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeValueAssessment

NIEM Element: nc:OrganizationName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.353\_5: EFS Examiner Analysis Assessment - Date and Time (GMT) (AMT)**

**Description:**

This information item shall contain the date and time that the determination was made, using Greenwich Mean Time (GMT).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	none	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeValueAssessment

NIEM Element: biom:MinutiaeValueAssessmentDateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.353\_6: EFS Examiner Analysis Assessment - Comment (ACM)**

**Description:**

This information item is optional and contains additional clarifying information for the examiner analysis assessment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeValueAssessment

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.353\_7: EFS Examiner Analysis Assessment - Analysis Complexity Flag (CXF)**

**Description:**

This information item is optional and is only used when the examiner determines that the analysis was complex as defined in "Standards for examining friction ridge impressions and resulting conclusions." In that case, an entry of "COMPLEX" is made. This decision is based on the available quality of features, low specificity of features, significant distortion, or disagreement among examiners. This information item is included for use in quality assurance / quality control processes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
7	7	0	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	CXF = COMPLEX

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeValueAssessment

NIEM Element: biom:MinutiaeAnalysisComplexityCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.354: EFS Evidence of Fraud (EOF)**

**Description:**

This text field indicates that there is basis for determination that the image may be fraudulent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFraudEvidence

XML Min/Max: 0 / 4

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.354\_0: EFS Evidence of Fraud - Subfields: Repeating sets of information items (EOF\_0)**

**Description:**

This text field indicates that there is basis for determination that the image may be fraudulent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	4
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFraudEvidence

XML Min/Max: 0 / 4

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.354\_1: EFS Evidence of Fraud - Fraud Type (FRA)**

**Description:**

This information item indicates the potential type of fraud attempted as determined from the impression. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	FRA = EVA, SPO, FOR, or FAB

Code List: EFS EVIDENCE OF FRAUD TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFraudEvidence

NIEM Element: biom:MinutiaeFraudEvidenceCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.354\_2: EFS Evidence of Fraud - Comment (CFD)**

**Description:**

This information item is optional and contains text that provides clarifying information regarding the assessment of potential evidence of fraud.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeFraudEvidence

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.355: EFS Latent Substrate (LSB)**

**Description:**

This field is used to define the substrate, or surface on which the friction ridge impression was deposited. If multiple substrates are present, they are represented by separate subfields.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeLatentSubstrate

XML Min/Max: 0 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.355\_0: EFS Latent Substrate - Subfields: Repeating sets of information items (LSB\_0)**

**Description:**

This field is used to define the substrate, or surface on which the friction ridge impression was deposited. If multiple substrates are present, they are represented by separate subfields.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	3
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeLatentSubstrate

XML Min/Max: 0 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.355\_1: EFS Latent Substrate - Code (CLS)**

**Description:**

This information item indicates the type of substrate. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
AN	none	n/a	CLS = 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2I, 3A, 3B, 3C, 3D, 3E, 3F, 3G, 4A, or 4B

Code List: EFS LATENT SUBSTRATE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeLatentSubstrate

NIEM Element: biom:MinutiaeLatentSubstrateCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.355\_2: EFS Latent Substrate - Object / Substrate Description (OSD)**

**Description:**

This information item is optional and may contain text that describes the object or surface on which the print was deposited, or provides clarifying information regarding the substrate. An example is "Neck of green glass beer bottle".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeLatentSubstrate

NIEM Element: biom:MinutiaeLatentSubstrateDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.356: EFS Latent Matrix (LMT)**

**Description:**

This field is used to define the matrix, or substance deposited by the finger that forms the impression. Each latent matrix is represented by a separate data entry (repeating subfield).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeLatentMatrix

XML Min/Max: 0 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.356\_0: EFS Latent Matrix - Subfields: Repeating sets of information items (LMT\_0)**

**Description:**

This field is used to define the matrix, or substance deposited by the finger that forms the impression. Each latent matrix is represented by a separate data entry (repeating subfield).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	3
Character Types	Special Characters	Format	Constraints
n/a	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeLatentMatrix

XML Min/Max: 0 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.356\_1: EFS Latent Matrix - Code (TOM)**

**Description:**

This information item is mandatory and indicates the type of matrix. All visible contaminants are apparent rather than necessarily known to certainty: for example, the substrate may be marked as blood if it appears to be blood; if known for certain that should be indicated as a comment. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ TOM ≤ 10; non-negative integer

Code List: EFS LATENT MATRIX CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeLatentMatrix

NIEM Element: biom:MinutiaeLatentMatrixCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.356\_2: EFS Latent Matrix - Comment (CLA)**

**Description:**

This information item is optional and may contain text that provides clarifying information regarding the matrix.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeLatentMatrix

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.357: EFS Local Quality Issues (LQI)**

**Description:**

This optional field is used to define one or more areas containing quality or transfer issues that indicate that the anatomical friction ridge features may not have been accurately represented in the image. Each area with local quality issues is represented as a separate repeating subfield. The problems noted in this field apply to the specific impression under consideration; anatomical features of the friction skin itself (such as scars) are noted in ( Field 9.324: EFS distinctive features / DIS).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1

Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeLocalQualityIssues

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.357\_0: EFS Local Quality Issues - Subfields: Repeating sets of information items (LQI\_0)**

**Description:**

This optional field is used to define one or more areas containing quality or transfer issues that indicate that the anatomical friction ridge features may not have been accurately represented in the image. Each area with local quality issues is represented as a separate repeating subfield. The problems noted in this field apply to the specific impression under consideration; anatomical features of the friction skin itself (such as scars) are noted in ( Field 9.324: EFS distinctive features / DIS).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*

Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeLocalQualityIssues

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.357\_1: EFS Local Quality Issues - Type (LQT)**

**Description:**

This information item is the type of quality issue. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	10	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	LQT = ARTIFACT, BACKGROUND, COMPRESSED, DISTORT, NEGATIVE, OVERDEV, OVERLAP, SMEAR, STRETCHED, TAPE, OTHER

Code List: EFS QUALITY ISSUE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeLocalQualityIssues

NIEM Element: biom:MinutiaeLocalQualityIssuesCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.357\_2: EFS Local Quality Issues - Polygon (LQP)**

**Description:**

This information item is a closed path outlining the area of the quality issue. In Traditional encoding, the two special characters allowed are hyphen and comma. These special characters are not used in XML Encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	99
Character Types	Special Characters	Format	Constraints
NS	Minus Sign and Comma	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeLocalQualityIssues/biom:ImageSegmentPolygon

NIEM Element: biom:PositionPolygonVertex

XML Min/Max: 3 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.357\_3: EFS Local Quality Issues - Comment (LQC)**

**Description:**

This information item is optional and may contain text describing the quality issue.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeLocalQualityIssues

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.360: EFS Area of Correspondence (AOC)**

**Description:**

This field is to be used only when two or more images contained in a single EBTS transaction are compared as candidates for individualization (potential mates). The area of correspondence is a polygon enclosing the region of usable ridge detail present in both images being compared. If the corresponding areas are discontinuous, more than one area of correspondence may be defined for a pair of images, each in a separate subfield. One Type-9 record may have multiple AOCs defined that correspond to different images, as shown in Figure 11, each in a separate repeating subfield. Figure 11 shows the interrelationships of the IDCs and AOCs for three different Type-9 records in a single transaction. Note that the AOC in a given Type-9 record contains an IDC reference for one or more other Type-9 record in a transaction. For example, a latent could have areas of correspondence with both the rolled and plain exemplars from one subject, or a latent could have areas of correspondence with candidate exemplars from two different subjects. If two prints overlap but neither encloses the area of the other (such as shown in Figure 11 of the ANSI/NIST-ITL 1-2011 Update: 2015, the AOC shall be marked for both prints. If the area of a small print is completely enclosed by the area of a larger print so that the AOC for the small print is identical to the ROI, the AOC may be omitted for the smaller print.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageAreaOfCorrespondence

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.360\_0: EFS Area of Correspondence - Subfields: Repeating sets of information items (AOC\_0)**

**Description:**

This field is to be used only when two or more images contained in a single EBTS transaction are compared as candidates for individualization (potential mates). The area of correspondence is a polygon enclosing the region of usable ridge detail present in both images being compared. If the corresponding areas are discontinuous, more than one area of correspondence may be defined for a pair of images, each in a separate subfield. One Type-9 record may have multiple AOCs defined that correspond to different images, as shown in Figure 11, each in a separate repeating subfield. Figure 11 shows the interrelationships of the IDCs and AOCs for three different Type-9 records in a single transaction. Note that the AOC in a given Type-9 record contains an IDC reference for one or more other Type-9 record in a transaction. For example, a latent could have areas of correspondence with both the rolled and plain exemplars from one subject, or a latent could have areas of correspondence with candidate exemplars from two different subjects. If two prints overlap but neither encloses the area of the other (such as shown in Figure 11 of the ANSI/NIST-ITL 1-2011 Update: 2015, the AOC shall be marked for both prints. If the area of a small print is completely enclosed by the area of a larger print so that the AOC for the small print is identical to the ROI, the AOC may be omitted for the smaller print.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageAreaOfCorrespondence

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.360\_1: EFS Area of Correspondence - IDC Reference (CIR)**

**Description:**

This information item indicates the IDC for the target image / Type-9 record for a given AOC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ CIR ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageAreaOfCorrespondence

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.360\_2: EFS Area of Correspondence - Polygon (Closed Path) (AOP)**

**Description:**

This information item defines the outline of the corresponding area. It is a closed path. In Traditional encoding, the two special characters allowed are hyphen and comma. These special characters are not used in XML Encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	99
Character Types	Special Characters	Format	Constraints
NS	Minus Sign and Comma	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageAreaOfCorrespondence/biom:ImageSegmentPolygon

NIEM Element: biom:PositionPolygonVertex

XML Min/Max: 3 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.360\_3: EFS Area of Correspondence - Comment (CAC)**

**Description:**

This information item is optional and allows a free text comment or description related to the AOC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:FrictionRidgeImageAreaOfCorrespondence

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.361: EFS Corresponding Points or Features (CPF)**

**Description:**

This optional field is used to label points or features for comparison of the current feature set with other Type-9 feature sets in a transaction. This field is to be used only when two or more images contained in a single transaction are compared, either as candidates for individualization (potential mates), or for annotating reasons for exclusion. For each of the images being compared, specific points or features are marked in each of the Type-9 records, with correspondence indicated by the use of the same label, each in a separate data entry (repeating subfield). Labels within a single Type-9 record shall be unique. For example, if a transaction contains one latent and multiple candidate exemplars, a feature labeled "A" in the latent's Type-9 feature set corresponds with the feature labeled "A" (if present) in all of the exemplar Type-9 feature sets. Corresponding Points or Features may refer to arbitrary points, or may refer to predefined features. The features include point features (such as minutiae, dots, or pores), but also may refer to areas (such as distinctive characteristics), lines (incipient ridges or creases), or paths (ridge path segments). Arbitrary points may be used to indicate characteristics that were not noted during analysis, or to indicate points in an exemplar that was not previously marked up.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFeatureCorrespondence

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.361\_0: EFS Corresponding Points or Features - Subfields: Repeating sets of information items (CPF\_0)**

**Description:**

This optional field is used to label points or features for comparison of the current feature set with other Type-9 feature sets in a transaction. This field is to be used only when two or more images contained in a single transaction are compared, either as candidates for individualization (potential mates), or for annotating reasons for exclusion. For each of the images being compared, specific points or features are marked in each of the Type-9 records, with correspondence indicated by the use of the same label, each in a separate data entry (repeating subfield). Labels within a single Type-9 record shall be unique. For example, if a transaction contains one latent and multiple candidate exemplars, a feature labeled "A" in the latent's Type-9 feature set corresponds with the feature labeled "A" (if present) in all of the exemplar Type-9 feature sets. Corresponding Points or Features may refer to arbitrary points, or may refer to predefined features. The features include point features (such as minutiae, dots, or pores), but also may refer to areas (such as distinctive characteristics), lines (incipient ridges or creases), or paths (ridge path segments). Arbitrary points may be used to indicate characteristics that were not noted during analysis, or to indicate points in an exemplar that was not previously marked up.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeFeatureCorrespondence

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.361\_1: EFS Corresponding Points or Features - Label (COL)**

**Description:**

This information item is a mandatory 1-3 character alphanumeric label that is used to indicate correspondence between CPFs in different Type-9 records. The label names may be selected and assigned at the discretion of the system or the examiner. Labels within a single Type-9 record shall be unique. Note that the use of a given label in one Type-9 record means that that point or feature corresponds with any or all other features with the same label in other Type-9 records in the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
AN	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFeatureCorrespondence

NIEM Element: biom:FeatureLabelID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.361\_2: EFS Corresponding Points or Features - Type of Correspondence (TOC)**

**Description:**

This information item is a mandatory 1- or 2-character information item (code) used to indicate the type of correspondence or non-correspondence. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	TOC = F, P, DF, DP, X, R, or U

Code List: EFS TYPE OF CORRESPONDENCE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFeatureCorrespondence

NIEM Element: biom:MinutiaeFeatureCorrespondenceCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.361\_3: EFS Corresponding Points or Features - Corresponding Field Number (CFN)**

**Description:**

This information item is conditional, used only if TOC = F or DF. The Field Number information item indicates the type of field being compared, and shall correspond to the "Field Number." This is the Type-9 field number of the compared field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	CFN = 320, 321, 324, 331, 340, 341, 342, 343, 345, 373

Code List: EFS CORRESPONDING FIELD NUMBER CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFeatureCorrespondence

NIEM Element: biom:CorrespondingSubfieldID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.361\_4: EFS Corresponding Points or Features - Corresponding Field Occurance (FOC)**

**Description:**

This information item is conditional, used only if TOC = F or DF. This information item indicates which repeating subfield of the specified field the label is applied to. Note that this is a 1-based index, not a 0-based index. Occurrences are numbered starting with 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ FOC ≤ 999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFeatureCorrespondence

NIEM Element: biom:MinutiaeFeatureCategoryCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.361\_5: EFS Corresponding Points or Features - Corresponding X Coordinate (CXC)**

**Description:**

This information item is mandatory if TOC = P or DP and is optional if TOC = X. It is expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ QXC < EW1; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFeatureCorrespondence/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.361\_6: EFS Corresponding Points or Features - Corresponding Y Coordinate (CYC)**

**Description:**

This information item is mandatory if TOC = P or DP and is optional if TOC = X. It is expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ QYC < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFeatureCorrespondence/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.361\_7: EFS Corresponding Points or Features - Comment (COC)**

**Description:**

This information item is optional and may contain a text comment or description related to the CPF.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeFeatureCorrespondence

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.362: EFS Examiner Comparison Determination (ECD)**

**Description:**

This optional text field indicates an examiner’s determination based on analysis and comparison of two specified friction ridge images. If multiple examiners’ determinations are represented, each is contained separately in a repeating subfield. Comparison determinations against multiple impressions in the same transaction are specified in a separate subfield with distinct IDC references. Each subfield consists of at least seven information items. The eighth and ninth information items are optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeExaminerComparisonDetermination

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.362\_0: EFS Examiner Comparison Determination - Subfields: Repeating sets of information items (ECD\_0)**

**Description:**

This optional text field indicates an examiner’s determination based on analysis and comparison of two specified friction ridge images. If multiple examiners’ determinations are represented, each is contained separately in a repeating subfield. Comparison determinations against multiple impressions in the same transaction are specified in a separate subfield with distinct IDC references. Each subfield consists of at least seven information items. The eighth and ninth information items are optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:MinutiaeExaminerComparisonDetermination

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.362\_1: EFS Examiner Comparison Determination - IDC Reference (EDC)**

**Description:**

This information item indicates the target image for a given determination, and is used in the same way as the IDC in Field 9.360: EFS area of correspondence / AOC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ EDC ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeExaminerComparisonDetermination

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.362\_2: EFS Examiner Comparison Determination - Determination (EDE)**

**Description:**

This information item indicates a comparison conclusion. The allowed special character is the underscore. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	6	1	1
Character Types	Special Characters	Format	Constraints
AS	none	n/a	EDE = INDIV, INC_1, INC_C, INC_D, INC_N, EX_SRC, EX_SUB, NONE

Code List: EFS EXAMINER COMPARISON DETERMINATION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeExaminerComparisonDetermination

NIEM Element: biom:MinutiaeExaminerComparisonDeterminationResultCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.362\_3: EFS Examiner Comparison Determination - Work In Progress (WIP)**

**Description:**

This information item is set to "PRELIMINARY" (default) or "FINAL". For a determination to be accepted for further processing, the status shall be set to "FINAL". The purpose of this is to allow saving work in progress.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	11	1	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	WIP = PRELIMINARY or FINAL

Code List: EFS EXAMINER COMPARISON DETERMINATION WORK IN PROGRESS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeExaminerComparisonDetermination

NIEM Element: biom:MinutiaeExaminerProgressCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.362\_4: EFS Examiner Comparison Determination - Examiner Last Name (ELN)**

**Description:**

This information item is the surname (last name) of the fingerprint examiner.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	1	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeExaminerComparisonDetermination/biom:MinutiaeExaminerName

NIEM Element: nc:PersonSurName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.362\_5: EFS Examiner Comparison Determination - Examiner First Name (EFN)**

**Description:**

This information item is the given name (first name or first and middle names) of the fingerprint examiner.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	40	1	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent:

itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeExaminerComparisonDetermination/biom:MinutiaeExaminerName

NIEM Element: nc:PersonGivenName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.362\_6: EFS Examiner Comparison Determination - Examiner Affiliation (EAF)**

**Description:**

This information item is the employer or organizational affiliation of the examiner.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	99	1	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeExaminerComparisonDetermination

NIEM Element: nc:OrganizationName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.362\_7: EFS Examiner Comparison Determination - Date and Time (GMT) (DTG)**

**Description:**

This information item is the date and time that the determination was made, in terms of Greenwich Mean Time units.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	none	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeExaminerComparisonDetermination

NIEM Element: biom:MinutiaeExaminerComparisonDeterminationDateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.362\_8: EFS Examiner Comparison Determination - Comment (CZZ)**

**Description:**

This information item is optional and may contain text that provides clarifying or qualifying information regarding the comparison determination.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeExaminerComparisonDetermination

NIEM Element: biom:MinutiaeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.362\_9: EFS Examiner Comparison Determination - Complex Comparison Flag (CCF)**

**Description:**

This information item is optional. It is only used when the examiner determines that the comparison was complex as defined in "Standards for examining friction ridge impressions and resulting conclusions," based on the available quality and quantity of features, low specificity of features, significant distortion, or disagreement among examiners. In such case, the value shall be set to 'COMPLEX'. This information item is included for use in quality assurance/quality control processes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
7	7	0	1
Character Types	Special Characters	Format	Constraints
A	none	n/a	CCF = COMPLEX

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:MinutiaeExaminerComparisonDetermination

NIEM Element: biom:MinutiaeComparisonComplexityCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.363: EFS Relative Rotation of Corresponding Print (RRC)**

**Description:**

This optional field may be used when two or more images contained in a single EBTS transaction are compared. This field indicates the relative overall rotation necessary for the prints to be compared. Each subfield consists of 2 information items. The number of subfields is limited only by the number of Type-9 records in the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageRelativeRotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.363\_0: EFS Relative Rotation of Corresponding Print - Subfields: Repeating sets of information items (RRC\_0)**

**Description:**

This optional field may be used when two or more images contained in a single EBTS transaction are compared. This field indicates the relative overall rotation necessary for the prints to be compared. Each subfield consists of 2 information items. The number of subfields is limited only by the number of Type-9 records in the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeImageRelativeRotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.363\_1: EFS Relative Rotation of Corresponding Print - Rotation IDC Reference (RIR)**

**Description:**

This information item indicates the IDC for the Type-9 record associated with the target image/ Type-9 record for a given RRC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ RIR ≤ 99; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FrictionRidgeImageRelativeRotation

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.363\_2: EFS Relative Rotation of Corresponding Print - Relative Overall Rotation (ROR)**

**Description:**

This information item defines the integer the number of Type-9 records in the transaction. number of degrees that the target image and/or features referenced by RIR shall be rotated to correspond to the data in this Type-9 record. Positive numbers indicate degrees counterclockwise; negative numbers indicate degrees clockwise: (-179 to 180 inclusive). The allowed special character is the negative sign.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign	n/a	-179 ≤ ROR ≤ 180; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:FrictionRidgeImageRelativeRotation

NIEM Element: biom:ImageRelativeOverallRotationValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.372: EFS Skeletonized Image (SIM)**

**Description:**

This optional field contains a skeletonized image, also known as a ridge tracing, which reduces the friction ridge impression to an image with thinned representations of each ridge. Incipient ridges, dots, ridge discontinuities, and protrusions are not in the skeleton. The skeletonized image is a 2-tone image with a white background and a black single-pixelwide thinned representation of each ridge. Each black pixel may have 1, 2, or 3 neighboring black pixels; other values (0, 4-8) are errors. The same information may alternatively be represented using Field 9.373: EFS ridge path segments / RPS. Field 9.373: EFS ridge path segments / RPS. The skeletonized image is stored as a 1-bit grayscale PNG compressed image, bit-packed 6 bits per character using Base-64 representation. The entire PNG formatted image is included as a single data entry / information item. Interlacing, alpha transparency, and color palettes shall not be used. The skeletonized image's dimensions shall be identical width and height of the ROI (See Field 9.300: EFS region of interest / ROI). The resolution of the skeletonized image shall be the same as the original image, and shall be set in the PNG header.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
8	*	0	1
Character Types	Special Characters	Format	Constraints
Base 64	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:FrictionRidgeSkeletonizedImageBinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.373: EFS Ridge Path Segments (RPS)**

**Description:**

This optional field contains an alternate representation of the same skeletonized image data contained in Field 9.372: EFS skeletonized image / SIM. Each ridge path segment is saved as an open path (ordered set of vertices). Multiple segments may be included in this field. Incipient ridges, dots, ridge discontinuities, and protrusions are not included in the ridge path representation. Each skeletonized ridge segment is stored as a separate subfield. Each endpoint of a ridge segment is either shared by three ridge segments (at a bifurcation) or is unique to a single ridge segment (at a ridge ending). Each ridge path segment (if completely visible) is the portion of a ridge that connects two minutiae, so each ridge path segment starts and stops either where the ridge intersects another ridge path segment (a bifurcation) or ends (a ridge ending). In the infrequent case in which a ridge segment forms a complete loop back on itself without intersecting another ridge segment (such as near the core of some plain whorls or central pocket loops), the ridge path starts and stops at a single arbitrary point on the ridge. Ridge path segments may not be visible over their entire length due to image consistency-of-presentation problems or due to being truncated by the edge of the impression, and therefore one or both ends of a ridge segment may not end at points defined as minutiae.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
n/a	n/a	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeImageRidgePath

NIEM Element: biom:MinutiaeRidgePathSegment

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.373\_0: EFS Ridge Path Segments - Subfields: Repeating sets of information items (RPS\_0)**

**Description:**

This optional field contains an alternate representation of the same skeletonized image data contained in Field 9.372: EFS skeletonized image / SIM. Each ridge path segment is saved as an open path (ordered set of vertices). Multiple segments may be included in this field. Incipient ridges, dots, ridge discontinuities, and protrusions are not included in the ridge path representation. Each skeletonized ridge segment is stored as a separate subfield. Each endpoint of a ridge segment is either shared by three ridge segments (at a bifurcation) or is unique to a single ridge segment (at a ridge ending). Each ridge path segment (if completely visible) is the portion of a ridge that connects two minutiae, so each ridge path segment starts and stops either where the ridge intersects another ridge path segment (a bifurcation) or ends (a ridge ending). In the infrequent case in which a ridge segment forms a complete loop back on itself without intersecting another ridge segment (such as near the core of some plain whorls or central pocket loops), the ridge path starts and stops at a single arbitrary point on the ridge. Ridge path segments may not be visible over their entire length due to image consistency-of-presentation problems or due to being truncated by the edge of the impression, and therefore one or both ends of a ridge segment may not end at points defined as minutiae.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	*
Character Types	Special Characters	Format	Constraints
NS	Comma and Dash	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:MinutiaeImageRidgePath

NIEM Element: biom:MinutiaeRidgePathSegment

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.380: EFS Temporary Lines (TPL)**

**Description:**

This field is used by a latent examiner to annotate a friction ridge image with temporary lines, generally for use as reference points in making a comparison. These lines are solely for the individual examiner's use and reference – there are no implied semantics through the use of this field. This field has subfields, each of which describes a line segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSTemporaryLine

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.380\_0: EFS Temporary Lines - Subfields: Repeating sets of information items (TPL\_0)**

**Description:**

This field is used by a latent examiner to annotate a friction ridge image with temporary lines, generally for use as reference points in making a comparison. These lines are solely for the individual examiner's use and reference – there are no implied semantics through the use of this field. This field has subfields, each of which describes a line segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSTemporaryLine

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.380\_1: EFS Temporary Lines - X Coordinate Point A (TXA)**

**Description:**

This information item is expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ TXA < EWII; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:EFSTemporaryLine/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.380\_2: EFS Temporary Lines - Y Coordinate Point A (TYA)**

**Description:**

This information item is expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ TYA < EHI; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:EFSTemporaryLine/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.380\_3: EFS Temporary Lines - X Coordinate Point B (TXB)**

**Description:**

This information item is expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ TXB < EWII; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/  
biom:EFSTemporaryLine/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.380\_4: EFS Temporary Lines - Y Coordinate Point B (TYB)**

**Description:**

This information item is expressed in units of 10 micrometers (0.01 mm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	0 ≤ TYB < EHII; non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:EFSTemporaryLine/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.380\_5: EFS Temporary Lines - Line Color (TLC)**

**Description:**

This information item is an RGB color value expressed as a hexadecimal number. There shall be a total of 6 hexadecimal characters, with leading zeros where applicable.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	1	1
Character Types	Special Characters	Format	Constraints
H	none	n/a	000000 ≤ TLC ≤ FFFFFFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:EFSTemporaryLine

NIEM Element: biom:FeatureLineColorValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.380\_6: EFS Temporary Lines - Line Thickness (TLT)**

**Description:**

This information item is expressed as a positive integer. Thickness is expressed in units of 0.01 mm. Any value from and including 1 through and including 99 is acceptable; suggested values are 3 (thin); 6 (medium); 9 (thick), and 15 (bold).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ TLT ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/biom:EFSTemporaryLine

NIEM Element: biom:FeatureLineThicknessValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.381: EFS Feature Color and Comment (FCC)**

**Description:**

This field enables a latent print examiner to annotate individual features with color for display and / or comment. It consists of multiple subfields, each containing four information items. The first two information items are mandatory. One or both of the third or fourth information items shall be present in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSFeatureColor

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Extended Feature Set)

**9.381\_0: EFS Feature Color and Comment - Subfields: Repeating sets of information items (FCC\_0)**

**Description:**

This field enables a latent print examiner to annotate individual features with color for display and / or comment. It consists of multiple subfields, each containing four information items. The first two information items are mandatory. One or both of the third or fourth information items shall be present in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	999
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae

NIEM Element: biom:EFSFeatureColor

XML Min/Max: 0 / 999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.381\_1: EFS Feature Color and Comment - Feature - Field Number (FTF)**

**Description:**

This information item indicates the field which is annotated with color for display and/or comment. See Look Up Codes for valid values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	FTF = 320, 321, 324, 331, 340, 341, 342, 343, 345, 373

Code List: EFS CORRESPONDING FIELD NUMBER CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSFeatureColor

NIEM Element: biom:FeatureColorFieldReferencedCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.381\_2: EFS Feature Color and Comment - Feature - Field Occurrence (FTO)**

**Description:**

This information item indicates which repeating subfield of the specified field the label is applied to. Occurrences are numbered starting with 1 (1-based index, not a 0-based index).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	none	n/a	1 ≤ FTO ≤ 999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSFeatureColor

NIEM Element: biom:FeatureColorFieldOccurrenceReferencedValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.381\_3: EFS Feature Color and Comment - Feature - Color (FTC)**

**Description:**

This information item is an RGB color value expressed as a hexadecimal number. There shall be a total of 6 hexadecimal characters, with leading zeros where applicable.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	6	0	1
Character Types	Special Characters	Format	Constraints
H	none	n/a	000000 ≤ TLC ≤ FFFFFFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSFeatureColor

NIEM Element: biom:FeatureColorHexidecimalValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Extended Feature Set)

**9.381\_4: EFS Feature Color and Comment - Feature - Comment (COM)**

**Description:**

This information item allows a free text comment or description to be provided by the examiner about the referenced field and subfield in this instance of a Type-9 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	none	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ExtendedFeatureSetMinutiae/ biom:EFSFeatureColor

NIEM Element: biom:FeatureColorCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**9.901: Universal Latent Annotation (ULA)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with the FBI-developed Universal Latent Workstation (ULW) or compatible software. If present, this text field shall consist of one or more entries, each with up to 300 characters that describe a single processing step. Each entry shall begin with the date and time followed by a hyphen encoded as: "{M}M/{D}D/YYYY {h}h:mm:ss {AM|PM} - ". The remainder of the entry shall contain an unformatted text string describing a process or procedure applied to the fingerprint, palmprint, or plantar print associated with this Type-9 record. Additional entries may be included, each describing a subsequent processing step.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord

NIEM Element: biom:MinutiaeUniversalLatentWorkstationAnnotationText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Common)

**9.901\_0: Universal Latent Annotation - Subfields: Repeating sets of information items (ULA\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with the FBI-developed Universal Latent Workstation (ULW) or compatible software. If present, this text field shall consist of one or more entries, each with up to 300 characters that describe a single processing step. Each entry shall begin with the date and time followed by a hyphen encoded as: "{M}M/{D}D/YYYY {h}h:mm:ss {AM|PM} - ". The remainder of the entry shall contain an unformatted text string describing a process or procedure applied to the fingerprint, palmprint, or plantar print associated with this Type-9 record. Additional entries may be included, each describing a subsequent processing step.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
22	300	1	*
Character Types	Special Characters	Format	Constraints
ANS	none	{M}M/{D}D/YYYY {h}h:mm:ss {AM PM} - <free form text>	Date concatenated with text

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord

NIEM Element: biom:MinutiaeUniversalLatentWorkstationAnnotationText

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.902: Annotated Information (ANN)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Common)

**9.902\_0: Annotated Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:ZuluDateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Common)

**9.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Common)

**9.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-9 record.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
1	*	1	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.903: Device Unique Identifier (DUI)**

**Description:**

The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of the following: a Host PC MAC address (identified by the first character "M"), a Host PC processor ID (identified by the first character "P").

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
13	16	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
ANS	Any	n/a	First character = M or P

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:CaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-9 Minutiae Data Record (Common)

**9.904: Make/Model/Serial Number (MMS)**

**Description:**

The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Unknown information may be indicated with the value "0." Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: biom:BiometricCapture

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.904\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	"0" = Unknown

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:CaptureDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-9 Minutiae Data Record (Common)

**9.904\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	"0" = Unknown

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:CaptureDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**9.904\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	"0" = Unknown

Source: ANSI/NIST ITL 1-2011 Update: 2015 (Type-9)

Status: Active

XML Parent: itl:PackageMinutiaeRecord/biom:CaptureDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.001: Record Header**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content / CNT and shall be used to relate information items. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 <= IDC <= 99; integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.003: Image Type (IMT)**

**Description:**

Indicate the type of image contained in the Type-10 record. Note that patterned injuries may be on any part of the body. Patterned injuries are not treated as a separate image type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	11	1	1
Character Types	Special Characters	Format	Constraints
AS	Blank, Hyphen	n/a	see Look Up Codes

Code List: TYPE 10 IMAGE TYPES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:ImageCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.004: Source Agency (SRC)**

**Description:**

This is the identifier of the agency that actually created the record and supplied the information contained in it.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/  
biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.005: Photo Capture Date (PHD)**

**Description:**

This mandatory field shall contain the date that the image contained in the record was captured.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on encoding	Dependent on encoding	1	1
Character Types	Special Characters	Format	Constraints
N	None	YYYYMMDD	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/ biom:ImageCaptureDetail

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.006: Horizontal Line Length (HLL)**

**Description:**

HLL defines the number of pixels contained on a single horizontal line of the image. The maximum horizontal size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. The total image size (HLL times VLL) must be able to be accommodated in Field xx.001 for Traditional encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 <= HLL <= 99999; positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:HorizontalLineLengthPixelQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.007: Vertical Line Length (VLL)**

**Description:**

VLL defines the number of horizontal lines contained in the image. The maximum vertical size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 <= HLL <= 99999; positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:ImageVerticalLineLengthPixelQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.008: Scale Units (SLC)**

**Description:**

The image sampling frequency (pixel density). A value of "1" shall indicate pixels per inch. A value of "2" shall indicate pixels per centimeter. A value of "0" in this field indicates that no scale is provided, and the quotient of THPS/TVPS shall provide the pixel aspect ratio.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 <= SLC <= 2; integer

Code List: SCALE UNIT CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:ImageScaleUnitsCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.009: Transmitted Horizontal Pixel Scale (THPS)**

**Description:**

This is the integer pixel density used in the horizontal direction of the image if SLC has a value of “1” or “2”. If SLC has a value of “0”, this information item shall contain the horizontal component of the pixel aspect ratio, up to 5 integer digits. For example, if the SLC value = 1, then the value of THPS could be ‘1000’ for a 1000 ppi sensor. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:ImageHorizontalPixelDensityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.010: Transmitted Vertical Pixel Scale (TVPS)**

**Description:**

This is the integer pixel density used in the vertical direction of the image if SLC has a value of “1” or “2”. If SLC has a value of “0”, this information item shall contain the vertical component of the pixel aspect ratio, up to 5 integer digits. If SLC is 1 or 2, then TVPS shall equal THPS. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding up at .5 should be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:ImageVerticalPixelDensityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.011: Compression Algorithm (CGA)**

**Description:**

This is a mandatory field. It shall specify the algorithm used to compress the transmitted color or grayscale images. For those images that are to be compressed, the method for the compression of facial and SMT images is specified by the baseline mode of the JPEG, JPEG 2000, or PNG algorithms. When Record Type-10 contains a facial image, the conditions described in ANSI NIST 2011: Update 2011 Annex E: E.6.1 Compression algorithm apply. For non-facial images contained in Record Type-10, Field 10.011: Compression algorithm / CGA may be set to any value in the COMPRESSION Code List except WSQ20. WSQ is not supported. The image shall be represented as an array of n rows by m columns by at least 8-bit pixels. Each pixel in a monochrome image shall be represented by eight or more bits. Color images shall be represented as a series of sequential samples of a red, green, and blue intensity for each pixel. The image shall be organized in row-major order, with the lowest address corresponding to the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	1	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	

Code List: COMPRESSION CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:ImageCompressionAlgorithmCodeType

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.012: Color Space (CSP)**

**Description:**

Scanned images shall consist of nominal 24 to 48-bit RGB pixels. Color image data may be transmitted in either compressed or uncompressed form in certain record types. The transmission of uncompressed color images shall consist of RGB pixels, each component of which shall be quantized to at least 256 levels (8 bits). Grayscale image data may be transmitted in either compressed or uncompressed form. The transmission of uncompressed grayscale images shall consist of pixels, each of which shall normally be quantized to eight bits (256 gray levels) and held in a single unsigned byte. Black and white (binary representation) image data may be transmitted in either compressed or uncompressed form. The uncompressed binary images shall consist of pixels, each of which shall be quantized to one of two levels (binary representation). A value of zero shall be used to represent a white pixel and a value of one shall be used to represent a black pixel. See ANSI/NIST ITL 1-2011, section on Color, black-and-white, and grayscale image requirements for detail. To ensure that color images exchanged between differing systems can be correctly displayed or printed, images should be converted to the device-independent color space, sRGB, before compression or transmission to another system.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	see Look Up Codes

Code List: COLOR SPACE CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:ImageColorSpaceCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.013: Subject Acquisition Profile (SAP)**

**Description:**

To provide a general description of the criteria under which the facial image was captured. Typically, the higher the value, the stronger the acquisition requirements become. Therefore, in the text below, the SAP value will also be denoted as a "level". The Subject Acquisition Profile (SAP) is a mandatory ASCII text field when [Type-10 Image Type field 10.003] contains "FACE".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	see Look Up Codes

Code List: SUBJECT ACQUISITION PROFILES - FACE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageAcquisitionProfileCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.014: Face Image Bounding Box Coordinates in Full Image (FIP)**

**Description:**

If the face image (IMT='FACE') contains more than one face, or is not cropped to a "head only" or "head and shoulders" composition, this optional field contains offsets to the location of the bounding box of the face of the subject within a larger image. This field is only appropriate for images that do not comply with SAP Levels 30, 32, 40, 42, 50, 51 or 52, because those images shall be cropped to a "head only" or "head and shoulders" composition. If the image contains more than one face, the bounding box indicates the face of interest; all associated Type-10 fields are limited to the face defined by the bounding box in the larger image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageBoundingSquare

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.014\_1: Face Image Bounding Box Coordinates in Full Image - Left Horizontal Coordinate Value (LHC)**

**Description:**

It is the horizontal offset in pixels to the left edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < LHC < HLL

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/ biom:FacelImageBoundingSquare

NIEM Element: biom:SegmentRightHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.014\_2: Face Image Bounding Box Coordinates in Full Image - Right Horizontal Coordinate Value (RHC)**

**Description:**

It is the horizontal offset in pixels to the right edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < RHC < HLL, RHC > LHC

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/ biom:FacelImageBoundingSquare

NIEM Element: biom:SegmentLeftHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.014\_3: Face Image Bounding Box Coordinates in Full Image - Top Vertical Coordinate Value (TVC)**

**Description:**

The vertical offset (pixel counts down) to the top of the bounding box.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < BVC < VLL, BVC > TVC

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/ biom:FacelImageBoundingSquare

NIEM Element: biom:SegmentTopVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.014\_4: Face Image Bounding Box Coordinates in Full Image - Bottom Vertical Coordinate Value (BVC)**

**Description:**

It is the vertical offset from the upper left corner of the image down to the bottom of the bounding box. It is counted in pixels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 <= BVC <= VLL

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/ biom:FacelImageBoundingSquare

NIEM Element: biom:SegmentBottomVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.014\_5: Face Image Bounding Box Coordinates in Full Image - Bounding Box Head Position Code (BBC)**

**Description:**

The fifth information item of FIP is the bounding box type, indicating the contents of the bounding box. If this field is omitted, the default value shall be H (Head only).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	see Look Up Codes

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/ biom:FacelImageBoundingSquare

NIEM Element: biom:FacelImageBoundingCategoryCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.015: Face Image Path Coordinates in Full Image (FPFI)**

**Description:**

If the face image (IMT = 'FACE') contains more than one face, or is not cropped to a “head only” or “head and shoulders” composition, this optional field contains offsets to the location of the path defining a region containing the face of the subject within a larger image. This field is only appropriate for images that do not comply with SAP Levels Levels 30, 32, 40, 42, 50, 51, or 52, because those images shall be cropped to a “head only” or “head and shoulders” composition.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Code List: FACE BOUNDING CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageBoundary

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.015\_1: Face Image Path Coordinates in Full Image - Boundary Code (BYC)**

**Description:**

Defines the shape of a boundary of a feature within an image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	BYC = C, E or P

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/ biom:FacelImageBoundary

NIEM Element: biom:FacelImageBoundaryShapeCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.015\_2: Face Image Path Coordinates in Full Image - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	2 < NOP < 99, positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageBoundary

NIEM Element: biom:PositionPolygonVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.015\_3: Face Image Path Coordinates in Full Image - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. The HPO and NPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < HPO < HLL, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageBoundary/biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.015\_4: Face Image Path Coordinates in Full Image - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin. The HPO and NPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < VPO < VLL, non-negative

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageBoundary/biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.016: Scanned Horizontal Pixel Scale (SHPS)**

**Description:**

The horizontal pixel density used for the scanning of the original image / impression providing that the SLC field contains a “1” or “2”. Otherwise, this shall indicate the horizontal component of the pixel aspect ratio, up to 5 integer digits. This field is used if the transmission pixel scale differs from the original image scale, as listed in Transmitted horizontal pixel scale / THPS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail

NIEM Element: biom:CaptureHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.017: Scanned Vertical Pixel Scale (SVPS)**

**Description:**

The vertical pixel density used for the scanning of the original image / impression providing that the SLC field contains a "1" or "2". Otherwise, this shall indicate the vertical component of the pixel aspect ratio, up to 5 integer digits. Note that density is directly related to resolution. If SLC is 1 or 2 and SHPS is entered, then SVPS shall equal SHPS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: biom:FacelImage/biom:ImageCaptureDetail or biom:PhysicalFeatureImage/biom:ImageCaptureDetail

NIEM Element: biom:CaptureVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.018: Distortion (DIST)**

**Description:**

This field contains the type of distortion, whether it is estimated or calculated, and its relative severity. This field contains three information items: Distortion Code (IDK), Distortion Field (IDK) and Distortion (DIS).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:ImageDistortion

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.018\_1: Distortion - Distortion Code (IDK)**

**Description:**

The first information item of the Distortion (DIST) field is the distortion code.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	10	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	IDK = Barrel or Inflated or Pincushion

Code List: DISTORTION CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageDistortion

NIEM Element: biom:ImageDistortionCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.018\_2: Distortion - Distortion Measurement Code (IDM)**

**Description:**

The second information item of the Distortion field (DIST) is an alphabetic code, which is a distortion measurement code (IDM), that indicates if the distortion is estimated "E" or calculated "C".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	IDM = E or C

Code List: DISTORTION MEASUREMENT CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageDistortion

NIEM Element: biom:ImageDistortionMeasurementCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.018\_3: Distortion - Distortion Severity Code (DSC)**

**Description:**

The third information item of the Distortion field (DIS) is the distortion severity code (DSC).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	8	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	DSC = Mild, Moderate or Severe

Code List: DISTORTION SEVERITY CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageDistortion

NIEM Element: biom:ImageDistortionSeverityCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.019: Lighting Artifacts (LAF)**

**Description:**

This optional field (contains the type of lighting artifacts found in the Type-10 image record. It is only applicable to face images (IMT = 'FACE'). Multiple lighting artifacts may be repeated as separate subfields.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	see Look Up Codes

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageLightingArtifactsCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.019\_0: Lighting Artifacts - Subfields: Repeating values (LAF\_0)**

**Description:**

This optional field (contains the type of lighting artifacts found in the Type-10 image record. It is only applicable to face images (IMT = 'FACE'). Multiple lighting artifacts may be repeated as separate subfields.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	3
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	value = F, H or R

Code List: LIGHTING ARTIFACTS CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageLightingArtifactsCode

XML Min/Max: 0 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.020: Subject Pose (POS)**

**Description:**

This field is to be used for the exchange of facial image data. When included, this field shall contain one ASCII character code selected from [possible codes below] to describe the pose of the subject. For the angled pose entry "A", [10.025 SPA Pose Offset Angle field] shall contain the offset angle from the full face orientation. For the determined 3D pose entry "D", [Type-10 Subject Post Angles field] shall contain a set of determined 3D pose angles. Note that the offset angle in [Type-10 Pose Offset Angle field] is opposite from the yaw angle in [Type-10 Subject Post Angles field] as indicated by a minus sign. A value of POS = D does not imply that the image itself is a 3D image, such as a point cloud. 3D imagery shall be transmitted in a Type-22 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	see Look Up Codes

Code List: SUBJECT POSE CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageSubjectPoseCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.021: Pose Offset Angle (POA)**

**Description:**

This shall only be used for the exchange of facial image data (IMT = "FACE"). It may be used if Field 10.020: Subject pose / POS contains an "A" to indicate an angled pose of the subject. The field shall not be used if the entry in POS is an "F", "R", "L" or "D". This field shall be omitted for a full face or a profile. This field specifies the pose direction of the subject at any possible orientation within a circle. Its value shall be to the nearest degree. The offset angle shall be measured from the full-face pose position and have a range of values from -180 degrees to +180 degrees. A positive angle is used to express the angular offset as the subject rotates from a full-face pose to their left (approaching a right profile). The allowed special characters are the plus sign and minus sign.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign, Plus Sign	n/a	-180 <= POA <= 180; integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImagePoseOffsetAngleMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes

DoD EBTS 2.0: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.1: Yes

**10.023: Photo Acquisition Source (PAS)**

**Description:**

This field shall specify the classification of the source of the image contained in this record. This field is required if the SAP entry [10.013 Subject Acquisition Profile field] is "40" or greater (IMT=FACE only). When included, this field shall contain an ASCII character code selected to describe the source of captured image data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageAcquisitionSource

XML Min/Max: 0 / 1

DoD EBTS 1.2: No

DoD EBTS 2.0: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.023\_1: Photo Acquisition Source - Photo Attribute Code (PAC)**

**Description:**

The first information item in the Photo Acquisition Source (PAS) field shall contain an attribute code to describe the source of captured image data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
6	14	1	1
Character Types	Special Characters	Format	Constraints
ANS	n/a	n/a	see Look Up Codes

Code List: FACE IMAGE ACQUISITION CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageAcquisitionSource

NIEM Element: biom:FacelImageAcquisitionSource

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.023\_2: Photo Acquisition Source - Vendor-Specific Description (VSD)**

**Description:**

When "VENDOR" is specified in photo attribute code / PAC, a second free-format information item (vendorspecific description / VSD) may be entered with up to 64 characters to describe the vendor-specific source of the captured image or to enter unlisted or miscellaneous source attributes for the facial image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageAcquisitionSource

NIEM Element: biom:FacelImageAcquisitionCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.024: Subject Quality Score (SQS)**

**Description:**

This optional field shall specify quality score data for facial images (IMT = 'FACE') stored in this record. There may be subfields for different quality scores and algorithms.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:AcquisitionSourceDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.024\_0: Subject Quality Score - Subfields: Repeating sets of information items (SQS\_0)**

**Description:**

This optional field shall specify quality score data for facial images (IMT = 'FACE') stored in this record. There may be subfields for different quality scores and algorithms.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:ImageQuality

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.024\_1: Subject Quality Score - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 < QVU < 100, non-negative integer or QVU = 254 or 255

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.024\_2: Subject Quality Score - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 < QAV < FFFF

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.024\_3: Subject Quality Score - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, which may be registered with the IBIA, but it is not required to be registered. It indicates which of the vendor's algorithms was used in the calculation of the quality score. This field contains the ASCII representation of the integer product code and should be within the range 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 < QAP < 65535, positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.025: Subject Pose Angles (SPA)**

**Description:**

This ASCII set shall be present when [10.020 Subject Pose field] (POS) contains a "D" to indicate a set of determined 3D pose angles of the same subject for a facial image (IMT = 'FACE'). When present, this information shall be entered as three or six information items. The first three items specify the pose of the subject estimated or measured at constrained possible orientations within a sphere. If this field is used, the first three are mandatory. Notes: ANSI/NIST ITL 1-2011: Update 2013 Subject Pose (POS) and subject pose angles (SPA) contains, additional information, details, and examples of the subject pose angles.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImage3DPoseAngle

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.025\_1: Subject Pose Angles - Yaw Angle (YAW)**

**Description:**

This information item is the Yaw angle (rotation about the vertical 'y' axis).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign	n/a	-180 < YAW < 180, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DPoseAngle

NIEM Element: biom:PoseYawAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.025\_2: Subject Pose Angles - Pitch Angle (PIT)**

**Description:**

This information item is the Pitch angle (rotation about 'x' horizontal axis).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign	n/a	-90 < PIT < 90, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DPoseAngle

NIEM Element: biom:PosePitchAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.025\_3: Subject Pose Angles - Roll Angle (ROL)**

**Description:**

This information Item is the Roll angle (rotation about the 'z' axis).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign	n/a	180 < PIT < 180, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DPoseAngle

NIEM Element: biom:PoseRollAngleMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.025\_4: Subject Pose Angles - Uncertainty in Degrees for Yaw (YAWU)**

**Description:**

The measure of uncertainty concerning the rotation about the vertical or Y axis of the pose.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < YAWU < 90, non-negative, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DPoseAngle

NIEM Element: biom:PoseYawUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.025\_5: Subject Pose Angles - Uncertainty in Degrees for Pitch (PITU)**

**Description:**

The fifth information item is the uncertainty in degrees for pitch / PITU.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < PITU < 90, non-negative, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DPoseAngle

NIEM Element: biom:PosePitchUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.025\_6: Subject Pose Angles - Uncertainty in Degrees for Roll (ROLU)**

**Description:**

The measure of uncertainty concerning the rotation about the Z axis of the pose.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < ROLU < 90, non-negative, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DPoseAngle

NIEM Element: biom:PoseRollUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.026: Subject Facial Description (SXS)**

**Description:**

This field is mandatory if the SAP entry for a facial image (Field 10.013: Subject acquisition profile / SAP) is "30" or greater. (IMT = FACE only). In other cases, this field is optional for facial images. When present, it shall describe attributes associated with the subject's captured facial image. This version maintains the upper limit of 50 repeating subfields for all encodings from the 2007 version. (The 2008 version was unrestricted). In the 2007 version, the minimum character count for this was listed as 5; however, there was an entry of "HAT" which has 3 characters. Thus, the minimum character count in this version is set at 3.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
D	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.026\_0: Subject Facial Description - Subfields: repeating values (SXS\_0)**

**Description:**

This field is mandatory if the SAP entry for a facial image (Field 10.013: Subject acquisition profile / SAP) is "30" or greater. (IMT = FACE only). In other cases, this field is optional for facial images. When present, it shall describe attributes associated with the subject's captured facial image. This version maintains the upper limit of 50 repeating subfields for all encodings from the 2007 version. (The 2008 version was unrestricted). In the 2007 version, the minimum character count for this was listed as 5; however, there was an entry of "HAT" which has 3 characters. Thus, the minimum character count in this version is set at 3.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	20	1	50
Character Types	Special Characters	Format	Constraints
AS	n/a	n/a	see Look Up Codes

Code List: SUBJECT FACIAL DESCRIPTION CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageDescriptionText

XML Min/Max: 1 / 50

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.027: Subject Eye Color - Repeating values. (SEC)**

**Description:**

Describe the eye color of the subject as seen in the photograph. If unusual or unnatural such as may be the case when colored contact lenses are present and the “real” eye color cannot be ascertained, then the color should be labeled as “XXX”. Eye color attributes and attribute codes are given by possible codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	see Look Up Codes

Code List: ALPHA EYE COLOR CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: j:PersonEyeColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.028: Subject Hair Color (SHC)**

**Description:**

Describes the hair color of the subject as seen in the photograph.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:HairColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.028\_0: Subject Hair Color - Subfields: Repeating values (SHC\_0)**

**Description:**

Describes the hair color of the subject as seen in the photograph.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	2
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	see Look Up Codes

Code List: HAIR COLOR

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:HairColorCode

XML Min/Max: 0 / 2

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.029: 2D Facial Feature Points (FFP)**

**Description:**

The ASCII set shall be used for the exchange of facial image data. When present, it shall describe special attributes of manually or automatically detected facial feature points of the captured facial image. The optional field shall be used for the exchange of facial (IMT = 'FACE', 'HEAD', 'LIP', 'EXTRAORAL' and 'CONDITION') feature points or landmarks. This information shall be entered as a four-information item feature point block in a repeating subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImage2DFeaturePoint

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.029\_0: 2D Facial Feature Points - Subfields: Repeating sets of information items (FFP\_0)**

**Description:**

The ASCII set shall be used for the exchange of facial image data. When present, it shall describe special attributes of manually or automatically detected facial feature points of the captured facial image. The optional field shall be used for the exchange of facial (IMT = 'FACE', 'HEAD', 'LIP', 'EXTRAORAL' and 'CONDITION') feature points or landmarks. This information shall be entered as a four-information item feature point block in a repeating subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	88
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImage2DFeaturePoint

XML Min/Max: 1 / 88

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.029\_1: 2D Facial Feature Points - Feature Point Type (FPT)**

**Description:**

The first information item of 2D Facial Feature Points (FFP) or 3D Facial Feature Points (3DF) is a one character value. It is mandatory. It shall be either: 1 = Denoting an MPEG4 Feature point, or 2 = Anthropometric landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	FPT = 1 or 2

Code List: FEATURE POINT TYPE CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage2DFeaturePoint

NIEM Element: biom:FeaturePointCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.029\_2: 2D Facial Feature Points - Feature Point Code (FPC)**

**Description:**

If FPT is 1, this information item shall be "A.B" with A and B defined. If FPT is 2, the codes are entered as shown in the Feature Point ID column of the Feature Point ID Code table.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	1	1
Character Types	Special Characters	Format	Constraints
ANS	Period	n/a	Format: N.N, N.NN, NN.N, NN.NN, a, aa, aaa or aaaa

Code List: FEATURE POINT ID CODE / EYE AND NOSTRIL CENTER FEATURE POINT CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.029\_3: 2D Facial Feature Points - X Coordinate (HCX)**

**Description:**

The third information item of the 2D Facial Feature Points (FFD) or 3D Facial Feature Points (3DF). It is 1 to 5 characters, denoting the pixel count horizontally to the right from the upper left pixel, which is set to 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 < HCX < HLL, non-negative

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.029\_4: 2D Facial Feature Points - Y Coordinate (HCY)**

**Description:**

The fourth information item of the 2D Facial Feature Points (FFD) or 3D Facial Feature Points (3DF). It is 1 to 5 characters, denoting the pixel count vertically down from the upper left pixel, which is set to 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 < HCY < VLL, non-negative

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.030: Device Monitoring Mode (DMM)**

**Description:**

This field provides information describing the human monitoring operation of the image capture device, and will contain an entry from the Device Monitoring Mode Code list to indicate the monitoring mode of the biometric sample capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
7	10	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	see Look Up Codes

Code List: CAPTURE DEVICE MONITORING MODE CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDeviceMonitoringModeCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.031: Tiered Markup Collection (TMC)**

**Description:**

This optional field describes the specific facial (IMT = 'FACE') feature points contained in Field 10.029: 2D Facial feature points / FFP and if level 5, contours shall be contained in Field 10.033: Feature contours / FEC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer; see Look Up Codes

Code List: TIERED MARKUP COLLECTION CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageFeaturePointTierNumeric

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.032: 3D Facial Feature Points (3DF)**

**Description:**

Each subfield refers to a specific contour on the image and contains a minimum of three points. This field shall appear if TMC = 5, otherwise, it is optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImage3DFeaturePoint

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.032\_0: 3D Facial Feature Points - Subfields: Repeating sets of information items (3DF\_0)**

**Description:**

Each subfield refers to a specific contour on the image and contains a minimum of three points. This field shall appear if TMC = 5, otherwise, it is optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	88
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImage3DFeaturePoint

XML Min/Max: 1 / 88

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.032\_1: 3D Facial Feature Points - Feature Point Type (FPT)**

**Description:**

The first information item of 2D Facial Feature Points (FFP) or 3D Facial Feature Points (3DF) is a one character value. It is mandatory. It shall be either: 1 = Denoting an MPEG4 Feature point, or 2 = Anthropometric landmark. The allowed special character is a period. If FPT is 2, the codes are entered as shown in the "Feature Point ID" column of Table 65. Note that this entry is one to four alphabetic characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	FPT = 1 or 2

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.032\_2: 3D Facial Feature Points - Feature Point Code (FPC)**

**Description:**

The second information item, feature point code / FPC is 3 to 5 characters. If FPT is 1, this information item shall be "A.B" with A and B defined ANSI/NIST ITL 1-2011: Update 2013. If FPT is 2, the codes are entered as shown in the "Feature Point ID" column Feature Point ID Code and Eye and Nostril Center Feature Point Code lists.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	1	1
Character Types	Special Characters	Format	Constraints
ANS	Period	N.N, N.NN, NN.N, NN.NN, a, aa, aaa or aaaa	Format: N.N, N.NN, NN.N, NN.NN, a, aa, aaa or aaaa

Code List: FEATURE POINT ID CODE / EYE AND NOSTRIL CENTER FEATURE POINT CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.032\_3: 3D Facial Feature Points - X Coordinate (HCX)**

**Description:**

The third information item of the 2D Facial Feature Points (FFD) or 3D Facial Feature Points (3DF). It is 1 to 5 characters, denoting the pixel count horizontally to the right from the upper left pixel, which is set to 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 < HCX < HLL, non-negative, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.032\_4: 3D Facial Feature Points - Y Coordinate (HCY)**

**Description:**

The fourth information item of the 2D Facial Feature Points (FFD) or 3D Facial Feature Points (3DF). It is 1 to 5 characters, denoting the pixel count vertically down from the upper left pixel, which is set to 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 < HCY < VLL, non-negative, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.032\_5: 3D Facial Feature Points - Z Coordinate (HCZ)**

**Description:**

The fifth information item of the 3D Facial Feature Points (3DF) field. It is 1 to 5 characters, denoting the pixel count from the X-Y plane, which is set to 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 < HCZ < 99999, nonnegative, integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImage3DFeaturePoint

NIEM Element: biom:FeaturePointZCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.033: Feature Contours (FEC)**

**Description:**

Each subfield refers to a specific contour on the image and contains a minimum of three points. This field shall appear if TMC = 5. It is optional otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageContour

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.033\_0: Feature Contours - Subfields: Repeating sets of information items (FEC\_0)**

**Description:**

Each subfield refers to a specific contour on the image and contains a minimum of three points. This field shall appear if TMC = 5. It is optional otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	12
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageContour

XML Min/Max: 1 / 12

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.033\_1: Feature Contours - Feature Contour Code (FCC)**

**Description:**

The first information item of the Feature Contour (FEC).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	14	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	see Look Up Codes

Code List: FEATURE CONTOUR CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageContour

NIEM Element: biom:FacelImageContourCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.033\_2: Feature Contours - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	3 < NOP < 99

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageContour

NIEM Element: biom:PositionPolygonVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.033\_3: Feature Contours - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. The HPO and VPO information items are repeated as pairs, in order by point following the path, up to the final point - for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < HPO < HLL

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageContour/biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.033\_4: Feature Contours - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin. The HPO and VPO information items are repeated as pairs, in order by point following the path, up to the final point - for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < VPO < VLL

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageContour/biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.034: IMAGE CAPTURE DATE RANGE ESTIMATE (ICDR)**

**Description:**

It is possible to enter only a year, month and/or day range, such as D5, meaning that the actual date of collection is estimated to be 5 days plus or minus from that specified in PHD. Leading zeros need not be entered.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	9	0	1
Character Types	Special Characters	Format	Constraints
AN	n/a	YYMMDD	Time measure indicator followed by 1 or 2 digits.

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDateEstimateRangeDuration

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.038: Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:ImageCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.039: Type-10 Reference Number (T10)**

**Description:**

Cheilosopic image data / CID or dental visual image comparison descriptive text / VICD is present in Field 10.050: Dental visual image data information / VID. The same T10 is used when referring to a particular image. This field shall only be present if multiple Type-10 records in the transaction contain the same SMT or body part. It can be used for any image type specified in Field 10.003: Image type / IMT. T10 is a positive integer. The only requirement is that a value for T10 only links related images. An example would be to assign a value of 1 to two different Type-10 records, the first of which has an image of a tattoo over the entire chest of a male. A second image of a small portion of the tattoo on the chest showing a gang symbol is contained in another Type-10 with the same value of 1 for T10. No other Type-10 records (in this example) would have a value of 1 for T10. This is an optional field. It is used when several images cover either the entire scar, (needle) mark, tattoo (SMT) or portions of it. This field shall be present if lip print comparison descriptive text / LPCT is present in Field 10.049: The same T10 is used when referring to a particular image. This field shall only be present if multiple Type-10 records in the transaction contain the same SMT or body part.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	1 <= T10 <= 255

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:Type10CrossReferenceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.040: NCIC SMT Code (SMT)**

**Description:**

This field shall be used only when Field 10.003: Image type / IMT = "SCAR", "MARK", or "TATTOO". It is not used for other images. It is used to identify a general location of the captured scar, mark, tattoo, or other characteristic (including piercings) in an image. The contents of this field shall be from the NCIC code. The captured image may encompass an area larger than that specified by a single NCIC body part code for the particular image type. This situation may be accommodated by listing multiple NCIC codes, each in a separate subfield. In this case the primary code is listed first. There need not be more than one subfield. For the "marks" category, the NCIC manual lists the common locations for needle track marks. For other body part locations not listed under the "marks" category, use the body location codes listed for scars.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	Values from Annex D of ANSI/NIST ITL 1-2011 (Update 2013)

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:PhysicalFeatureNCICCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.040\_0: NCIC SMT Code - Subfields: Repeating values (SMT\_0)**

**Description:**

This field shall be used only when Field 10.003: Image type / IMT = "SCAR", "MARK", or "TATTOO". It is not used for other images. It is used to identify a general location of the captured scar, mark, tattoo, or other characteristic (including piercings) in an image. The contents of this field shall be from the NCIC code. The captured image may encompass an area larger than that specified by a single NCIC body part code for the particular image type. This situation may be accommodated by listing multiple NCIC codes, each in a separate subfield. In this case the primary code is listed first. There need not be more than one subfield. For the "marks" category, the NCIC manual lists the common locations for needle track marks. For other body part locations not listed under the "marks" category, use the body location codes listed for scars.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	10	1	3
Character Types	Special Characters	Format	Constraints
AS	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:PhysicalFeatureNCICCode

XML Min/Max: 1 / 3

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.041: SMT SIZE OR SIZE OF INJURY OR IDENTIFYING CHARACTERISTIC (SMS)**

**Description:**

This set shall contain the dimensions of the portion of image contained in this record (it may be the entire scar, mark, tattoo, injury or identifying characteristic). Each dimension shall be entered to the nearest centimeter.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:PhysicalFeatureSize

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.041\_1: SMT SIZE OR SIZE OF INJURY OR IDENTIFYING CHARACTERISTIC - Height (HGT)**

**Description:**

The height of the scar, mark or tattoo in nearest centimeter.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:PhysicalFeatureSize

NIEM Element: biom:PhysicalFeatureHeightMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.041\_2: SMT SIZE OR SIZE OF INJURY OR IDENTIFYING CHARACTERISTIC - Width (WID)**

**Description:**

The width of the scar, mark or tattoo in the nearest centimeter.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:PhysicalFeatureSize

NIEM Element: biom:PhysicalFeatureWidthMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.042: SMT Descriptors (SMD)**

**Description:**

This field is used to describe the content of the SMT image to an extent greater than documented in Field 10.040: NCIC SMT code / SMT. It shall consist of one or more subfields. This version maintains the upper limit of 9 for all encodings. This field shall be used only when Field 10.003: Image type / IMT= "SCAR", "MARK", or "TATTOO". An SMT image consisting of several parts or sub-images shall use subfields to fully describe the various parts or features found in the total image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureDescriptionDetail

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.042\_0: SMT Descriptors - Subfields: Repeating values (SMD\_0)**

**Description:**

This field is used to describe the content of the SMT image to an extent greater than documented in Field 10.040: NCIC SMT code / SMT. It shall consist of one or more subfields. This version maintains the upper limit of 9 for all encodings. This field shall be used only when Field 10.003: Image type / IMT= "SCAR", "MARK", or "TATTOO". An SMT image consisting of several parts or sub-images shall use subfields to fully describe the various parts or features found in the total image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureDescriptionDetail

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.042\_1: SMT Descriptors - SMT code indicator (SMI)**

**Description:**

This information item shall identify the source of the image as being a scar, a mark or a tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	8	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Code List: SMT DESCRIPTORS

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.042\_2: SMT Descriptors - Tattoo Class (TAC)**

**Description:**

This information item shall be the general class code of tattoo chosen. For each general class of tattoo, there are several defined subclasses.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	8	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Code List: TATTOO CLASSES CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.042\_3: SMT Descriptors - Tattoo Subclass (TSC)**

**Description:**

This information item of the subfield shall be the appropriate subclass code selected from the various subclasses of tattoos for each of the general classes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	11	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Code List: TATTOO CLASSES CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureSubClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.042\_4: SMT Descriptors - Tattoo Description (TDS)**

**Description:**

This information item in the subfield shall be an ASCII text string that provides additional qualifiers to describe the image or portion of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	256	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.043: Tattoo Color (COL)**

**Description:**

This field is optional, but it can only be used when Field 10.042: SMT descriptors / SMD is in the record. It shall contain one subfield corresponding to each subfield contained in Field 10.042: SMT descriptors / SMD. Each subfield shall contain up to 6 information items that state the color(s) of the tattoo or part of the tattoo. For each subfield entry, the first one shall be the predominant color. Additional colors may be entered as optional subsequent information items of the form tattoo color code 1 through tattoo code 6. There need not be more than one information item. This field can only be used when Field 10.042: SMT descriptors / SMD is in the record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
D	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureColorDetail

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.043\_0: Tattoo Color - Subfields: repeating values in the same order as those of SMD (COL\_0)**

**Description:**

This field is optional, but it can only be used when Field 10.042: SMT descriptors / SMD is in the record. It shall contain one subfield corresponding to each subfield contained in Field 10.042: SMT descriptors / SMD. Each subfield shall contain up to 6 information items that state the color(s) of the tattoo or part of the tattoo. For each subfield entry, the first one shall be the predominant color. Additional colors may be entered as optional subsequent information items of the form tattoo color code 1 through tattoo code 6. There need not be more than one information item.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9

Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail

NIEM Element: biom:PhysicalFeatureColorDetail

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.043\_1: Tattoo Color - Tattoo Color Code 1 (TC1)**

**Description:**

This first information item is part of the Tattoo Color (COL) field. It lists the predominant color of the tattoo or part of the tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	1	1

Character Types	Special Characters	Format	Constraints
A	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail/biom:PhysicalFeatureColorDetail

NIEM Element: biom:PhysicalFeaturePrimaryColorCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.043\_2: Tattoo Color - Tattoo Color Code 2 (TC2)**

**Description:**

This second information item is part of the Tattoo Color (COL) field. It lists the additional color of the tattoo or part of the tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail/biom:PhysicalFeatureColorDetail

NIEM Element: biom:PhysicalFeatureSecondaryColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.043\_3: Tattoo Color - Tattoo Color Code 3 (TC3)**

**Description:**

This third information item is part of the Tattoo Color (COL) field. It lists the additional color of the tattoo or part of the tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail/biom:PhysicalFeatureColorDetail

NIEM Element: biom:PhysicalFeatureSecondaryColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.043\_4: Tattoo Color - Tattoo Color Code 4 (TC4)**

**Description:**

This fourth information item is part of the Tattoo Color (COL) field. It lists the additional color of the tattoo or part of the tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail/biom:PhysicalFeatureColorDetail

NIEM Element: biom:PhysicalFeatureSecondaryColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.043\_5: Tattoo Color - Tattoo Color Code 5 (TC5)**

**Description:**

This fifth information item is part of the Tattoo Color (COL) field. It lists the additional color of the tattoo or part of the tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail/biom:PhysicalFeatureColorDetail

NIEM Element: biom:PhysicalFeatureSecondaryColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.043\_6: Tattoo Color - Tattoo Color Code 6 (TC6)**

**Description:**

This sixth information item is part of the Tattoo Color (COL) field. It lists the additional color of the tattoo or part of the tattoo.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	7	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:PhysicalFeatureDescriptionDetail/biom:PhysicalFeatureColorDetail

NIEM Element: biom:PhysicalFeatureSecondaryColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.044: Image Transform (ITX)**

**Description:**

This optional field is used in the case when the image in this Type-10 record has been transformed from the original image. The untransformed image(s) (optionally) may be included in a Type-20 record. The information item in this field may be repeated if multiple transforms were performed. It can be used for any image type specified in Field 10.003: Image type / IMT .

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:ImageTransformationCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.044\_0: Image Transform - Subfields: Repeating values (ITX\_0)**

**Description:**

This optional field is used in the case when the image in this Type-10 record has been transformed from the original image. The untransformed image(s) (optionally) may be included in a Type-20 record. The information item in this field may be repeated if multiple transforms were performed. It can be used for any image type specified in Field 10.003: Image type / IMT .

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	11	1	18
Character Types	Special Characters	Format	Constraints
A	None	n/a	see Look Up Codes

Code List: IMAGE TRANSFORM VALUES CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:ImageTransformationCode

XML Min/Max: 1 / 18

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.045: Occlusions (OCC)**

**Description:**

This optional field defines the outline and contents of any occlusions that partially or totally blocks the image of the face (IMT = 'FACE'). This is a contour or a polygon. Each point on the polygon is represented by a pair of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageOcclusion

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.045\_0: Occlusions - Subfields: Repeating values (OCC\_0)**

**Description:**

This optional field defines the outline and contents of any occlusions that partially or totally blocks the image of the face (IMT = 'FACE'). This is a contour or a polygon. Each point on the polygon is represented by a pair of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	16
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:FacelImageOcclusion

XML Min/Max: 1 / 16

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.045\_1: Occlusions - Occlusion Opacity (OCY)**

**Description:**

This field contains a code from the Occlusion Opacity Code table.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	OCY = T, I, L or S

Code List: OCCLUSION OPACITY CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageOcclusion

NIEM Element: biom:FacelImageOcclusionOpacityCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.045\_2: Occlusions - Occlusion Type (OCT)**

**Description:**

This field contains a code from the Occlusion Type Code table.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	OCT = H, S, C, R, or O

Code List: OCCLUSION TYPE CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageOcclusion

NIEM Element: biom:FacelImageOcclusionCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.045\_3: Occlusions - Number of Points (NOP)**

**Description:**

This field shall specify the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	3 <= NOP <=99

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageOcclusion

NIEM Element: biom:PositionPolygonVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.045\_4: Occlusions - Horizontal Point Offset (HPO)**

**Description:**

This field contains information items are pairs of x and y coordinates of vertices. The horizontal offsets (X) are the pixel counts to the right. Pairings are inserted for each vertex, up to the NOP. The HPO and VPO two information items are repeated as pairs, in order by point following the path, up to the final point - for a total of NOP pairs

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 <= HPO <= HLL

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageContour/biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.045\_5: Occlusions - Vertical Point Offset (VPO)**

**Description:**

This field contains information items are pairs of x and y coordinates of vertices. The vertical offsets (Y) are the pixel counts down from the origin. Pairings are inserted for each vertex, up to the NOP. The HPO and VPO two information items are repeated as pairs, in order by point following the path, up to the final point - for a total of NOP pairs

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 <= VPO <= VLL

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:FacelImageContour/biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.046: Image Subject Condition (SUB)**

**Description:**

This field is optional. This field is particularly useful if the image is obtained from a deceased person. However, its use is not limited to such circumstances. Some implementation domains support the submission of fingerprints taken from deceased individuals as latent prints, due to the quality of the friction ridges and the resulting images. In such cases, SSC is specified as D. For latent images taken from a surface, the value is typically X.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:SubjectExistentialDetails

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.046\_1: Image Subject Condition - Subject Status Code (SSC)**

**Description:**

The first information item is mandatory if this field is present. It is subject status code (SSC).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	SSC = X, A or D

Code List: SUBJECT STATUS CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectExistentialStatusCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.046\_2: Image Subject Condition - Subject Body Status Code (SBSC)**

**Description:**

The second information item shall be entered if and only if SSC is D. It is subject body status code (SBSC). Its purpose is to indicate whether the information relates to an entire corpse or a separate body part.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	SBSC = 1 or 2, positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyStatusCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.046\_3: Image Subject Condition - Subject Body Class Code (SBCC)**

**Description:**

The third information item shall be entered if and only if SSC is D. It is subject body class code (SBCC).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	SBCC = 1, 2, or 3, positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.047: Capture Organization Name (CON)**

**Description:**

Describes the agency that created the record. Since the record may have been forwarded by another agency to the final destination, Field 1.008: Originating agency identifier / ORI is used to indicate the transmitting organization. In many implementation domains, there are a limited number of transmission organizations that can send data. Therefore, the agency listed in SRC may send the transaction to another location that has access rights to the final destination. This intermediary may add information to the transaction, as well. The final transmitting organization code is listed in Field 1.008: Originating agency identifier / ORI. Its name may be entered in Originating agency name /OAN in Field 1.017: Agency names

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationUnitName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.048: Suspected Patterned Injury Detail (PID)**

**Description:**

This field contains information concerning suspected patterned injuries. This optional field defines the outline and contents of any occlusions that partially or totally blocks the image of the face (IMT = 'FACE'). This is a contour or a polygon. Values for Field 10.003: Image type / IMT of SCAR, MARK, TATTOO, MISSING, OTHER and CONDITION shall not be used for patterned injuries, and thus this field shall not appear if IMT is set to any of those values. Field 10.041: SMT size or size of injury or identifying characteristic / SMS should be included in the record if this field is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:PatternedInjuryDetail

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.048\_0: Suspected Patterned Injury Detail - Subfields: Repeating sets of information items (PID\_0)**

**Description:**

This field contains information concerning suspected patterned injuries. This optional field defines the outline and contents of any occlusions that partially or totally blocks the image of the face (IMT = 'FACE'). This is a contour or a polygon. Values for Field 10.003: Image type / IMT of SCAR, MARK, TATTOO, MISSING, OTHER and CONDITION shall not be used for patterned injuries, and thus this field shall not appear if IMT is set to any of those values. Field 10.041: SMT size or size of injury or identifying characteristic / SMS should be included in the record if this field is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage

NIEM Element: biom:PatternedInjuryDetail

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.048\_1: Suspected Patterned Injury Detail - ADA Reference Code List (PARC)**

**Description:**

This field contains a code value characterizing a patterned injury in ANSI/ADA Standard No. 1077 – Dental Biometric Descriptors.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	30	0	1
Character Types	Special Characters	Format	Constraints
NS	n/a	n/a	Valid Code from ANSI/ADA Standard No. 1077

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:PatternedInjuryDetail

NIEM Element: biom:PatternedInjuryReferenceCodeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.048\_2: Suspected Patterned Injury Detail - Additional Descriptive Text (PADT)**

**Description:**

This field contains a Unicode free text information item description of the patterned injury.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:PatternedInjuryDetail

NIEM Element: biom:PatternedInjuryDescriptiveText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049: Cheilosopic Image Description (CID)**

**Description:**

This field contains a set of subfield relaying information about the Cheilosopic Image. If this field is encoded in Traditional format, each of the values in information items designated as a 'list' shall be separated by '|' (vertical bar). For XML each value in a list should be entered as a separate element. This field may be used only if Field 10.003: Image type / IMT is LIP. The vertical bar "|" is used in Traditional format in a list as a separating character. In XML encoding, each value (including <>) is a separate element and the vertical bar does not appear.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:CheilosopicImageInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_1: Cheiloscopic Image Description - Lip Print Width (LPW)**

**Description:**

It corresponds to the distance from feature point code 8.4 to feature point code 8.3 on the MOUTH in Feature point codes defined in ISO/IEC 14496-2 FEATURE POINT CODES. It is measured in millimeters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	positive integer

Code List: ISO/IEC 14496-2 FEATURE POINT CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopicImageInformation

NIEM Element: biom:LipPrintWidthValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_2: Cheiloscopic Image Description - Lip Print Height (LPH)**

**Description:**

It contains the distance from feature points 8.2 to feature point 2.3 PLUS the distance from feature point 2.2 to feature 8.1 on the MOUTH in Feature point codes defined ISO/IEC 14496-2 FEATURE POINT CODES. It is measured in millimeters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	positive integer

Code List: ISO/IEC 14496-2 FEATURE POINT CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopicImageInformation

NIEM Element: biom:LipPrintHeightValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_3: Cheiloscopic Image Description - Philtrum Width (PHW)**

**Description:**

It is the distance from feature point 8.9 to 8.10 as shown in Feature point codes defined in ISO/IEC 14496-2 FEATURE POINT CODES. It is measured in millimeters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	positive integer

Code List: ISO/IEC 14496-2 FEATURE POINT CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopicImageInformation

NIEM Element: biom:PhiltrumWidthValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_4: Cheiloscopic Image Description - Philtrum Height (PHH)**

**Description:**

PHH is the distance in millimeters from feature point 8.1 to 9.15 (on the nose).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	positive integer

Code List: CHEILIOSCOPIC CHARACTERIZATION CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopicImageInformation

NIEM Element: biom:PhiltrumHeightValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_5: Cheilioscopic Image Description - Upper Lip Characterization List (ULCL)**

**Description:**

The fifth information item, upper lip print characterization list/ ULCL, is optional. It is text that may be used to describe the print. The characterizations are those developed by Suzuki and Tsuchihashi. It is highly recommended that any distinctive patterns be outlined using Field 10.033: Feature contours / FEC. This field's XML reference is not in the NIEM Biometrics domain table. Coded as biom domain by NIST Appendix G.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
AS	n/a	n/a	list may have up to 5 values

Code List: CHEILIOSCOPIC CHARACTERIZATION CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilioscopicImageInformation

NIEM Element: biom:UpperLipCharacterizationCodeList

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_6: Cheilioscopic Image Description - Lower Lip Characterization List (LLCL)**

**Description:**

The fifth information item, lower lip print characterization list/ LLCL, is optional. It is text that may be used to describe the print. The characterizations are those developed by Suzuki and Tsuchihashi. It is highly recommended that any distinctive patterns be outlined using Field 10.033: Feature contours / FEC. This field's XML reference is not in the NIEM Biometrics domain table. Coded as biom domain by NIST Appendix G.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
AS	For traditional encoding, the special character “ ” is allowed as a separator character	n/a	list may have up to 5 values

Code List: CHEILIOSCOPIC CHARACTERIZATION CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilioscopicImageInformation

NIEM Element: biom:LowerLipCharacterizationCodeList

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_7: Cheiloscopy Image Description - Lip Contact Line Descriptor (LCLD)**

**Description:**

Contains the LIP CONTACT LINE DESCRIPTOR CODES.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	LCLD = L, C or M

Code List: LIP CONTACT LINE DESCRIPTOR CODES

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopyImageInformation

NIEM Element: biom:LipContactLineDescriptorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_8: Cheiloscopy Image Description - Lip Print Characterization Text (LPCT)**

**Description:**

Description of the lip print characterization. This field is mandatory if LPCL contains the value O. It is UNICODE free text.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopyImageInformation

NIEM Element: biom:CheiloscopyImageInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.049\_9: Cheiloscopy Image Description - Lip Print Pathologies and Peculiarities List (LPPL)**

**Description:**

If Type-code 99 is selected, then LPPT shall be used to describe the condition. Only one of the values 8, 9, 10, 11 or 12 may appear in the list. List may have up to 13 values. Only one of the values 8, 9, 10 11, or 12 may appear in the list. List may have up to 13 values. This field's XML reference is not in the NIEM Biometrics domain table. Coded as biom domain by NIST Appendix G.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
NS	For traditional encoding, the special character “ ” is allowed as a separator character	n/a	8, 9, 10 11, or 12

Code List: LIP PATHOLOGIES AND PECULIARITIES CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopyImageInformation

NIEM Element: biom:LipPrintPathologiesPeculiaritiesCodeList

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_10: Cheiloscopy Image Description - Lip Print Pathologies and Peculiarities Descriptive Text (LPPT)**

**Description:**

This field contains descriptive text regarding the lip print pathologies and peculiarities. This field shall appear if LPPL has a value of 99. This field's XML reference is not in the NIEM Biometrics domain table. Coded as biom domain by NIST Appendix G.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheiloscopyImageInformation

NIEM Element: biom:LipPrintPathologiesPeculiaritiesText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_11: Cheilososcopic Image Description - Lip Print Surface List (LPSL)**

**Description:**

Multiple codes may be selected from Lip Print Surface codes, since a lip print may be on multiple surfaces. An exemplar of a lip print may be made on a standard surface, such as a glass photographic slide mount. If a Type-code other than 1 is selected, then lip print surface descriptive text / LPST shall be entered. If Type-code 1 is chosen, then no other values shall be entered in the list. List may have up to 3 values. If Typecode 1 is chosen, no other values are allowed. This field's XML reference is not in the NIEM Biometrics domain table. Coded as biom domain by NIST Appendix G.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
NS	For traditional encoding, the special character " " is allowed as a separator character	n/a	

Code List: LIP PRINT SURFACE CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilososcopicImageInformation

NIEM Element: biom:LipPrintSurfaceCodeList

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_12: Cheilososcopic Image Description - Lip Print Surface Descriptive Text (LPST)**

**Description:**

This field describes the surface on which the lip print occurs. This field contains descriptive text for the lip print surface. It should be entered if LPSL has a value other than 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilososcopicImageInformation

NIEM Element: biom:LipPrintSurfaceText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_13: Cheilosopic Image Description - Lip Print Medium Code (LPMC)**

**Description:**

This field shall be selected from Lip Print Medium Codes. If Type-code 9 is selected, then lip print medium descriptive text / LPMT shall be entered.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	

Code List: LIP PRINT MEDIUM CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilosopicImageInformation

NIEM Element: biom:LipPrintMediumCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_14: Cheilosopic Image Description - Lip Print Medium Descriptive Text (LPMT)**

**Description:**

This field describes the lip print medium. If LPMC has a value of 9, then it shall be entered.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilosopicImageInformation

NIEM Element: biom:LipPrintMediumText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_15: Cheilosopic Image Description - Facial Hair Descriptive Text (FHDT)**

**Description:**

This field is used to describe the presence, pattern, distribution and density of the follicles if they are visible in the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilosopicImageInformation

NIEM Element: nc:PersonFacialHairText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_16: Cheilosopic Image Description - Lip Print Position and Tension Text (LPDT)**

**Description:**

This information item should describe in general terms the probable, possible or verified relative position of the lips to each other and the muscle tension and shape of the lip print. There may be considerable variation in lip prints if the lips were pursed or open or if a print is taken post-mortem.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilosopicImageInformation

NIEM Element: biom:LipPositionTensionDescriptiveText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.049\_17: Cheilosopic Image Description - Lip Print Additional Descriptive Text (LPAT)**

**Description:**

This field should be used to describe any relevant information that may assist in the analysis of the cheilosopic image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilosopicImageInformation

NIEM Element: biom:LipPrintDescriptiveText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.049\_18: Cheilosopic Image Description - Lip Print Comparison Descriptive Text (LPCT)**

**Description:**

This field may be used by an analyst to note the results of a comparison against another image. If this information item is present, then Field 10.039: Type-10 reference number / T10 shall be present in the record to indicate the image against which the image in this instance of the Record Type-10 is compared.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:CheilosopicImageInformation

NIEM Element: biom:LipPrintCharacterizationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.050: Dental Visual Image Data Information (VID)**

**Description:**

This field is used to highlight distinctive features in an image. This field shall only be used if Field 10.003: Image type / IMT has a value of EXTRAORAL or INTRAORAL. When distinct features are outlined for comparison on an exemplar and a latent image, then Field 10.039: Type-10 reference number / T10 should be used to link the two Type-10 records.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:DentalVisualImageDataInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.050\_1: Dental Visual Image Data Information - Visual Image View Code (VIVC)**

**Description:**

It is an entry selected from the "View Code" column of Dental Image codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	1	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	

Code List: DENTAL IMAGE CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:DentalVisualImageDataInformation

NIEM Element: biom:DentalVisualImageCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.050\_2: Dental Visual Image Data Information - Visual Image Additional Descriptive Text (VIDT)**

**Description:**

This field contains descriptive text on the Dental Visual Image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:DentalVisualImageDataInformation

NIEM Element: biom:DentalVisualImageDescriptiveText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.050\_3: Dental Visual Image Data Information - Visual Image Comparison Descriptive Text (VICD)**

**Description:**

This field is normally used by an analyst to note the results of a comparison against another image. If this information item is present, then Field 10.039: Type-10 reference number / T10 shall be present in the record to indicate the image against which the image in this instance of the Record Type-10 is compared.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:DentalVisualImageDataInformation

NIEM Element: biom:DentalVisualImageComparisonDescriptiveText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.051: Ruler or Scale Presence (RSP)**

**Description:**

This set of fields allows the user to state whether a ruler or other known scale is present in the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: biom:RulerScalePresenceInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.051\_1: Ruler or Scale Presence - Ruler or Scale Units (RSU)**

**Description:**

This field indicates the units of measurement visible on the ruler or measurement scale. Valid entries are: IN = inches; MM = millimeters; BOTH = both inches and millimeters

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	4	0	1
Character Types	Special Characters	Format	Constraints
A	n/a	n/a	RSU = IN, MM, or BOTH

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:RulerScalePresenceInformation

NIEM Element: biom:RulerScaleUnitCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.051\_2: Ruler or Scale Presence - Ruler or Scale Make (RSM)**

**Description:**

This field lists the maker of the ruler or scale (if known).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:RulerScalePresenceInformation

NIEM Element: biom:RulerScaleMakeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**10.051\_3: Ruler or Scale Presence - Ruler or Scale Model (RSO)**

**Description:**

This field lists the model of the ruler or scale (if known). For patterned injuries, the ABFO # 2 Reference Scale (commonly called the ABFO # 2 ruler) shall be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:RulerScalePresenceInformation

NIEM Element: biom:RulerScaleModelText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.902: Annotated Information (ANN)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: itl:PackagePhotographicBodyPartImageRecord

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.902\_0: Annotated Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: itl:PackagePhotographicBodyPartImageRecord

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on encoding	Dependent on encoding	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:ZuluDateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-10 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.903: Device Unique Identifier (DUI)**

**Description:**

The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of the following: a Host PC MAC address (identified by the first character "M"), a Host PC processor ID (identified by the first character "P").

since it is available in the Make / Model / Serial Number field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
13	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	first character = M or P

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.904: Make/Model/Serial Number (MMS)**

**Description:**

The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Unknown information may be indicated with the value "0." Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDevice

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.904\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.904\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.904\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.992: Biometric Cross Reference Identification (T2C)**

**Description:**

When used, it contains the IDC value of the Type-2 record that contains relevant biographic information and other data concerning the subject of this instance of the record, who may be different from the subject of the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 < T2C < 99, non-negative integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: biom:Type2CrossReferenceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field xx.004: Source agency / SRC for record types 9-99.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.995: Associated Context (ASC)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.995\_0: Associated Context - Subfields: Repeating sets of information items (ASC\_0)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 1 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item for the Associated Context field for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (CAN). The value of the CAN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	1 <= ACN <= 255; positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The first information item is the associated segment position (ASP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 <= ASP <= 99; positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.996: Hash (HAS)**

**Description:**

Optional field xx.996, is designed for use in Record types 10 and above with a Field xx.999 storing the biometric data. It is comprised of 64 characters representing hexadecimal values. Thus, each character may be a digit from "0" to "9" or a letter "A" through "F". See the latest version of the Federal Information Processing Standard 180, Secure Hash Standard for information on computing SHA-256 hashes. At the time of this standard's publication, FIPS 180-37 had been published.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.997: Source Representation (SOR)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 13.999: Latent friction ridge image (DATA) was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.997\_0: Source Representation (SOR\_0)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 13.999: Latent friction ridge image (DATA) was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 1 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.997\_1: Source Representation - Source Representation Number (SRN)**

**Description:**

This is the first information item and is mandatory for each Field xx.997. It contains an index to a particular instance of a Type-20 record in the transaction. This same index value appears in the appropriate instance of Record Type-20 as Field 20.021: Source representation number (SRN). The value of the SRN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 <= SRN <= 255; positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:SourceInformation

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.997\_2: Source Representation - Reference Segment Position (RSP)**

**Description:**

The first information item is the reference segment position (RSP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
AN	n/a	n/a	1 <= RSP <= 99; positive integer

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:SourceInformation

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the iris sample/original source/context information was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail

NIEM Element: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z is indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on encoding	Dependent on encoding	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisition Location

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS) However, latitude degree value / LTD and longitude degree value / LGD are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-90 < LTD < 90

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisition Location/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeDegreeValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present. Further, "minutes" values LTM and LGM can only be present if their corresponding "degrees" values are present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	0 <= LTM < 60

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisition Location/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. Also, "seconds" values LTS and LGS can only be present if their corresponding "minutes" value is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 <= LTS < 60

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS) However, latitude degree value / LTD and longitude degree value / LGD are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-180 <= LGD <= 180

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeDegreeValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present. Further, "minutes" values LTM and LGM can only be present if their corresponding "degrees" values are present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	1 <= LGM < 60

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present. Also, "seconds" values LTS and LGS can only be present if their corresponding "minutes" value is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 <= LGS < 60

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-10: Photographic Body Part Imagery (including Face and

**10.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 < ELE < 8848.000; real number

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisition Location/nc:Location3DGeospatialCoordinate

NIEM Element: nc:LocationElevation/nc:MeasureDecimalValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:FacelImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisition Location/nc:Location3DGeospatialCoordinate

NIEM Element: biom:GeodeticDatumCoordinateSystemCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two integers followed by a single letter

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydrant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**10.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html>.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent:

itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-10: Photographic Body Part Imagery (including Face and

**10.999: Body Part Image (DATA)**

**Description:**

This mandatory field contains the image. See Section 7.2 of ANSI/NIST ITL 1-2011 for details.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
B	None, niem- xs:base64Binary	n/a	n/a

Source: ANSI/NIST ITL 1-2011: (Update 2015)

Status: Active

XML Parent: itl:PackagePhotographicBodyPartImageRecord/biom:PhysicalFeatureImage

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**11.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.002: Information Designation Character (IDC)**

**Description:**

Contains the IDC assigned to this Type-11 record as listed in the information item IDC for this record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IDC ≤ 99

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.003: Audio Object Descriptor Code (AOD)**

**Description:**

This mandatory field shall be a numeric entry selected from the attribute code column of Table 89 Audio Object Descriptor. Only one value is allowed and indicates the type of audio object containing the voice recording which is the focus of this Type-11 record. Attribute code 0 indicates that the audio object of this record is a digital voice data file in the Field 11.999: Voice record data / DATA. Attribute code 1 indicates that the audio object is a digital voice data file at the location specified in Field 11.994: External file reference / EFR. Attribute codes 2-4 indicate that the audio object is a physical media object at a location described in Field 11.994. If the Type-11 record contains only metadata (such as in a response to a voice recording submission), attribute code 5 shall be selected. Note that the difference between Attribute code 1 and Attribute code 2 is that 1 indicates a file that is accessible without the physical media object itself – such as being stored at a URL. Code 2 indicates that something that is a physical object like a digital telephone answering machine contains the digital file. Therefore, the physical media object is required to retrieve and analyze the data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
T = integer, X = AudioObjectDescriptorCode Type	None	n/a	0 ≤ AOD ≤ 5

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:AudioObjectDescriptorCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.004: Source Agency (SRC)**

**Description:**

The SRC is a code for a particular agency that is assigned by the implementation domain (such as NORAM, which is maintained by the FBI). It is often not the common name of the organization. This mandatory field denotes the agency that prepared this record. It is not necessarily the agency that is transmitting this transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:BiometricCapture/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.005: Voice Recording Source Organization (VRSO)**

**Description:**

This is an optional field and shall contain information about the person, group, site or agency that created the voice recording pointed to or included in this record. In the case of files created from previous recordings, this is not necessarily the source of the original transduction of the acoustic vocalizations from the person to whom the Type- 11 record pertains.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:RecordingSettingDetail

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.005\_1: Voice Recording Source Organization - Source Organization Type Code (STC)**

**Description:**

The first information item is the source organization type code / STC. It is mandatory if this field is used. There may be no more than one occurrence of this item. A single character describing the site or agency that created the voice recording: U = Unknown, P = Private individual, I = Industry/Commercial, G = Government or O = Other.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	U, P, I, G or O

Code List: SOURCE ORGANIZATION TYPE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingSettingDetail

NIEM Element: biom:RecordingSourceCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.005\_2: Voice Recording Source Organization - Source Organization Name (SON)**

**Description:**

The second information item is the source organization name / SON. It is optional and shall be the name of the group, organization or agency that created the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	400	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingSettingDetail

NIEM Element: biom:SourceOrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.005\_3: Voice Recording Source Organization - Point Of Contact (POC)**

**Description:**

The third information item is the point of contact / POC. It states who composed the voice recording. This is an optional information item that could include the name, telephone number and e-mail address of the person or persons responsible for the creation of the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingSettingDetail

NIEM Element: nc:OrganizationPrimaryContactInformation/nc:ContactInformationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.005\_4: Voice Recording Source Organization - Source Organization Country Code (CSC)**

**Description:**

The fourth information item the country code of the sending country / CSC. It is optional. This is the code of where the voice recording was created – not necessarily the nation of the agency entered in Field 11.993: Source agency name / SAN. All three formats specified in ISO-3166-1 are allowed (Alpha2, Alpha3 and Numeric). A country code is either 2 or 3 characters long. Note that if Field 1.018: Geographic name set / GNS is set to GENC, the entry in this information item is from GENC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Values from ISO-3166-1 or GENC.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingSettingDetail

NIEM Element: biom:RecordingSourceCountry

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.006: Voice Recording Content Descriptor (VRC)**

**Description:**

This field is optional and shall describe the contents of the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:RecordingContentDescriptor

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.006\_1: Voice Recording Content Descriptor - Assigned Voice Indicator (AVI)**

**Description:**

Assigned voice indicator / AVI - Indicates if the voice recording sample was obtained from a known subject. This is mandatory field if this field is used. A = the subject of this record is 'assigned' an identity (whether or not there is biographical information associated with the individual.) Q = this record contains a voice sample of a 'questioned' identity (such as a sample to be compared against a database for identification)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	AVI = A, N or Q

Code List: VOICE RECORDING CONTENT INDICATOR CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingContentDescriptor

NIEM Element: biom:RecordingAssignedVoiceCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.006\_2: Voice Recording Content Descriptor - Speaker Plurality Code (SPC)**

**Description:**

Speaker plurality code / SPC is an optional field which indicates the plurality of speakers represented on voice recording. M = multiple speakers; S = single speaker

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	SPC = M or S

Code List: SPEAKER PLURALITY CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingContentDescriptor

NIEM Element: biom:SpeakerPluralityCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.006\_3: Voice Recording Content Descriptor - Comment (COM)**

**Description:**

Describes methods by which the plurality and nationality of the speakers was determined, along with any supporting text. This is an optional field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingContentDescriptor

NIEM Element: biom:RecordingContentCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.007: Audio Recording Device (AREC)**

**Description:**

This field is optional and shall indicate information about the recording equipment that created the voice recording contained in or pointed to by this record. As recordings or data files may be transcoded from previously recorded or broadcast content, this equipment may or may not be the equipment used to record the original acoustic vocalization of the person to whom the Type-11 record pertains.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:AudioSourceRecorder

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.007\_1: Audio Recording Device - Recording Device Descriptive Text (RDD)**

**Description:**

The first information item is the recording device descriptive text / RDD. It is an optional text field describing the recording device that created the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:AudioSourceRecorder

NIEM Element: biom:DeviceDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.007\_2: Audio Recording Device - Recording Device Make (MAK)**

**Description:**

Describes make of the recording device that created the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:AudioSourceRecorder

NIEM Element: biom:DeviceMakeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.007\_3: Audio Recording Device - Recording Device Model (MOD)**

**Description:**

Contains the make, model and serial number, respectively, for the recording device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:AudioSourceRecorder

NIEM Element: biom:DeviceModelText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.007\_4: Audio Recording Device - Recording Device Serial Number (SER)**

**Description:**

Recording device serial number.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:AudioSourceRecorder

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.008: Acquisition Source (AQS)**

**Description:**

Specifies and describes the acquisition source. Mandatory field if AOD does not equal 5. It shall not appear if AOD = 5.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:SourceAcquisition

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.008\_1: Acquisition Source - Acquisition Source Code (AQC)**

**Description:**

It is a mandatory integer that specifies the source from which the voice in the identified segments was received. It shall be a numeric entry selected from the 'attribute code' from Table 121 Acquisition Source from ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Value from Table 121 Acquisition Source from ANSI/NIST-ITL update 2015.

Code List: ACQUISITION SOURCE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SourceAcquisition

NIEM Element: biom:AcquisitionSourceCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.008\_2: Acquisition Source - Analog To Digital Conversion Description (A2D)**

**Description:**

This field is optional if an analog to digital conversion occurred. Used to enter the make, model and serial number of the analog to digital conversion equipment used, if known. This field should also address parameters used, such as the sampling rate, if known.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SourceAcquisition

NIEM Element: biom:AcquisitionDigitalConversionDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.008\_3: Acquisition Source - Radio Transmission Format Description (FDN)**

**Description:**

Radio transmission format description / FDN - Mandatory if the AQT is 23 or 24 otherwise optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SourceAcquisition

NIEM Element: biom:AcquisitionRadioTransmissionFormatDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.008\_4: Acquisition Source - Acquisition Special Characteristics (AQSC)**

**Description:**

Describes any specific conditions not mentioned in the table.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SourceAcquisition

NIEM Element: biom:AcquisitionSpecialCharacteristicsText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.009: Record Creation Date - Record Creation Date (RCD)**

**Description:**

This mandatory field shall contain the date and time of creation of this Type-11 record. This date will generally be different from the voice recording creation date and may be different from the date at which the acoustic vocalization originally occurred.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	1	1
Character Types	Special Characters	Format	Constraints
AN	None	Dependent on Encoding	YYYYMMDDhhmm

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:RecordCreationDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.010: Total Recording Duration - Voice Recording Creation Date (VRD)**

**Description:**

This optional field shall contain the date and time of creation of the voice recording contained in this Type-11 record (not the original source recording contained in Record Type-20, if it is different from that). If pre-recorded or transcoded materials were used, this date may be different from the date at which the acoustic vocalization originally occurred.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
AN	None	Dependent on Encoding	YYYYMMDDhhmm

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:BiometricCapture

NIEM Element: biom:CaptureDate/nc:DateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.011: Voice Recording Date - Total Recording Duration (TRD)**

**Description:**

This field is optional and gives the total length of the voice recording time for this Type-11 record. The second and third items of this field only apply to digital audio objects, as indicated by a value of 0, 1 or 2 in AOD. At least one of the three information items must be entered if this field is used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:RecordingDurationDetail

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.011\_1: Voice Recording Date - Voice Recording Time (TIM)**

**Description:**

This optional field gives the total time of the voice recording in microseconds. The size of this item is limited to 11 digits, limiting the total time duration of the signal to 99,999 seconds, which is approximately 28 hours.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	11	0	1
Character Types	Special Characters	Format	Constraints
N	Contains integers with no commas or periods	n/a	1 ≤ TIM ≤ 99999999999

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingDurationDetail

NIEM Element: biom:RecordingDuration

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.011\_2: Voice Recording Date - Compressed Bytes (CBY)**

**Description:**

The total number of compressed bytes in the digital voice data file. This information item is optional and applies only to digital voice recordings stored as voice data files. The size of this item is limited to 14 digits, limiting the total size of the voice data file to 99 terabytes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	14	0	1
Character Types	Special Characters	Format	Constraints
N	Contains integers with no commas or periods	n/a	1 ≤ CBY ≤ 99999999999999

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingDurationDetail

NIEM Element: biom:RecordingCompressedBytesQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.011\_3: Voice Recording Date - Total Digital Samples (TSM)**

**Description:**

The number of digital samples in the voice data file after any decompression of the compressed signal. This optional information item applies only to digital voice recordings stored as voice data files. The size of this item is limited to 14 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	14	0	1
Character Types	Special Characters	Format	Constraints
N	Contains integers with no commas or periods	n/a	1 ≤ TSM ≤ 99999999999999

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RecordingDurationDetail

NIEM Element: biom:RecordingSampleQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.012: Physical Media Object (PMO)**

**Description:**

This field is optional and identifies the characteristics of the physical media containing the voice recording. There can be only one physical media object per Type-11 record, but multiple Type-11 records can point to the same physical media object. This field only applies if AOD has an attribute code of 2, 3 or 4. The location of the physical media object is given in EFR.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:PhysicalMediaObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.012\_1: Physical Media Object - Media Type Description (MTD)**

**Description:**

It is mandatory if this field is used and contains text describing the general type of media (e.g., analog cassette tape, reel-to-reel tape, CD, DVD, phonograph record) upon which the voice recording is stored. If an analog media is used for storage, and AQC of Field 11.008: Acquisition source / AQS is 14, then a description of the digital to analog procedure should be noted in Field 11.902: Annotation information / ANN and the reasons for such a conversion noted in COM of this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:PhysicalMediaObject

NIEM Element: biom:MediaCategoryText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.012\_2: Physical Media Object - Recording Speed (RSP)**

**Description:**

This field is optional and gives a numerical value to the speed at which the physical media object must be played to reproduce the voice signal content.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	numbers, with decimals allowed	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:PhysicalMediaObject

NIEM Element: biom:RecordingSpeedRate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.012\_3: Physical Media Object - Recording Speed Measurement Units Description Text (RSU)**

**Description:**

The third information item is recording speed measurement units description text / RSU. Mandatory if the second information item, RSP, is entered and contains text to indicate the units of measure to which RSP refers (such as Rotations per minute). Otherwise, it is not entered.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:PhysicalMediaObject

NIEM Element: biom:RecordingSpeedUnitText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.012\_4: Physical Media Object - Equalization Description (EQD)**

**Description:**

Optional text field that indicates the equalization that should be applied for faithful rendering of the voice recording on the physical media object.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:PhysicalMediaObject

NIEM Element: biom:AudioEqualizationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.012\_5: Physical Media Object - Track Count (TRC)**

**Description:**

Gives the number of tracks on the physical media object.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ TRC ≤ 9999

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:PhysicalMediaObject

NIEM Element: biom:AudioTrackQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.012\_6: Physical Media Object - Speaker Track Number (STK)**

**Description:**

Indicate which tracks carry the voices of the speaker(s). A value of 0 or no entry for this information item indicates that all tracks contain voice data for the speaker(s). (list may have less than or equal to TRC elements)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	9999
Character Types	Special Characters	Format	Constraints
NS	List of up to TRC elements. For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:PhysicalMediaObject

NIEM Element: biom:SpeakerTrackList

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.012\_7: Physical Media Object - Comment (COM)**

**Description:**

This optional field allows for additional comments describing the physical media object.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:PhysicalMediaObject

NIEM Element: biom:MediaCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.013: Container (CONT)**

**Description:**

This conditional field, which need not appear in the record, contains information about the container format that encapsulates the audio data of the electronic file used to carry the voice data in the digital recording. This field is not used if the voice recording is stored on a physical media object as an analog signal – so it should only appear if Audio object descriptor code /AOD is set to 0, 1 or 2. If present, this field overrides Field 11.014: Codec / CDC. There cannot be multiple container formats specified within a single Type-11 record. The container format shall be entered as the appropriate integer code from Table 90 Audio Visual Container Codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:DigitalMediaContainer

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.013\_1: Container - Container Code (CONC)**

**Description:**

The first information item, which is mandatory, is container code / CONC. Information about the container format that encapsulates the audio data of the electronic file used to carry the voice data in the digital recording. A container code of Other (CONC = 2) indicates that the container is given neither in Table 90 Audio Visual Container Codes in ANSI/NIST-ITL update 2015 nor in the external container table and must be specified. If CONC = 2, the Field 11.051: Comment / COM shall be used to describe the container.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Value from Table 90 Audio Visual Container Codes in ANSI/NIST-ITL update 2015.

Code List: CONTAINER CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DigitalMediaContainer

NIEM Element: biom:DigitalMediaContainerFormatCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.013\_2: Container - External Container Reference Code (ECON)**

**Description:**

Contains the external container reference code. Only appears if CONC = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	80	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Code List: Code List Here - [http://biometrics.nist.gov/cs\\_links/standard/ansi\\_2012/Codec.xlsx](http://biometrics.nist.gov/cs_links/standard/ansi_2012/Codec.xlsx) - Includes the fields

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DigitalMediaContainer

NIEM Element: biom:DigitalMediaContainerExternalReferenceCodeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.013\_3: Container - Comment (COM)**

**Description:**

The third information item is comments / COM. It is an optional, unrestricted text string. However, it is required if CONC = 2. It can contain additional information about the container or additional instructions for reconstruction of audio output from the stored digital data. Container parameters shall be specified in this information item when required for unambiguous decoding. This item should include a description of any noise reduction processing or equalization that must be applied to faithfully render the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DigitalMediaContainer

NIEM Element: biom:AudioCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.014: Codec (CDC)**

**Description:**

Gives information about the codec used to encode the voice and audio data in the digital recording. This optional field appears only when AOD is set to 0, 1 or 2. This field is not used if the voice recording is stored on a physical media object as an analog signal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:CodecDetails

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.014\_1: Codec - Codec Code (CODC)**

**Description:**

The first information item is the codec code / CODC. It is mandatory if this field is used and indicates the single codec type used for all audio segments in the record. If the codec code is identified as Other (CODC = 2), the final information item (comments / COM) shall be used to describe the codec. If other Codecs are used (reference here - [http://www.nist.gov/itl/iad/ig/ansi\\_standard.cfm](http://www.nist.gov/itl/iad/ig/ansi_standard.cfm)) then use codec 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Value from Table 91 Codec Type Codes in ANSI/NIST-ITL update 2015.

Code List: CODEC TYPE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:CodecCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.014\_2: Codec - Sampling Rate Number (SRTN)**

**Description:**

Indicates the number of digital samples per second that represent a second of analog voice data upon conversion to an acoustic signal. The value of 0 shall only be used to indicate unknown or variable sampling rate. The sampling rate is expressed in Hz and must be an integer value. Acceptable values are between 1 and 100,000,000 Hz, but unknown or variable sampling rates shall be given the value of 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
N	positive integer, no commas	n/a	0 ≤ SRTN ≤ 100000000

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:SamplingRate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.014\_3: Codec - Bit Depth Count (BITD)**

**Description:**

Indicates the number of bits that are used to represent a single digital sample of voice data. Encoders of unknown or variable bit depth shall be given the value of 0. Changes to the bit depth should be logged in Field 98.900: Audit log / ALF or Field 11.902: Annotation information / ANN audit logs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ BITD ≤ 1024, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:RecordingBitDepthValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.014\_4: Codec - Endian Code (ENDC)**

**Description:**

Indicates which byte goes first for digital samples containing two or more bytes. The values for ENDC are 0 = big and 1 = little. ENDC is optional and ignored for digital samples that do not contain two or more integer multiples of bytes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	ENDC = 0 or 1

Code List: ENDIAN CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:RecordingEndianCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.014\_5: Codec - Numeric Format (NFMT)**

**Description:**

Integer and floating point representations.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
AN		n/a	NFMT = positive integer with an optional letters s, b, or d following it

Code List: NUMERIC FORMAT CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:NumericFormatText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.014\_6: Codec - Channel Count (CHC)**

**Description:**

Integer of number of channels of data represented in the digital voice data file. The number of channels must be between 1 and 9999, inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ CHC ≤ 9999, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:RecordingChannelsQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.014\_7: Codec - External Codec Reference Code (ECOD)**

**Description:**

It contains the 'reference code' from the table of codecs available at [http://www.nist.gov/itl/iad/ig/ansi\\_standard.cfm](http://www.nist.gov/itl/iad/ig/ansi_standard.cfm). If the codec is not listed in the external table, enter the name and description of the codec in COM. It can only appear if CODC = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	80	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Code List: Table of codecs available at [http://www.nist.gov/itl/iad/ig/ansi\\_standard.cfm](http://www.nist.gov/itl/iad/ig/ansi_standard.cfm).

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:CodecExternalReferenceCodeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.014\_8: Codec - Comment (COM)**

**Description:**

The eighth information item is comments / COM. It is an unrestricted textstring. It can contain additional information about the codec or additional instructions for reconstruction of audio output from the stored digital data. Codec parameters shall be specified in this information item when required for unambiguous decoding. This item should include a description of any noise reduction processing or equalization that must be applied to faithfully render the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:CodecDetails

NIEM Element: biom:CodecCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.021: Redaction (RED)**

**Description:**

It indicates whether the voice recording contains overwritten or erased sections intended to remove, without altering the relative timings within, or the length of, the segment, semantic content deemed not suitable for transmission or storage. This field is not to be used to indicate that audio content has been snipped with the alteration of the relative timings in, or length of, the recording. This field may be present to indicate that redaction has or has not occurred, even if Field 11.022: Redaction diary / RDD is not present in the record to provide timings and tracks for the affected segments (if redaction did occur).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:RedactionInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.021\_1: Redaction - Redaction Indicator (RDI)**

**Description:**

The first information item is the redaction indicator / RDI. It is mandatory if this field is present in the record. Single character redaction indicator code. A value of 0 indicates no redaction occurred and a value of 1 indicates that redaction has occurred. A value of 2 indicates that the organization creating this record is not able to assert or does not assert that redaction has occurred or not occurred.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	RDI = 0, 1 or 2

Code List: REDACTION INDICATOR CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionInformation

NIEM Element: biom:ProcessingIndicatorCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.021\_2: Redaction - Redaction Authority Organization Name (RDA)**

**Description:**

Contains information about the agency that directed, authorized or performed the redaction. It is an optional field, but can only be present if RDI = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionInformation

NIEM Element: biom:ProcessingAuthorityText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.021\_3: Redaction - Comment (COM)**

**Description:**

It is an optional unrestricted text string that may contain text information about the redactions affecting the stored voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionInformation

NIEM Element: biom:ProcessingCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.022: Redaction Diary (RDD)**

**Description:**

This optional field indicates that redaction has occurred and lists the timings within the voice recording of redacted (overwritten) audio segments. This field accommodates up to 600,000 redactions. It may be present even if Field 11.021: Redaction / RED is not in the record. If Field 11.021: Redaction / RED is present in this instance of the record, then this field shall only appear if the redaction indicator / RDI is set to a value of 1. RDD isn't required to be present when RDI is set to 1 – although it is highly recommended that it be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:RedactionDiaryInformation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.022\_0: Redaction Diary - Subfields: Repeating Sets Of Information Items (RDD\_0)**

**Description:**

This field contains subfields that locate the segments within the recording of this Type- 11 record that may be of interest for investigatory purposes but are not focused upon speech. If Field 11.027 is included in the record, then this field shall be present only if DII = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.022\_1: Redaction Diary - Segment Identifier (SID)**

**Description:**

Present in each subfield and uniquely numbers the segment to which the following items in the subfield apply. The number of redactions is limited to 600,000.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	1
Character Types	Special Characters	Format	Constraints
N	Contains positive integer, no commas	n/a	1 ≤ SID ≤ 600000

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionDiaryInformation

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.022\_2: Redaction Diary - Track And Channel Number List (TRK)**

**Description:**

A track and channel number list. It is mandatory if TRC in Field 11.012: Physical media object / PMO or CHC of Field 11.014: Codec / CDC is greater than one and lists all tracks or channels on the recording to which the segment identifier applies. This information item may appear even if neither TRC nor CHC are present in the record. No value in this list should be greater than the value of TRC or CHC, whichever applies.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	9999
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	List of non-negative integers

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionDiaryInformation/biom:TrackChannelList

NIEM Element: biom:TrackID

XML Min/Max: 1 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.022\_3: Redaction Diary - Relative Start Time (RST)**

**Description:**

It indicates in microseconds the time of the start of the redaction relative to the absolute beginning of the recording. Redactions from the same track of the audio object identified in Field 11.003: Audio object descriptor code /AOD should not overlap. If the Type-11 record refers to an analog recording, the method of determining the start time shall be given in the comment item of this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
N	positive integer	n/a	1 ≤ RST

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionDiaryInformation

NIEM Element: biom:RelativeStartTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.022\_4: Redaction Diary - Relative End Time (RET)**

**Description:**

It indicates in microseconds the time of the end of the redaction relative to the absolute beginning of the recording. It is a mandatory integer for the redaction identified by SID within each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
N	positive integer	n/a	RET > RST

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionDiaryInformation

NIEM Element: biom:RelativeEndTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.022\_5: Redaction Diary - Comment (COM)**

**Description:**

Contains an unrestricted text string that allows for comments of any type to be made on a segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:RedactionDiaryInformation

NIEM Element: biom:DiaryCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.023: Discontinuities (DIS)**

**Description:**

This field is optional and indicates by its presence that the voice recording referenced in this Type-11 record has had segments removed or that signals are not present for another reason. This field is used to indicate post-recording removal (cutting) of a signal or non-presence of a useful signal, for any reason, from the original recording of the acoustic vocalizations in a way that disrupts time references.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:DiscontinuityInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.023\_1: Discontinuities - Discontinuity Indicator (DCI)**

**Description:**

Code that indicates whether the voice recording contains temporal discontinuities. A value of 0 indicates that there are no discontinuous signals on the recording and a value of 1 indicates that there are discontinuities. A value of 2 indicates that the organization creating this record is not able to assert or does not assert that there are or are not discontinuities in the recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	non-negative integer	n/a	SGL = 0 , 1 or 2

Code List: DISCONTINUITY INDICATOR CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityInformation

NIEM Element: biom:ProcessingIndicatorCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.023\_2: Discontinuities - Cutting Authority Organization Name (CTA)**

**Description:**

Contains information about the agency that performed a post-processing cutting upon the original recording (removing signal content). Agencies undertaking postprocessing cutting activities should log their actions in Field 98.900: Audit log / ALF and/or Field 11.902: Annotation information / ANN of this record. Item shall only appear if DCI = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityInformation

NIEM Element: biom:ProcessingAuthorityText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.023\_3: Discontinuities - Comments (COM)**

**Description:**

Optional unrestricted text string that may contain text information about the snip activities affecting the voice recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityInformation

NIEM Element: biom:ProcessingCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.024: Discontinuities Diary - Discontinuities Diary (DCD)**

**Description:**

This optional field allows the documentation of discontinuities in the signal. There may be up to 600,000 segments, each registered in an individual subfield. If there are no discontinuities (DCI = 0 in Field 11.023: Discontinuities / DIS), then all of the data in the voice recording shall be considered as being in toto and this field shall not be present in this instance of the record. This field may be present even if Field 11.023: Discontinuities / DIS is not present in the record. This field need not be present if Field 11.023: Discontinuities / DIS is present in the record and DCI = 1, but it is highly recommended in such a case that this field be present. A very practical use of DCD is when an original recording is stored in a Type-20 record and segments relating to a single speaker are combined together and conveyed in a Type-11 record. DCD then indicates the locations of the temporal discontinuities within the resulting Type-11 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:DiscontinuityDiaryInformation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.024\_0: Discontinuities Diary - Subfields: Repeating Sets Of Information Items (DCD\_0)**

**Description:**

This optional field allows the documentation of discontinuities in the signal. This field need not be present if Field 11.023: Discontinuities / DIS is present in the record and DCI = 1, but it is highly recommended in such a case that this field be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.024\_1: Discontinuities Diary - Segment Identifier (SID)**

**Description:**

Uniquely numbers the discontinuity to which the following items in the subfield apply. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	1
Character Types	Special Characters	Format	Constraints
N	positive integer, no commas	n/a	1 ≤ SID ≤ 600000

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityDiaryInformation

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.024\_2: Discontinuities Diary - Track And Channel Number List (TRK)**

**Description:**

Contains the Track and Channel Number List. It is mandatory if TRC in Field 11.012: Physical media object / PMO or CHC of Field 11.014: Codec / CDC is greater than one and lists all tracks or channels on the recording to which SID applies. No value in this list should be greater than the value of TRC or CHC, whichever applies.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	9999
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	List of non-negative integers

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityDiaryInformation/biom:TrackChannelList

NIEM Element: biom:TrackID

XML Min/Max: 1 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.024\_3: Discontinuities Diary - Relative Start Time (RST)**

**Description:**

It indicates in microseconds the time of the start of the discontinuity relative to the beginning of the voice recording contained in this Type-11 record. It is mandatory for every discontinuity identified by an SID.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RST, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityDiaryInformation

NIEM Element: biom:RelativeStartTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.024\_4: Discontinuities Diary - Relative End Time (RET)**

**Description:**

It indicates in microseconds the time of the end of the discontinuity relative to the beginning of the voice recording contained in this Type-11 record. It is mandatory for every discontinuity identified by an SID. If RET > RST, that indicates that the content has been removed or is not present, but not redacted (masked).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	RET ≥ RST, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityDiaryInformation

NIEM Element: biom:RelativeEndTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.024\_5: Discontinuities Diary - Comment (COM)**

**Description:**

An unrestricted text string that allows for comments of any type to be made about a discontinuity.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:DiscontinuityDiaryInformation

NIEM Element: biom:DiaryCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.025: Vocal Content (VOC)**

**Description:**

This optional field indicates whether the voice recording content has been diarized, meaning that time markings are included in Field 11.026: Vocal content diary / VCD to indicate the speech segments of interest pertaining to the subject of this Type-11 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:VocalContentInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.025\_1: Vocal Content - Diarization Indicator (DII)**

**Description:**

Code that indicates whether the voice recording is accompanied by a segment diary in Field 11.026 indicating speech segments from the voice signal subject of the Type-11 record. It is mandatory if this field is used. A value of 0 indicates that there is no accompanying diary and a value of 1 indicates the presence of Field 11.026: Vocal content diary / VCD.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	DII = 0 or 1

Code List: DISCONTINUITY INDICATOR CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentInformation

NIEM Element: biom:DiarizationIndicatorCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.025\_2: Vocal Content - Diarization Authority Organization Name (DAU)**

**Description:**

An optional text field of up to 300 characters containing information about the agency that performed the diarization. Agencies undertaking diarization activities on the original speech should log their actions by appending to this item and noting the change of field contents in the Type-98 record and/or Field 11.902: Annotation information / ANN of this record. This information item shall only appear if DII = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentInformation

NIEM Element: biom:ProcessingAuthorityText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.025\_3: Vocal Content - Comments (COM)**

**Description:**

This optional field contains text information about the diarization activities undertaken on the voice data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentInformation

NIEM Element: biom:ProcessingCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026: Vocal Content Diary (VCD)**

**Description:**

This field contains subfields that locate the segments within the voice recording of this Type-11 record that are associated with a single speaker – the subject of the record (not necessarily the subject of the transaction). Contains text information about the diarization activities undertaken on the voice data. If Field 11.025 is included in the record, then this field shall be present only if DII = 1. This field may be used for individual snips, as well as concatenated snips.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:VocalContentDiaryInformation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.026\_0: Vocal Content Diary - Subfields: Repeating Sets Of Information Items (VCD\_0)**

**Description:**

This field contains subfields that locate the segments within the voice recording of this Type-11 record that are associated with a single speaker – the subject of the record (not necessarily the subject of the transaction). Contains text information about the diarization activities undertaken on the voice data. If Field 11.025 is included in the record, then this field shall be present only if DII = 1. This field may be used for individual snips, as well as concatenated snips.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026\_1: Vocal Content Diary - Segment Identifier (SID)**

**Description:**

Uniquely numbers the discontinuity to which the following items in the subfield apply. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	1
Character Types	Special Characters	Format	Constraints
N	no commas	n/a	1 ≤ SID ≤ 600000, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.026\_2: Vocal Content Diary - Track And Channel Number List (TRK)**

**Description:**

Contains the Track and Channel Number List. It is mandatory if TRC in Field 11.012: Physical media object / PMO or CHC of Field 11.014: Codec / CDC is greater than one and lists all tracks or channels on the recording to which SID applies. No value in this list should be greater than the value of TRC or CHC, whichever applies.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	9999
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	Contains list of non-negative integers

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation/biom:TrackChannelList

NIEM Element: biom:TrackID

XML Min/Max: 1 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026\_3: Vocal Content Diary - Relative Start Time (RST)**

**Description:**

It indicates in microseconds the time of the start of the discontinuity relative to the beginning of the voice recording contained in this Type-11 record. It is mandatory for every discontinuity identified by an SID.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	11	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RST, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:RelativeStartTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.026\_4: Vocal Content Diary - Relative End Time (RET)**

**Description:**

It indicates in microseconds the time of the end of the discontinuity relative to the beginning of the voice recording contained in this Type-11 record. It is mandatory for every discontinuity identified by an SID. If RET > RST, that indicates that the content has been removed or is not present, but not redacted (masked).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	RET > RST, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:RelativeEndTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026\_5: Vocal Content Diary - Comment (COM)**

**Description:**

Allows for comments of any type to be made on a segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:DiaryCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.026\_6: Vocal Content Diary - Tagged Data (TDT)**

**Description:**

This optional field gives the date indicated on the original, contemporaneous capture of the voice recording in the segment identified in this Type-11 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	YYYYMMDD

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:TagStartDateTime/nc:DateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026\_7: Vocal Content Diary - Tagged Start Time (TST)**

**Description:**

Time tagged on the original, contemporaneous capture of the recording in the segment identified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	YYYYMMDDhhmm

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:TagStartDateTime/nc:DateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.026\_8: Vocal Content Diary - Tagged End Time (TET)**

**Description:**

Time tagged on original, contemporaneous capture of the data at the end of the segment identified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	YYYYMMDDhhmm

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:TagEndTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026\_9: Vocal Content Diary - Original Recording Date (ORD)**

**Description:**

Date of the original, contemporaneous capture of the voice recording in the segment identified. Optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	YYYYMMDDhhmm

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:OriginalRecordingDate/nc:Date

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.026\_10: Vocal Content Diary - Segment Recording Start Time (SRT)**

**Description:**

Local start time of the original, contemporaneous capture of the recording in the segment identified. This item may be different from the value of TST if the tag is determined to be inaccurate.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	YYYYMMDDhhmm

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:SegmentRecordingStartDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026\_11: Vocal Content Diary - Segment Recording End Time (END)**

**Description:**

Local end time of the original, contemporaneous capture of the recording in the segment identified. This item may be different from the value of TST if the tag is determined to be inaccurate.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	YYYYMMDDhhmm

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:SegmentRecordingEndDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.026\_12: Vocal Content Diary - Time Source Description Text (TMD)**

**Description:**

Reference for the values used in ORD, SRT and END.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:TimeSourceDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.026\_13: Vocal Content Diary - Timing Comments (TCOM)**

**Description:**

Comments of any type to be made on the timings of the segment recording including the perceived accuracy of the values of ORD, SRT and END.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalContentDiaryInformation

NIEM Element: biom:TimeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.027: Other Content - Other Content (OCON)**

**Description:**

Indicates whether the recording content has been diarized, meaning that time markings are included, in Field 11.028: Other content diary / OCD In order to indicate the segments of the recording that may contain sounds other than the voice of the subject of the record that could assist in the investigation (such as the sound of an automobile accident in a recording).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Code List: DISCONTINUITY INDICATOR CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:OtherContentInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.027\_1: Other Content - Diarization Indicator (DII)**

**Description:**

Code that indicates whether the voice recording is accompanied by a segment diary in Field 11.028 indicating speech segments from the voice signal subject of the Type-11 record. It is mandatory if this field is used. A value of 0 indicates that there is no accompanying diary and a value of 1 indicates the presence of Field 11.026: Vocal content diary / VCD.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	DII = 0 or 1

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentInformation

NIEM Element: biom:DiarizationIndicatorCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.027\_2: Other Content - Diarization Authority (DAU)**

**Description:**

An optional text field of up to 300 characters containing information about the agency that performed the diarization. Agencies undertaking diarization activities on the original speech should log their actions by appending to this item and noting the change of field contents in the Type-98 record and/or Field 11.902: Annotation information / ANN of this record. This information item shall only appear if DII = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentInformation

NIEM Element: biom:ProcessingAuthorityText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.027\_3: Other Content - Comments (COM)**

**Description:**

This optional field contains text information about the diarization activities undertaken on the voice data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentInformation

NIEM Element: biom:ProcessingCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.028: Other Content Diary (OCD)**

**Description:**

This field contains subfields that locate the segments within the recording of this Type-11 record that may be of interest for investigatory purposes but are not focused upon speech. Although Field 11.027: Other content / OCON need not be present in the record if this field is included in the record, it is highly recommended that it be present. If Field 11.027 is included in the record, then this field shall be present only if DII = 1. This record type accommodates up to 600,000 segments.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:OtherContentDiaryInformation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.028\_0: Other Content Diary - Subfields: Repeating Sets Of Information Items (OCD\_0)**

**Description:**

This field contains subfields that locate the segments within the recording of this Type-11 record that may be of interest for investigatory purposes but are not focused upon speech. Although Field 11.027: Other content / OCON need not be present in the record if this field is included in the record, it is highly recommended that it be present. If Field 11.027 is included in the record, then this field shall be present only if DII = 1. This record type accommodates up to 600,000 segments.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.028\_1: Other Content Diary - Segment Identifier (SID)**

**Description:**

Uniquely numbers the discontinuity to which the following items in the subfield apply. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	1
Character Types	Special Characters	Format	Constraints
N	no commas	n/a	1 ≤ SID ≤ 600000, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.028\_2: Other Content Diary - Track And Channel Number List (TRK)**

**Description:**

Contains the Track and Channel Number List. It is mandatory if TRC in Field 11.012: Physical media object / PMO or CHC of Field 11.014: Codec / CDC is greater than one and lists all tracks or channels on the recording to which SID applies. No value in this list should be greater than the value of TRC or CHC, whichever applies.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	9999
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	Contains list of non-negative integers

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation/biom:TrackChannelList

NIEM Element: biom:TrackID

XML Min/Max: 1 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.028\_3: Other Content Diary - Relative Start Time (RST)**

**Description:**

It indicates in microseconds the time of the start of the discontinuity relative to the beginning of the voice recording contained in this Type-11 record. It is mandatory for every discontinuity identified by an SID.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	11	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RST, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:RelativeStartTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.028\_4: Other Content Diary - Relative End Time (RET)**

**Description:**

It indicates in microseconds the time of the end of the discontinuity relative to the beginning of the voice recording contained in this Type-11 record. It is mandatory for every discontinuity identified by an SID. If RET > RST, that indicates that the content has been removed or is not present, but not redacted (masked).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	RET > RST, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:RelativeEndTimeInMSValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.028\_5: Other Content Diary - Comment (COM)**

**Description:**

Allows for comments of any type to be made on a segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:DiaryCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.028\_6: Other Content Diary - Tagged Data (TDT)**

**Description:**

This optional field gives the date indicated on the original, contemporaneous capture of the voice recording in the segment identified in this Type-11 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	Dependent on Encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:TagStartDateTime/nc:DateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.028\_7: Other Content Diary - Tagged Start Time (TST)**

**Description:**

Time tagged on the original, contemporaneous capture of the recording in the segment identified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	Dependent on Encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:TagStartDate/nc:DateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.028\_8: Other Content Diary - Tagged End Time (TET)**

**Description:**

Time tagged on original, contemporaneous capture of the data at the end of the segment identified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	Dependent on Encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:TagEndDate/nc:DateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.028\_9: Other Content Diary - Original Recording Date (ORD)**

**Description:**

Date of the original, contemporaneous capture of the voice recording in the segment identified. Optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	Dependent on Encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:OriginalRecordingDate/nc:Date

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.028\_10: Other Content Diary - Segment Recording Start Time (SRT)**

**Description:**

Local start time of the original, contemporaneous capture of the recording in the segment identified. This item may be different from the value of TST if the tag is determined to be inaccurate.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	Dependent on Encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:SegmentRecordingStartDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.028\_11: Other Content Diary - Segment Recording End Time (END)**

**Description:**

Local end time of the original, contemporaneous capture of the recording in the segment identified. This item may be different from the value of TST if the tag is determined to be inaccurate.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on Encoding	Dependent on Encoding	0	1
Character Types	Special Characters	Format	Constraints
Dependent on Encoding		Dependent on Encoding	Dependent on Encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:SegmentRecordingEndTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.028\_12: Other Content Diary - Time Source Description Text (TMD)**

**Description:**

Reference for the values used in ORD, SRT and END.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	300	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:TimeSourceDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.028\_13: Other Content Diary - Timing Comments (TCOM)**

**Description:**

Comments of any type to be made on the timings of the segment recording including the perceived accuracy of the values of ORD, SRT and END.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:OtherContentDiaryInformation

NIEM Element: biom:TimeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.032: Vocal Segment Geographical Information (SGEO)**

**Description:**

Gives the geographical location of the primary subject of the Type-11 record at the beginning of that segment. If Field 11.025: Vocal content / VOC is present, then this field shall only be present if DII = 1. This field shall only be present if Field 11.026: Vocal content diary / VCD is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:SegmentGeographicalLocation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: n/a      DoD EBTS 2.0: n/a      DoD EBTS 3.0: n/a      DoD EBTS 4.1: n/a

Type-11: Forensic and Investigatory Voice Data

**11.032\_0: Vocal Segment Geographical Information - Subfield: Repeating Sets of Information Items (SGEO\_0)**

**Description:**

Gives the geographical location of the primary subject of the Type-11 record at the beginning of that segment. If Field 11.025: Vocal content / VOC is present, then this field shall only be present if DII = 1. This field shall only be present if Field 11.026: Vocal content diary / VCD is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: biom:SegmentIDList

XML Min/Max: 1 / 1

DoD EBTS 1.2: n/a      DoD EBTS 2.0: n/a      DoD EBTS 3.0: n/a      DoD EBTS 4.1: n/a

**11.032\_01: Vocal Segment Geographical Information - Segment Identifier List (SIL)**

**Description:**

Segment identifiers to which the values in this subfield pertain. A value of 0 in this subfield indicates the segment geographical information in this subfield shall be considered the default value for all segments not specifically identified in other occurrences of this subfield. If multiple segments are identified, they are designated as integers in a list. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	600000
Character Types	Special Characters	Format	Constraints
NS	list of non-negative integers For Traditional encoding, the separator character "]" is used between elements. This is not applicable to XML encoding.	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/biom:SegmentIDList

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.032\_02: Vocal Segment Geographical Information - Segment Cell Phone Tower Code (SCT)**

**Description:**

Identifies the cell phone tower, if any, that relayed the audio data at the start of the segment or segments referred to in this subfield. Optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: biom:CellPhoneTowerCodeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.032\_03: Vocal Segment Geographical Information - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign	n/a	-90 ≤ LTD ≤ 90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.032\_04: Vocal Segment Geographical Information - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**11.032\_05: Vocal Segment Geographical Information - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.032\_06: Vocal Segment Geographical Information - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign, Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeDegreeValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.032\_07: Vocal Segment Geographical Information - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.032\_08: Vocal Segment Geographical Information - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.032\_09: Vocal Segment Geographical Information - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 ≤ ELE ≤ 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate

NIEM Element: nc:LocationElevation/nc:MeasureDecimalValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.032\_10: Vocal Segment Geographical Information - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation/nc:Location3DGeospatialCoordinate

NIEM Element: biom:GeodeticDatumCoordinateSystemCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.032\_11: Vocal Segment Geographical Information - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.032\_12: Vocal Segment Geographical Information - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.032\_13: Vocal Segment Geographical Information - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: mo:MGRSCoordinateStringText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.032\_14: Vocal Segment Geographical Information - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.032\_15: Vocal Segment Geographical Information - Geographic Coordinate Other System Identifier (or Landmark) (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydrant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.032\_16: Vocal Segment Geographical Information - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html> .

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentGeographicalLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.033: Vocal Segment Quality Values (SQV)**

**Description:**

If Field 11.025: Vocal content / VOC is present, then this field shall only be present if DII = 1. This field shall only be present if Field 11.026: Vocal content diary / VCD is present. If segments have multiple quality values based on different types of quality assessments, a separate subfield is entered for each assessment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:VocalSegmentQualityValue

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.033\_0: Vocal Segment Quality Values - Subfield: Repeating Sets of Information Items (SQV\_0)**

**Description:**

Quality values based on different types of quality assessments, Present if DII = 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalSegmentQualityValue

NIEM Element: biom:SegmentIDList

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.033\_1: Vocal Segment Quality Values - Segment Identifier List (SIL)**

**Description:**

Segment identifiers to which the values in this subfield pertain. A value of 0 in this subfield indicates the segment geographical information in this subfield shall be considered the default value for all segments not specifically identified in other occurrences of this subfield. If multiple segments are identified, they are designated as integers in a list. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	600000
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalSegmentQualityValue/biom:SegmentIDList

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.033\_2: Vocal Segment Quality Values - Quality Value (QVU)**

**Description:**

Indicate the segment quality value between 0 (low quality) and 100 (high quality). A value of 255 indicates that quality was not assessed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	integer	n/a	0 ≤ QVU ≤ 100 or = 255

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalSegmentQualityValue

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.033\_3: Vocal Segment Quality Values - Algorithm Vendor Identification (QAV)**

**Description:**

Specifies the ID of the vendor of the quality assessment algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four characters. A value of 0000 indicates a vendor without a designation by IBIA. In such case, an entry shall be made in COM of this subfield describing the algorithm and its owner/vendor.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalSegmentQualityValue

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.033\_4: Vocal Segment Quality Values - Algorithm Product Identification (QAP)**

**Description:**

Specifies a numeric product code assigned by the vendor of the quality assessment algorithm. Indicates which of the vendor's algorithms was used in the calculation of the quality score. A value of 0 indicates a vendor without a designation by IBIA. In such case, an entry shall be made in COM of this subfield describing the algorithm and its owner/vendor.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	integer	n/a	0 ≤ QAP ≤ 65534

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalSegmentQualityValue

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.033\_5: Vocal Segment Quality Values - Comments (COM)**

**Description:**

Provides information about the quality assessment process, including a description of any unregistered quality assessment algorithms used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalSegmentQualityValue

NIEM Element: biom:VocalSegmentQualityCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.034: Vocal Collision Identifier (VCI)**

**Description:**

Field indicating that a vocal collision (two or more persons talking at once) occurs within the segment. If Field 11.025: Vocal content / VOC is present, then this field shall only be present if DII = 1. This field shall only be present if Field 11.026: Vocal content diary / VCD is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
N	non-negative integer	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:VocalCollisionIDList

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.034\_0: Vocal Collision Identifier - Subfield: Repeating Sets Of Information Items (VCI\_0)**

**Description:**

If Field 11.025: Vocal content / VOC is present, then this field shall only be present if DII = 1. This field shall only be present if Field 11.026: Vocal content diary / VCD is present. This optional field indicates that a vocal collision (two or more persons talking at once) occurs within the segment. This field has repeating values. Each value represents a separate segment. There may be up to 600,000 segments identified in this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	600000
Character Types	Special Characters	Format	Constraints
N	list of non-negative integers For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.035: Vocal Segment Processing Priority (PPY)**

**Description:**

This optional field only appears if Field 11.025: Vocal content / VOC exists in this record. Segments not identified should be given the lowest priority.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:SegmentProcessingPriorityInformation

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.035\_0: Vocal Segment Processing Priority - Subfield: Repeating Sets Of Information Items (PPY\_0)**

**Description:**

Only appears if Field 11.025: Vocal content / VOC exists in this record. Segments not identified should be given the lowest priority.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentProcessingPriorityInformation

NIEM Element: biom:SegmentIDList

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.035\_1: Vocal Segment Processing Priority - Segment Identifier List (SIL)**

**Description:**

Segment identifiers to which the values in this subfield pertain. A value of 0 in this subfield indicates the segment geographical information in this subfield shall be considered the default value for all segments not specifically identified in other occurrences of this subfield. If multiple segments are identified, they are designated as integers in a list. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	600000
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentProcessingPriorityInformation/biom:SegmentIDList

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.035\_2: Vocal Segment Processing Priority - Priority (PTY)**

**Description:**

Indicates the priority with which the segments identified in this subfield should be processed. A value of 1 will indicate the highest priority and 9 the lowest. This field is mandatory.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	positive integer	n/a	1 ≤ PTY ≤ 9

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentProcessingPriorityInformation

NIEM Element: biom:ProcessingPriorityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.036: Vocal Segment Content Description (VSCD)**

**Description:**

This optional field shall only appear if Field 11.025: Vocal content / VOC exists in the record. Gives an assessment of the content of the voice data within the identified segment and includes provision for semantic transcripts, phonetic transcriptions and translations of the segment. At least one of the information items in addition to SIL shall be present in this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:SegmentContentInformation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.036\_0: Vocal Segment Content Description - Subfield: Repeating Sets Of Information Items (VSCD\_0)**

**Description:**

Gives an assessment of the content of the voice data within the identified segment and includes provision for semantic transcripts, phonetic transcriptions and translations of the segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.036\_1: Vocal Segment Content Description - Segment Identifier List (SIL)**

**Description:**

Segment identifiers to which the values in this subfield pertain. A value of 0 in this subfield indicates the segment geographical information in this subfield shall be considered the default value for all segments not specifically identified in other occurrences of this subfield. If multiple segments are identified, they are designated as integers in a list. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	600000
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation/biom:SegmentIDList

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.036\_2: Vocal Segment Content Description - Transcript Text (TRN)**

**Description:**

Contains a semantic transcription of the segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:SegmentTranscriptText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.036\_3: Vocal Segment Content Description - Transcript Language (LNG)**

**Description:**

The third information item is the transcript language / LNG. It is optional but shall only be in the subfield if TRN is present in the subfield. It states the 3 character ISO 639-3 code for the language of the translation included in this subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	Value from ISO-639-3.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:SegmentTranscriptLanguageCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.036\_4: Vocal Segment Content Description - Phonetic Transcript Text (PTT)**

**Description:**

Contains a phonetic transcription of the segment. This may be informal (based upon the language conventions of the record creator), the International Phonetic Alphabet, the Americanist phonetic notation, or other system. The IPA extensions in Unicode, such as ʏ or ɤ or ɹ, can thus be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	IPA extensions in Unicode	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:SegmentPhoneticTranscriptText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.036\_5: Vocal Segment Content Description - Phonetic Transcript Convention (PTC)**

**Description:**

States the phonetic transcript convention. Present only if PTT is present in the subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:PhoneticTranscriptConventionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.036\_6: Vocal Segment Content Description - Translation Text (TLT)**

**Description:**

Contains a translation of the segment into a language other than the one in which the original segment was spoken. If a text is translated into multiple languages, a separate subfield is generated for each language.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:SegmentTranslationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.036\_7: Vocal Segment Content Description - Translation Language (TLG)**

**Description:**

Language of the translation. Present only if TRN is present. It states the 3 character ISO 639-3 code for the language of the translation included in this subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	Value from ISO-639-3.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:SegmentTranslationLanguageCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.036\_8: Vocal Segment Content Description - Segment Content Comment (COM)**

**Description:**

Contains comments on the content of the segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:SegmentContentCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.036\_9: Vocal Segment Content Description - Transcript Authority Comment Text (TAC)**

**Description:**

States the authority providing the transcription, translation or comments in TRN, PTT, TLT or COM. If an automated process was used to develop the transcript, information about the process (i.e., the automated algorithm used) should be stated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentContentInformation

NIEM Element: biom:TranscriptAuthorityCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037: Vocal Segment Speaker Characteristics (SCC)**

**Description:**

Gives an assessment of the characteristics of the voice within the segment, including intelligibility, emotional state and impairment. This field shall only appear if Field 11.025: Vocal content / VOC exists in the record. At least one of the information items in addition to SIL shall be present in this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:SegmentSpeakerCharacteristicsInformation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.037\_0: Vocal Segment Speaker Characteristics - Subfield: Repeating Sets Of Information Items (SCC\_0)**

**Description:**

Gives an assessment of the characteristics of the voice within the segment, including intelligibility, emotional state and impairment. This field shall only appear if Field 11.025: Vocal content / VOC exists in the record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_1: Vocal Segment Speaker Characteristics - Segment Identifier List (SIL)**

**Description:**

Segment identifiers to which the values in this subfield pertain. A value of 0 in this subfield indicates the segment geographical information in this subfield shall be considered the default value for all segments not specifically identified in other occurrences of this subfield. If multiple segments are identified, they are designated as integers in a list. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	600000
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements.	n/a	List of non-negative integers

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation/biom:SegmentIDList

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

11.037\_2: Vocal Segment Speaker Characteristics - Speaker List (SPL)

**Description:**

List of unique identifiers for the speakers in the segments identified in SIL. List may have up to 9999 speakers per segment grouping.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	9999
Character Types	Special Characters	Format	Constraints
U	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	List of non-negative integers

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation/biom:SpeakerList

NIEM Element: biom:SpeakerID

XML Min/Max: 1 / 9999

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.037\_3: Vocal Segment Speaker Characteristics - Type-2 Record Cross Reference (T2C)**

**Description:**

Contains the IDC value of the Type-2 record that contains relevant biographic information and other data concerning the subject of this instance of the record. This list may have up to 98 references (there is a maximum of 100 records in a transaction; Type-1 is required and this record has an IDC value, leaving a maximum of 98 other possible records).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	98
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	1 ≤ T2C value ≤ 99, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation/biom:Type2CrossReferenceList

NIEM Element: biom:Type2CrossReferenceID

XML Min/Max: 1 / 98

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_4: Vocal Segment Speaker Characteristics - Impairment Level Number (IMP)**

**Description:**

Indicates a subjective, observed level of neurological diminishment, whether from fatigue, disease, trauma, or the influence of medication/substances, across the speech segments identified. An integer between 0 (no noticed impairment) and 5 (significant), inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IMP ≤ 5, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:ImpairmentValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.037\_5: Vocal Segment Speaker Characteristics - Dominant Spoken Language Code (DSL)**

**Description:**

3 character ISO 639-3 code for the dominant language in the segments identified in this subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	Value from ISO-639-3.

Code List: 3 character ISO 639-3 code for the language of the translation included in this subfield.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:DominantSpokenLanguageCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_6: Vocal Segment Speaker Characteristics - Language Proficiency Scale Number (LPS)**

**Description:**

Rates the subjective estimation of the fluency of the language being spoken      Scale of 0 (no proficiency) to 9 (high proficiency)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 < =LPS ≤ 9

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:LanguageProficiencyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.037\_7: Vocal Segment Speaker Characteristics - Speech Style Code (STY)**

**Description:**

Code indicating the dominant style of speech within the segments. See Table 92 Speech Style Codes from ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	See Table 92 Speech Style Codes from ANSI/NIST-ITL update 2015.

Code List: SPEECH STYLE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:SpeechStyleCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_8: Vocal Segment Speaker Characteristics - Intelligibility Scale Code (INT)**

**Description:**

Integer describing the subjective evaluation of the speech. 0 (unintelligible) to 9 (clear and fully intelligible)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ INT ≤ 9, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:IntelligibilityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.037\_9: Vocal Segment Speaker Characteristics - Familiarity Degree Code (FDC)**

**Description:**

Indicates the perceived degree of familiarity between the data subject and the interlocutor. Ranges from 0 indicating no familiarity to 5 indicating high familiarity/intimacy.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ FDC ≤ 5, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:FamiliarityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_10: Vocal Segment Speaker Characteristics - Health Comment (HCM)**

**Description:**

Notes any observable health issues impacting the data subject during the speech segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:HealthCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.037\_11: Vocal Segment Speaker Characteristics - Emotional State Code (EMC)**

**Description:**

An integer giving a subjective estimation of the emotional state of the data subject for the data subject across the segments identified in this subfield. Admissible emotional state codes are given in Table 93 Emotional State Codes in ANSI/NIST-ITL update 2015. Only one value for this item is allowed across all of the segments identified in this subfield. If emotional state code "9" or "10" is chosen to indicate "variable" or "other", additional explanation may be included in the information item (comments/COM) below.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	See Table 93 Emotional State Codes from ANSI/NIST-ITL update 2015.

Code List: EMOTIONAL STATE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:EmotionalStateCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_12: Vocal Segment Speaker Characteristics - Vocal Effort Scale Number (VES)**

**Description:**

Reports the subjective, perceived vocal effort of the subject across the identified segments      Integer between 0 (very low vocal effort) and 5 (screaming/crying)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ VES ≤ 5, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:VocalEffortValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.037\_13: Vocal Segment Speaker Characteristics - Vocal Style Code (VSC)**

**Description:**

Assesses the subjective predominant vocal style of the data subject across the identified segments. The vocal style code shall be chosen from Table 94 Vocal Style Codes from ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	See Table 94 Vocal Style Codes from ANSI/NIST-ITL update 2015.

Code List: VOCAL STYLE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:VocalStyleCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_14: Vocal Segment Speaker Characteristics - Recording Awareness Indicator (RAI)**

**Description:**

Indicates whether the data subject is aware that a recording is being made. 0 indicates unknown, 1 indicates aware and 2 indicates unaware.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	RAI = 0, 1 or 2

Code List: RECORDING AWARENESS INDICATOR

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:RecordingAwarenessCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.037\_15: Vocal Segment Speaker Characteristics - Script Text (SCR)**

**Description:**

Used to give the script used for read, prompted or repeated speech.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:ScriptText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.037\_16: Vocal Segment Speaker Characteristics - Comments (COM)**

**Description:**

Used to give additional information about the characteristic assessment process, including a description of any characteristic assessment algorithms used, Notes on any known external stresses applicable to the data subject, and a description of how the values in the items of this subfield were assigned.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentSpeakerCharacteristicsInformation

NIEM Element: biom:SpeechCharacteristicsCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.038: Vocal Segment Channel (SCH)**

**Description:**

Describes the transducer and transmission channel within the identified segments. This field shall only be present if Field 11.025: Vocal content / VOC appears in this record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:SegmentChannelInformation

XML Min/Max: 0 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.038\_0: Vocal Segment Channel - Subfield: Repeating Sets Of Information Items (SCH\_0)**

**Description:**

Describes the transducer and transmission channel within the identified segments. Only be present if Field 11.025: Vocal content / VOC appears in this record. A value of 0 in this subfield indicates the segment geographical information in this subfield is the default value for all segments not specifically identified in other occurrences of this subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	600000
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.038\_1: Vocal Segment Channel - Segment Identifier List (SIL)**

**Description:**

Segment identifiers to which the values in this subfield pertain. A value of 0 in this subfield indicates the segment geographical information in this subfield shall be considered the default value for all segments not specifically identified in other occurrences of this subfield. If multiple segments are identified, they are designated as integers in a list. It is mandatory in each subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	600000
Character Types	Special Characters	Format	Constraints
NS	For Traditional encoding, the separator character “ ” is used between elements. This is not applicable to XML encoding.	n/a	List of up to 600000 values; non-negative integers

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation/biom:SegmentIDList

NIEM Element: biom:SegmentID

XML Min/Max: 1 / 600000

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.038\_2: Vocal Segment Channel - Audio Capture Device Code (ACD)**

**Description:**

A code indicating the audio capture device type. It is optional. It is an integer with values given in Table 95 Audio Capture Device Type Codes in ANSI/NIST-ITL update 2015. A value of “2” indicates that more than one type of microphone is being used simultaneously to collect the audio signal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	See Table 95 Audio Capture Device Codes from ANSI/NIST-ITL update 2015.

Code List: AUDIO CAPTURE DEVICE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation

NIEM Element: biom:AudioCaptureDeviceCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.038\_3: Vocal Segment Channel - Microphone Type Code (MTC)**

**Description:**

The third information item is the microphone type code / MTC. It is optional. It is an integer that specifies the transducer type from Table 96 Microphone Type Codes in ANSI/NIST-ITL update 2015. Transducer arrays using mixed transducer types shall be designated "other".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	MTC = 0 , 1, 2, 3 or 4

Code List: TRANSDUCER PRINCIPLE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation

NIEM Element: biom:TransducerPrincipleCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.038\_4: Vocal Segment Channel - Capture Environment Description Text (ENV)**

**Description:**

Describes the acoustic environment of the recording.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation

NIEM Element: biom:AudioCaptureEnvironmentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.038\_5: Vocal Segment Channel - Transducer Distance (DST)**

**Description:**

Specifies the approximate distance in centimeters, rounded to the nearest integer number of centimeters, between the speaker in the identified segments and the transducer. A value of 0 will be used if the distance is less than one-centimeter.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ DST ≤ 99999, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation

NIEM Element: biom:TransducerDistanceValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.038\_6: Vocal Segment Channel - Acquisition Source Code (AQC)**

**Description:**

Specifies the source from which the voice in the identified segments was received.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	See Table 121 Acquisition Source from ANSI/NIST-ITL update 2015.

Code List: ACQUISITION SOURCE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation

NIEM Element: biom:AcquisitionSourceCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.038\_7: Vocal Segment Channel - Voice Modification Description Text (VMT)**

**Description:**

Unrestricted string for a description of any digital masking between transducer and recording, disguisers or other attempts to change the voice quality. Any processing techniques used on the recording should be indicated, such as Automated Gain Control (AGC), noise reduction, etc.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation

NIEM Element: biom:TransductionAlterationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.038\_8: Vocal Segment Channel - Comments (COM)**

**Description:**

Unrestricted string for additional information to identify or describe the transduction and transmission channels of the identified segments.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:SegmentChannelInformation

NIEM Element: biom:ChannelCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.051: Comments (COM)**

**Description:**

Unrestricted text string that may contain comments of any type on the Type 11 record as a whole. This field should record any intellectual property rights associated with any of the segments in the voice recording, any court orders related to the voice recording and any administrative data not included in other fields.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail

NIEM Element: biom:AudioCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.902: Annotation Information (ANN)**

**Description:**

Listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type. Repeating sets of information items M†

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-11: Forensic and Investigatory Voice Data

**11.902\_0: Annotated Information - Subfields: Repeating Sets Of Information Items (ANN\_0)**

**Description:**

Listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type. Repeating sets of information items M†

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.902\_1: Annotation Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the annotation occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:ZuluDate/Time

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.902\_2: Annotation Information - Processing Algorithm Name / Version (NAV)**

**Description:**

The second information item of the Type-14 Annotated Information field shall contain an unformatted text string of up to 64 characters identifying the name and version of the processing algorithm or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.902\_3: Annotation Information - Algorithm Owner (OWN)**

**Description:**

The third information item Type-14 Annotated Information field shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.902\_4: Annotation Information - Process Description (PRO)**

**Description:**

The fourth and final information item of the Type-14 Annotated Information field shall contain an unformatted text string of up to 255 characters describing a process or procedure applied to the sample in this Type-XX record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.993: Source Agency Name (SAN)**

**Description:**

The name of the agency referred to in Field 11.004: Source agency / SRC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageVoiceDataRecord/biom:ForensicInvestigatoryVoiceDetail/biom:BiometricCapture/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.994: External Reference File (EFR)**

**Description:**

This conditional field shall be used to enter the URL/URI or other unique reference to a storage location for all digital representations, if the data is not contained in Field 11.999: Voice record data / DATA. It may be a physical location, as well, such as for analog recordings. If this field is used, Field 11.999 shall not be set. However, one of the two fields shall be present in all instances of this record type unless Field 11.003: Audio object descriptor code /AOD is set to a value of 5. It is highly recommended that the user state the format of the external file in Field 11.051: Comment / COM.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord

NIEM Element: biom:SourceExternalFileReferenceText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.995: Associated Context (ASC)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data but that may be relevant to the collection of that data, such as the image of a document authorizing redaction

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.995\_0: Associated Context - Subfields: Repeating Sets Of Information Items (ASC\_0)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data but that may be relevant to the collection of that data, such as the image of a document authorizing redaction

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item for the Associated Context field for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (CAN). The value of the CAN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	1 ≤ ACN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The first information item is the associated segment position (ASP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ASP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.996: Hash (HAS)**

**Description:**

Optional field xx.996, is designed for use in Record types 10 and above with a Field xx.999 storing the biometric data. It is comprised of 64 characters representing hexadecimal values. Thus, each character may be a digit from “0” to “9” or a letter “A” through “F”. See the latest version of the Federal Information Processing Standard 180, Secure Hash Standard for information on computing SHA-256 hashes. At the time of this standard’s publication, FIPS 180-37 had been published. It is also possible to use Field xx.996 to contain the hash for data stored externally, which is referenced in Field 20.994: External file reference (EFR) and/or Field 21.994: External file reference (EFR). The ability to store files externally is new to this version of the standard, and is only implemented for the two new record types referred to here. Use of the hash enables the receiver of the data to perform quick searches of large databases to determine if the data already exist in the database. It is not intended as an information assurance check. That is handled by Record Type-98: Information assurance record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord

NIEM Element: biom:DigitalAudioRecordHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.997: Source Representation (SOR)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.997\_0: Source Representation - Subfields: Repeating Sets Of Information Items (SOR\_0)**

**Description:**

This optional field 13.997 is allowed in biometric data sample Record Types 10 and above that could have the biometric sample derived from a source representation in Record Type-20. The biometric data is stored in Field 13.999.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-11: Forensic and Investigatory Voice Data

**11.997\_1: Source Representation - Source Representation Number (SRN)**

**Description:**

This is the first information item and is mandatory for each Field 11.997. It contains an index to a particular instance of a Type-20 record in the transaction. This same index value appears in the appropriate instance of Record Type-20 as Field 20.021: Source representation number / SRN. The value of the SRN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SRN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord/biom:SourceInformation

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**11.999: Data - Voice Data (DATA)**

**Description:**

If this field is used, Field 11.994: External file reference / EFR shall not be set. One of the two fields shall be present in this record unless Field 11.003: Audio object descriptor code /AOD has a value of 5.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
Base64	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageVoiceDataRecord

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-13: Variable-Resolution Latent Friction Ridge Image

**13.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IDC ≤ 99; integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.003: Impression Type (IMP)**

**Description:**

This mandatory field shall indicate the manner by which the friction ridge print was obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	4 ≤ IMP ≤ 7 or 12 ≤ IMP ≤ 15 or IMP = 28 or 32 ≤ IMP ≤ 39; integer; see Table 8 of ANSI/NIST-ITL update 2015.

Code List: FRICTION RIDGE IMPRESSION CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: itl:FrictionRidgeImpressionCaptureCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.004: Source Agency (SRC)**

**Description:**

This is the identifier of the agency that actually created the record and supplied the information contained in it.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.005: Latent Capture Date (LCD)**

**Description:**

This mandatory field shall contain the date that the latent biometric data contained in the record was captured.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent upon encoding	Dependent upon encoding	1	1
Character Types	Special Characters	Format	Constraints
N	Dependent upon encoding	T = YYYYMMDD; X = <CaptureDate>	Dependent upon encoding.

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocatio

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes

DoD EBTS 2.0: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.1: Yes

**13.006: Horizontal Line Length (HLL)**

**Description:**

HLL defines the number of pixels contained on a single horizontal line of the image. The maximum horizontal size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. The total image size (HLL times VLL) must be able to be accommodated in Field xx.001 for Traditional encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ HLL ≤ 99999; positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:HorizontalLineLengthPixelQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes

DoD EBTS 2.0: Yes

DoD EBTS 3.0: Yes

DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.007: Vertical Line Length (VLL)**

**Description:**

VLL defines the number of pixels contained in a single vertical line in the image. The maximum vertical size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. The total image size (HLL times VLL) must be able to be accommodated in Field xx.001 for Traditional encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ VLL ≤ 99999; positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:VerticalLineLengthPixelQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.008: Scale Units (SLC)**

**Description:**

The image sampling frequency (pixel density). A value of “1” shall indicate pixels per inch. A value of “2” shall indicate pixels per centimeter. A value of “0” in this field indicates that no scale is provided, and the quotient of THPS/TVPS shall provide the pixel aspect ratio.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SLC = 0, 1 or 2

Code List: SCALE UNIT CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:ImageScaleUnitsCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.009: Transmitted Horizontal Pixel Scale (THPS)**

**Description:**

This is the integer pixel density used in the horizontal direction of the image if SLC has a value of “1” or “2”. If SLC has a value of “0”, this information item shall contain the horizontal component of the pixel aspect ratio, up to 5 integer digits. For example, if the SLC value = 1, then the value of THPS could be ‘1000’ for a 1000 ppi sensor. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used. For example with the values 1.3, 1.5 and 1.8 the resulting THPS values would be 1, 2, and 2. Any value greater than x.0 and less than x.5 would be rounded down to x, regardless of the number of significant digits to the right of the decimal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:ImageHorizontalPixelDensityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.01: Transmitted Vertical Pixel Scale (TVPS)**

**Description:**

This is the integer pixel density used in the vertical direction of the image if SLC has a value of “1” or “2”. If SLC has a value of “0”, this information item shall contain the vertical component of the pixel aspect ratio, up to 5 integer digits. If SLC is 1 or 2, then TVPS shall equal THPS. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used. For example with the values 1.3, 1.5 and 1.8 the resulting THPS values would be 1, 2, and 2. Any value greater than x.0 and less than x.5 would be rounded down to x, regardless of the number of significant digits to the right of the decimal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:ImageVerticalPixelDensityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.011: Compression Algorithm (CGA)**

**Description:**

This is a mandatory field. It shall specify the algorithm used to compress the transmitted color or grayscale images. See Table 19 Compression codes of ANSI/NIST-ITL update 2015 for labels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	1	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	CGA = NONE, JPEGL, JP2L, or PNG

Code List: COMPRESSION CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:ImageCompressionAlgorithmCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.012: Bits Per Pixel (BPX)**

**Description:**

This ASCII field shall contain the number of bits used to represent a pixel. This field shall contain an entry of “8” for normal grayscale values of “0” to “255” or each RGB color component. Any entry in this field greater than “8” shall represent a grayscale or color pixel component with increased precision.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	8 ≤ BPX ≤ 99

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:ImageBitsPerPixelQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.013: Friction Ridge Generalized Position (FGP)**

**Description:**

This field is mandatory. Each subfield shall contain one possible finger, palm or plantar position that may match the latent image, up to a maximum of 6 possibilities. The code “0” shall be used to reference every finger position from 1 to 10, 16 and 17. The code “20” for “Unknown palm” shall be used to reference every listed palm print position. The code “60” for “Unknown sole” shall be used for every listed plantar position. Code “18” shall be used if it is unknown whether the print is from a hand or foot. Code “19” shall be used for a latent image that includes substantive portion of the medial or proximal segments of a finger, or the extreme tip of a fingerprint. If code 19 is used, fields 13.014 and 13.015 shall be used. See Look Up Codes for valid entries. See Table Table 9 of the ANSI/NIST-ITL update 2015 for labels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	n/a

Code List: FRICTION RIDGE GENERALIZED POSITION CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:LatentFrictionRidgePositionCode

XML Min/Max: 1 / 6

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.013\_0: Friction Ridge Generalized Position - Subfield: Repeating Sets Of Information Items (FGP\_0)**

**Description:**

This field is mandatory. Each subfield shall contain one possible finger, palm or plantar position that may match the latent image, up to a maximum of 6 possibilities. The code “0” shall be used to reference every finger position from 1 to 10, 16 and 17. The code “20” for “Unknown palm” shall be used to reference every listed palm print position. The code “60” for “Unknown sole” shall be used for every listed plantar position. Code “18” shall be used if it is unknown whether the print is from a hand or foot. Code “19” shall be used for a latent image that includes substantive portion of the medial or proximal segments of a finger, or the extreme tip of a fingerprint. If code 19 is used, fields 13.014 and 13.015 shall be used. See Look Up Codes for valid entries.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	6
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ FGP ≤ 10, or 16 ≤ FGP ≤ 38, or 60 ≤ FGP ≤ 79 or 81 ≤ FGP ≤ 86; integer

Code List: FRICTION RIDGE GENERALIZED POSITION CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: New Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.014: Search Position Descriptors (SPD)**

**Description:**

Shall be present if and only if the finger position code "19" appears in Field 13.013. It is used to narrow the search of the latent image in this record against a database. The lack of an XML element is a structural anomaly. There is no element to represent the Field 13.014, and instead each information item repeats. This anomaly is retained for backward compatibility purposes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: dod-ebts:FingerImpressionImage

NIEM Element: biom:FingerprintImageMajorCasePrint

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.014\_0: Search Position Descriptors - Subfield: Repeating Sets Of Information Items (SPD\_0)**

**Description:**

Shall be present if and only if the finger position code "19" appears in Field 13.013. It is used to narrow the search of the latent image in this record against a database. The lack of an XML element is a structural anomaly. There is no element to represent the Field 13.014, and instead each information item repeats. This anomaly is retained for backward compatibility purposes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: New Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-13: Variable-Resolution Latent Friction Ridge Image

**13.014\_1: Search Position Descriptors - Probable Decimal Finger Position Code (PDF)**

**Description:**

The first information item is the probable decimal finger position code / PDF taken from Table 9 of the ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ PDF ≤ 10, or PDF = 16 or 17

Code List: FRICTION RIDGE GENERALIZED POSITION CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.014\_2: Search Position Descriptors - Finger Image Code (FIC)**

**Description:**

The second information item is finger image code(FIC). Latent images of full length fingers use codes FV1 through FV4. Other allowable codes are EJI, TIP, PRX, DST and MED. See Table 10 of the ANSI/NIST-ITL update 2015 for valid entries.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	FIC = EJI, TIP, FV1, FV2, FV3, FV4, PRX, DST or MED

Code List: PRINT POSITION DESCRIPTORS

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint

NIEM Element: biom:MajorCasePrintCode

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.015: Print Position Coordinates (PPC)**

**Description:**

This field may be present if and only if the finger position code “19” appears in Field 13.013: Friction ridge generalized position / FGP. It is an optional field. Individual full finger or segment definitions may be entered as separate subfields. For the case of a fingertip, the first information item shall be “TIP”, and the second information item shall be “NA”. When used, this field shall consist of six (6) mandatory information items describing the type or portion of the image contained in this record and its location within an EJI. This information will describe either the location of the entire joint image, one full finger view, or segment. Individual full finger or segment definitions may be repeated as repeating sets of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint

NIEM Element: biom:MajorCasePrintSegmentOffset

XML Min/Max: 0 / 12

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.015\_0: - Subfield: Repeating Sets Of Information Items (PPC\_0)**

**Description:**

This field may be present if and only if the finger position code “19” appears in Field 13.013: Friction ridge generalized position (FGP). It is an optional field. Individual full finger or segment definitions may be entered as separate subfields. For the case of a fingertip, the first information item shall be “TIP”, and the second information item shall be “NA”. When used, this field shall consist of six (6) mandatory information items describing the type or portion of the image contained in this record and its location within an EJI. This information will describe either the location of the entire joint image, one full finger view, or segment. Individual full finger or segment definitions may be repeated as repeating sets of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	12
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: New Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.015\_1: Print Position Coordinates - Full Finger View (FVC)**

**Description:**

The first information item is the full finger view / FVC with values of "FV1" through "FV4". Values of "FV1" to "FV4" specify the perspective for each full finger view. For a fingertip, the first information item shall be "TIP". FVC will contain the code "NA" if only a proximal, distal, or medial segment is available.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	1	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	FVC = NA, TIP, FV1, FV2, FV3 or FV4; see Look Up Codes

Code List: PRINT POSITION DESCRIPTORS

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset

NIEM Element: biom:SegmentFingerViewCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.015\_2: Print Position Coordinates - Location of Segment (LOS)**

**Description:**

The second information item is used to identify the location of a segment / LOS within a full finger view. LOS will contain the not applicable code "NA" if the image portion refers to a full finger view, tip or to the entire joint image locations. Otherwise, it shall contain "PRX", "DST", "MED" for a proximal, distal, or medial segment, respectively.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	LOS = NA, PRX, DST or MED; see Look Up Codes

Code List: PRINT POSITION DESCRIPTORS

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset

NIEM Element: biom:SegmentLocationCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.015\_3: Print Position Coordinates - Left Horizontal Coordinate (LHC)**

**Description:**

The third information item is the left horizontal coordinate / LHC. It is the horizontal offset in pixels to the left edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ LHC < HLL; integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset/biom:FingerprintCoordinate

NIEM Element: biom:SegmentLeftHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.015\_4: Print Position Coordinates - Right Horizontal Coordinate (RHC)**

**Description:**

The fourth information item is the right horizontal coordinate / RHC. It is the horizontal offset in pixels to the right edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	LHC < RHC < HLL; integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset/biom:FingerprintCoordinate

NIEM Element: biom:SegmentRightHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.015\_5: Print Position Coordinates - Top Vertical Coordinate (TVC)**

**Description:**

This information item is vertical offset (pixel counts down) to the top of the bounding box.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ TVC < VLL; integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset/biom:FingerprintCoordinate

NIEM Element: biom:SegmentTopVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.015\_6: Print Position Coordinates - Bottom Vertical Coordinate (BVC)**

**Description:**

The sixth information item is the bottom vertical coordinate / BVC. It is the vertical offset from the upper left corner of the image down to the bottom of the bounding box. It is counted in pixels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	TVC < BVC < VLL; integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset/biom:FingerprintCoordinate

NIEM Element: biom:SegmentBottomVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.016: Scanned Horizontal Pixel Scale (SHPS)**

**Description:**

This ASCII field shall specify the horizontal pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the horizontal component of the pixel aspect ratio.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.017: Scanned Vertical Pixel Scale (SVPS)**

**Description:**

This ASCII field shall specify the vertical pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the vertical component of the pixel aspect ratio.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.018: Ruler or Scale Presence (RSP)**

**Description:**

This optional field allows the user to state whether a ruler or other known scale is present in the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:RulerScalePresenceInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.018\_1: Ruler or Scale Presence - Ruler or Scale Units (RSU)**

**Description:**

The first information item, ruler or scale units / RSU, indicates the units of measurement visible on the ruler or measurement scale. IN = inches, MM = millimeters or BOTH = both inches and millimeters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	4	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	RSP = IN, MM, BOTH; See Look Up Codes

Code List: RULER OR SCALE UNIT CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:RulerScalePresenceInformation

NIEM Element: biom:RulerScaleUnitCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.018\_2: Ruler or Scale Presence - Ruler or Scale Make (RSM)**

**Description:**

The second information item, ruler or scale make (RSM), lists the maker of the ruler or scale (if known).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:RulerScalePresenceInformation

NIEM Element: biom:RulerScaleMakeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.018\_3: Ruler or Scale Presence - Ruler or Scale Model (RSO)**

**Description:**

The third information item, ruler or scale model (RSO), lists the model of the ruler or scale (if known).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:RulerScalePresenceInformation

NIEM Element: biom:RulerScaleModelText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-13: Variable-Resolution Latent Friction Ridge Image

**13.018\_4: Ruler or Scale Presence - Standard Fingerprint Form Number (RSF)**

**Description:**

The fourth information item, standard fingerprint form number (RSF) permits entry of a standard fingerprint form number such as FD-249, FD-258 or C-216C. RSF is present if and only if none of the other three information items (RSU, RSM, or RSO) are specified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	99	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:StandardFingerprintFormNumberText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.019: Resolution Method (REM)**

**Description:**

This optional field states the method used for determining the pixel density of the image. The second through the seventh information items are mandatory if MDR = RULER and are optional if MDR = FORM. They shall not be used for other values of MDR. When the known scale coordinates are used, the resolution can be calculated as the distance in pixels between points A and B divided by KSL. The pixel counts used in SXA, SYA, SXB, SYB are zero-based. The top left pixel has coordinates (0,0). If the transmitted pixel density of an image in Field 13.009: Transmitted horizontal pixel scale / THPS and Field 13.010: Transmitted vertical pixel scale / TVPS differs from the scanned (original) pixel density stated in Field 13.016: Scanned horizontal pixel scale / SHPS and Field 13.017: Scanned vertical pixel scale / SVPS, then the values in this field are with respect to the scanned pixel density and shall not be recalculated to correspond to the transmitted pixel density.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:ResolutionMethodInformation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.019\_1: Resolution Method - Means of Determining Resolution (MDR)**

**Description:**

The first information item, means of determining resolution / MDR, specifies whether the resolution is calculated (from a ruler or known scale), estimated (by a human or computer), or is from a known source (such as a flatbed scanner or standard form). Enter the CODE from Table 103 Means of determining resolution in ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	1	1
Character Types	Special Characters	Format	Constraints
AS	None	n/a	MDR = FLATBED, FIXED, RULER, FORM, EST-HUMAN, EST-AUTO

Code List: MEANS OF DETERMINING RESOLUTION CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionMeansCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.019\_2: Resolution Method - Known Scale Length (KSL)**

**Description:**

The second information item, known scale units (KSL), specifies the length of the known scale from point A to point B. It may contain a period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
NS	Period	n/a	0.01 ≤ KSL ≤ 999.00; maximum of two digits to right of decimal

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionScaleLengthValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.019\_3: Resolution Method - Known Scale Units (KSU)**

**Description:**

The third information item, known scale units (KSU) indicates whether the known scales units are in inches or millimeters. IN = inches, MM = millimeters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	KSU = IN or MM

Code List: RULER OR SCALE UNIT CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionScaleUnitCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.019\_4: Resolution Method - Known Scale X Coordinate for Point A (SXA)**

**Description:**

The fourth information item, known scale x coordinate for point A (SXA) is expressed in number of pixels from the left of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionScaleXCoordinateAValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.019\_5: Resolution Method - Known Scale Y Coordinate for Point A (SYA)**

**Description:**

The fifth information item, known scale y coordinate for point A (SYA) is expressed in number of pixels from the top of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionScaleYCoordinateAValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.019\_6: Resolution Method - Known Scale X Coordinate for Point B (SXB)**

**Description:**

The sixth information item, known scale x coordinate for point B (SXB) is expressed in number of pixels from the left of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionScaleXCoordinateBValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.019\_7: Resolution Method - Known Scale Y Coordinate for Point B (SYB)**

**Description:**

The seventh information item, known scale y coordinate for point B (SYB) is expressed in number of pixels from the top of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionScaleYCoordinateBValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.019\_8: Resolution Method - Comment (COM)**

**Description:**

The eighth information item, comment (COM), is a UNICODE text comment or description provided by the examiner about the resolution method.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	99	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	Integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ResolutionMethodInformation

NIEM Element: biom:ResolutionCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.020: Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:ImageCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.024: Latent Quality Metric (LQM)**

**Description:**

This optional field is used to specify one or more different metrics of latent image quality score data for the image stored in this record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:FrictionRidgeImageQuality

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.024\_0: Latent Quality Metric (LQM\_0)**

**Description:**

This optional field is used to specify one or more different metrics of latent image quality score data for the image stored in this record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: New Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.024\_1: Latent Quality Metric - Friction Ridge Metric Position (FRMP)**

**Description:**

The first information item is the entry in Field 13.013: Friction ridge generalized position (FGP). This information item is called the friction ridge metric position (FRMP) to differentiate it from FGP.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	See Table 9 Friction ridge position code & recommended image dimensions from ANSI/NIST-ITL update 2015.

Code List: FRICTION RIDGE GENERALIZED POSITION CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FrictionRidgeImageQuality

NIEM Element: biom:LatentFrictionRidgePositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.024\_2: Latent Quality Metric - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ QVU ≤ 100 or QVU = 254 or 255; integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FrictionRidgeImageQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.024\_3: Latent Quality Metric - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FrictionRidgeImageQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-13: Variable-Resolution Latent Friction Ridge Image

**13.024\_4: Latent Quality Metric - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, which may be registered with the IBIA, but it is not required to be registered. It indicates which of the vendor's algorithms was used in the calculation of the quality score. This field contains the ASCII representation of the integer product code and should be within the range 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ QAP ≤ 65535; positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:FrictionRidgeImageQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.046: Image Subject Condition (SUB)**

**Description:**

This field is optional. This field is particularly useful if the image is obtained from a deceased person. However, its use is not limited to such circumstances. Some implementation domains support the submission of fingerprints taken from deceased individuals as latent prints, due to the quality of the friction ridges and the resulting images. In such cases, SSC is specified as D. For latent images taken from a surface, the value is typically X.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:SubjectExistentialDetails

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.046\_1: Image Subject Condition - Subject Status Code (SSC)**

**Description:**

The first information item is mandatory if this field is present. It is subject status code (SSC). Possible entries are: X = Status of individual unknown; A = Data obtained from a living person – such as a victim or person unable to identify themselves; or D = Data obtained from a non-living person (deceased)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	SSC = X, A, or D

Code List: SUBJECT STATUS CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectExistentialStatusCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.046\_2: Image Subject Condition - Subject Body Status Code (SBSC)**

**Description:**

The second information item shall be entered if and only if SSC is D. It is subject body status code (SBSC). Its purpose is to indicate whether the information relates to an entire corpse or a separate body part. The numeric value is selected from the descriptors below: 1 = Whole or 2 = Fragment

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBSC = 1 or 2

Code List: SUBJECT BODY STATUS CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyStatusCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.046\_3: Image Subject Condition - Subject Body Class Code (SBCC)**

**Description:**

The third information item shall be entered if and only if SSC is D. It is subject body class code (SBCC). The numeric value is selected from the descriptors below: 1 = Natural Tissue or 2 = Decomposed

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBCC = 1 or 2

Code List: SUBJECT BODY CLASS CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.047: Capture Organization Name (CON)**

**Description:**

This field is optional. Note that this can be different from the agency entered in Field 13.004: Source agency (SRC) and Field 13.993: Source agency name (SAN). SRC and SAN describe the agency that created the record. Since the record may have been forwarded by another agency to the final destination, Field 1.008: Originating agency identifier (ORI) is used to indicate the transmitting organization. In many implementation domains, there are a limited number of transmission organizations that can send data. Therefore, the agency listed in SRC may send the transaction to another location that has access rights to the final destination. This intermediary may add information to the transaction, as well. The final transmitting organization code is listed in Field 1.008: Originating agency identifier (ORI). Its name may be entered in Originating agency name (OAN) in Field 1.017: Agency names (ANM).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationUnitName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.200-13.900: User-Defined Fields (UDF)**

**Description:**

These fields are user-definable fields. Their size and content shall be defined by the user and be in accordance with the receiving agency.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
user-defined	user-defined	1	1
Character Types	Special Characters	Format	Constraints
user-defined	user-defined		user-defined

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: itl:UserDefinedFields

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.901: Friction Ridge Capture Technology (FCT)**

**Description:**

This is an optional field. It is a two-digit code from signifying the type of technology that was used to capture the print for transmission. See Section 7.7.4.5 of ANSI/NIST-ITL update 2015 for more detail and the meanings of the codes. For latent prints conveyed in Type-13 records, the only valid codes are: 0, 18, 19, 20, 21 and 22.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	FCT = 0, 18, 19, 20, 21 or 22

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail

NIEM Element: biom:FrictionRidgeCaptureTechnologyCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.902: Annotated Information (ANN)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.902\_0: Annotated Information - Subfield: Repeating Sets Of Information Items (ANN\_0)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: New Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the annotation occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

The second information item of the Type-14 Annotated Information field shall contain an unformatted text string of up to 64 characters identifying the name and version of the processing algorithm or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

The third information item Type-14 Annotated Information field shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

The fourth and final information item of the Type-14 Annotated Information field shall contain an unformatted text string of up to 255 characters describing a process or procedure applied to the sample in this Type-XX record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.903: Device Unique Identifier (DUI)**

**Description:**

The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of: Host PC MAC address, identified by the first character "M", or Host PC processor ID, identified by the first character "P". Note: ANSI/NIST ITL 1-2011 has deleted the options for "Serial number or No serial number" from Field 17.017, since it is available in the Make / Model / Serial Number field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
13	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	first character = M or P

Code List: DEVICE UNIQUE IDENTIFIER CODES

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.904: Make/Model/Serial Number (MMS)**

**Description:**

The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-13: Variable-Resolution Latent Friction Ridge Image

**13.904\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.904\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.904\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field 13.004: Source agency / SRC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.994: External File Reference (EFR)**

**Description:**

This conditional field shall be used to enter the URL/URI or other unique reference to a storage location for all digital representations, if the data is not contained in Field 13.999: Latent friction ridge image / DATA. If this field is used, Field 13.999 shall not be set. However, one of the two fields shall be present in all instances of this record type. It is highly recommended that the user state the format of the external file in Field 13.020: Comment / COM.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	1	1
Character Types	Special Characters	Format	Constraints
U		n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: biom:SourceExternalFileReferenceText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**13.995: Associated Context (ASC)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.995\_0: Associated Context - Subfield: Repeating Sets Of Information Items (ASC\_0)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: New Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item for the Associated Context field for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (CAN). The value of the CAN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	1 ≤ ACN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The first information item is the associated segment position (ASP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ASP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.996: Hash (HAS)**

**Description:**

Optional field xx.996, is designed for use in Record types 10 and above with a Field xx.999 storing the biometric data. It is comprised of 64 characters representing hexadecimal values. Thus, each character may be a digit from “0” to “9” or a letter “A” through “F”. See the latest version of the Federal Information Processing Standard 180, Secure Hash Standard for information on computing SHA-256 hashes. At the time of this standard’s publication, FIPS 180-37 had been published. It is also possible to use Field xx.996 to contain the hash for data stored externally, which is referenced in Field 20.994: External file reference (EFR) and/or Field 21.994: External file reference (EFR). The ability to store files externally is new to this version of the standard, and is only implemented for the two new record types referred to here. Use of the hash enables the receiver of the data to perform quick searches of large databases to determine if the data already exist in the database. It is not intended as an information assurance check. That is handled by Record Type-98: Information assurance record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.997: Source Representation (SOR)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 13.999: Latent friction ridge image (DATA) was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.997\_0: Source Representation - Subfield: Repeating Sets Of Information Items (SOR\_0)**

**Description:**

This optional field 13.997 is allowed in biometric data sample Record Types 10 and above that could have the biometric sample derived from a source representation in Record Type-20. The biometric data is stored in Field 13.999.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: New Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.997\_1: Source Representation - Source Representation Number (SRN)**

**Description:**

This is the first information item and is mandatory for each Field 13.997. It contains an index to a particular instance of a Type-20 record in the transaction. This same index value appears in the appropriate instance of Record Type-20 as Field 20.021: Source representation number / SRN. The value of the SRN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SRN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:SourceInformation

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.997\_2: Source Representation - Reference Segment Position (RSP)**

**Description:**

The second information item is the reference segment position / RSP. This optional field provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RSP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:SourceInformation

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the fingerprint sample was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a, BiometricCaptureType	n/a	n/a

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail

NIEM Element: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
dependent on encoding	dependent on encoding	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Dependent upon encoding

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocatio

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign	n/a	-90 ≤ LTD ≤ 90

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign, Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 ≤ ELE ≤ 8848.000; real number

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate

NIEM Element: nc:LocationElevation/nc:MeasureDecimalValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate

NIEM Element: biom:GeodeticDatumCoordinateSystemCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocatio

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocatio

NIEM Element: mo:MGRSCoordinateStringText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocatio

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocatio

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**13.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html> .

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent:

itl:PackageLatentImageRecord/biom:FrictionRidgeDetail/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocatio

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-13: Variable-Resolution Latent Friction Ridge Image

**13.999: Latent Friction Ridge Image (DATA)**

**Description:**

This conditional field, if present, contains the latent image. If this field is used, Field 13.994: External file reference / EFR shall not be set. One of these two fields shall be present in this record. See Section 7.2 of ANSI/NIST ITL update 2015 for details.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
B	None	n/a	None

Source: ANSI/NIST ITL 1-2013 (Type-13)

Status: Active

XML Parent: itl:PackageLatentImageRecord

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-14: Variable-Resolution Fingerprint Image

**14.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IDC ≤ 99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.003: Impression Type (IMP)**

**Description:**

This dependent field shall indicate the manner by which the fingerprint was obtained. This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IMP ≤ 3, IMP = 8, 20 ≤ IMP ≤ 29, 40 ≤ IMP ≤ 41; integer

Code List: FRICTION RIDGE IMPRESSION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: itl:FrictionRidgeImpressionCaptureCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.004: Source Agency (SRC)**

**Description:**

This mandatory field is the identifier of the agency that actually created the record and supplied the information contained in it.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.005: Fingerprint Capture Date (FCD)**

**Description:**

This mandatory field shall contain the local date that the fingerprint data contained in the record was captured.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent upon encoding	Dependent upon encoding	1	1
Character Types	Special Characters	Format	Constraints
N	None	T = YYYYMMDD; X = <CaptureDate>	Dependent upon encoding.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.006: Horizontal Line Length (HLL)**

**Description:**

This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. HLL defines the number of pixels contained on a single horizontal line of the image. The maximum horizontal size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. The total image size (HLL times VLL) must be able to be accommodated in Field xx.001 for Traditional encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ HLL ≤ 99999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:HorizontalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.007: Vertical Line Length (VLL)**

**Description:**

This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. VLL defines the number of pixels contained in a single vertical line in the image. The maximum vertical size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. The total image size (HLL times VLL) must be able to be accommodated in Field xx.001 for Traditional encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ VLL ≤ 99999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:VerticalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.008: Scale Units (SLC)**

**Description:**

This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. The image sampling frequency (pixel density). A value of "1" shall indicate pixels per inch. A value of "2" shall indicate pixels per centimeter. A value of "0" in this field indicates that no scale is provided, and the quotient of THPS/TVPS shall provide the pixel aspect ratio.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ SLC ≤ 2, See Look Up Codes

Code List: SCALE UNIT CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:ImageScaleUnitsCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.009: Transmitted Horizontal Pixel Scale (THPS)**

**Description:**

This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. This is the integer pixel density used in the horizontal direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this information item shall contain the horizontal component of the pixel aspect ratio, up to 5 integer digits. For example, if the SLC value = 1, then the value of THPS could be '1000' for a 1000 ppi sensor. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used. For example with the values 1.3, 1.5 and 1.8 the resulting THPS values would be 1, 2, and 2. Any value greater than x.0 and less than x.5 would be rounded down to x, regardless of the number of significant digits to the right of the decimal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:ImageHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.01: Transmitted Vertical Pixel Scale (TVPS)**

**Description:**

This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. This is the integer pixel density used in the vertical direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this information item shall contain the vertical component of the pixel aspect ratio, up to 5 integer digits. If SLC is 1 or 2, then TVPS shall equal THPS. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used. For example with the values 1.3, 1.5 and 1.8 the resulting THPS values would be 1, 2, and 2. Any value greater than x.0 and less than x.5 would be rounded down to x, regardless of the number of significant digits to the right of the decimal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:ImageVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.011: Compression Algorithm (CGA)**

**Description:**

This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. It shall specify the algorithm used to compress the transmitted grayscale images. See Table 19 Compression codes of ANSI/NIST-ITL update 2015 for labels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Code List: COMPRESSION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:ImageCompressionAlgorithmCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.012: Bits Per Pixel (BPX)**

**Description:**

This field is mandatory if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. This ASCII field shall contain the number of bits used to represent a pixel. This field shall contain an entry of "8" for normal grayscale values of "0" to "255" or each RGB color component. Any entry in this field greater than "8" shall represent a grayscale or color pixel component with increased precision.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	8 ≤ BPX ≤ 99

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:ImageBitsPerPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.013: Friction Ridge Generalized Position (FGP)**

**Description:**

This mandatory field is used in Record types dealing with friction ridges. It specifies which friction ridge biometric sample was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	n/a

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:ExemplarFingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.013\_0: Friction Ridge Generalized Position - Subfields: Repeating values (FGP)**

**Description:**

This field is used in Record types dealing with friction ridges. It specifies which friction ridge biometric sample was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FGP ≤ 19, or FGP = 33, or FGP = 36 or 40 ≤ FGP ≤ 54; integer; see Look Up Codes

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.014: Print Position Descriptors (PPD)**

**Description:**

This ASCII field shall be present if and only if the finger position code "19" appears in Field 14.013: Finger ridge generalized position / FGP. This field shall consist of two information items. The first is the probable decimal finger position code (0-10). The second information item is the code to indicate the portion of the EJI or tip image that is stored as a single image in the database. There may be up to 17 such images for a single finger. Images of full-length fingers use codes FV1 through FV4.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.014\_1: Print Position Descriptors - Decimal Finger Position Code (DFP)**

**Description:**

The first information item of 14.014 Print Position Descriptors with value of 1 to 10, inclusive or 16 or 17.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ DFP ≤ 10 or DFP = 16 or 17; see Look Up Codes

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.014\_2: Print Position Descriptors - Finger Image Code (FIC)**

**Description:**

The second information item indicates the portion of the database to search. Full-length finger joint images use codes FV1 through FV4. Multiple portions of the EJI may be listed in a separate subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	1	1
Character Types	Special Characters	Format	Constraints
AN	D	n/a	EJI, TIP, TPP, FV1, FV2, FV3, FV4, PRX, DST or MED from table 10

Code List: PRINT POSITION DESCRIPTORS

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint

NIEM Element: biom:MajorCasePrintCode

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-14: Variable-Resolution Fingerprint Image

**14.015: Print Position Coordinates (PPC)**

**Description:**

This field describes the type or portion of the latent image contained in this record and its location within an entire joint image. If finger position code "19" appears in Finger Position field, this set may optionally contain offsets to the locations for the bounding box of the EJI, each of the full finger views, or segments within the EJI. When used, this field shall consist of six (6) mandatory information items describing the type or portion of the image contained in this record and its location within an EJI. This information will describe either the location of the entire joint image, one full finger view, or segment. Individual full finger or segment definitions may be repeated as repeating sets of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint

NIEM Element: biom:MajorCasePrintSegmentOffset

XML Min/Max: 0 / 12

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.015\_0: Print Position Coordinates - Subfields: Repeating sets of information items (PPC\_0)**

**Description:**

This field describes the type or portion of the latent image contained in this record and its location within an entire joint image. If finger position code "19" appears in Finger Position field, this set may optionally contain offsets to the locations for the bounding box of the EJI, each of the full finger views, or segments within the EJI. When used, this field shall consist of six (6) mandatory information items describing the type or portion of the image contained in this record and its location within an EJI. This information will describe either the location of the entire joint image, one full finger view, or segment. Individual full finger or segment definitions may be repeated as repeating sets of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	12
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.015\_1: Print Position Coordinates - Full Finger View (FVC)**

**Description:**

This information item is the number of the full finger view with values of "FV1" through "FV4". Values of "FV1" to "FV4" specify the bounding coordinates for each full finger view. For the case of a fingertip, this information item shall be "TIP" or "TPP". FVC will contain the code "NA" if only a proximal, distal or medial segment is available.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	1	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	FVC = NA, FV1, FV2, FV3, FV4 TIP or TPP; see Look Up Codes

Code List: PRINT POSITION DESCRIPTORS

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint/biom:Maj orCasePrintSegmentOffset

NIEM Element: biom:SegmentFingerViewCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.015\_2: Print Position Coordinates - Location of Segment (LOS)**

**Description:**

This information item is used to identify the location of a segment within a full finger view. It will contain the not applicable code "NA" if the image portion refers to a full finger view or to the entire joint image locations. It shall contain "PRX", "DST", "MED" for a proximal, distal, or medial segment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	LOS = NA, PRX, DST or MED; see Look Up Codes

Code List: PRINT POSITION DESCRIPTORS

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint/biom:Maj orCasePrintSegmentOffset

NIEM Element: biom:SegmentLocationCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.015\_3: Print Position Coordinates - Left Horizontal Coordinate (LHC)**

**Description:**

The third information item is the left horizontal coordinate / LHC. It is the horizontal offset in pixels to the left edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ LHC < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset

NIEM Element: biom:SegmentLeftHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.015\_4: Print Position Coordinates - Right Horizontal Coordinate (RHC)**

**Description:**

The fourth information item is the right horizontal coordinate / RHC. It is the horizontal offset in pixels to the right edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	LHC < RHC < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset

NIEM Element: biom:SegmentRightHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.015\_5: Print Position Coordinates - Top Vertical Coordinate (TVC)**

**Description:**

The fifth information item is the top vertical coordinate / TVC. The vertical offset (pixel counts down) to the top of the bounding box.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ TVC < VLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset

NIEM Element: biom:SegmentTopVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.015\_6: Print Position Coordinates - Bottom Vertical Coordinate (BVC)**

**Description:**

The sixth information item is the bottom vertical coordinate / BVC. It is the vertical offset from the upper left corner of the image down to the bottom of the bounding box. It is counted in pixels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	TVC < BVC < VLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageMajorCasePrint/biom:MajorCasePrintSegmentOffset

NIEM Element: biom:SegmentBottomVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.016: Scanned Horizontal Pixel Scale (SHPS)**

**Description:**

This field is a dependent field if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. This ASCII field shall specify the horizontal pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the horizontal component of the pixel aspect ratio, up to 5 integer digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.017: Scanned Vertical Pixel Scale (SVPS)**

**Description:**

This field is a dependent field if an image is present in Field 14.999: Fingerprint image / DATA or referenced in Field 14.994: External file reference / EFR. Otherwise it is absent. This ASCII field shall specify the vertical pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the vertical component of the pixel aspect ratio, up to 5 integer digits. Note that density is directly related to resolution. If SLC is 1 or 2 and SHPS is entered, then SVPS shall equal SHPS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.018: Amputated or Bandaged (AMP)**

**Description:**

This optional field shall specify if one or more fingers are amputated or bandaged. This field shall consist of one subfield for each amputated or missing finger. Each subfield shall contain two information items. Multiple amputated or unprintable finger positions may each be entered as a separate repeating subfield. This field is to be used anytime there are fewer than expected printable fingers in a submission (e.g., less than four in a left or right slap or less than two in a two-thumb slap). A scarred finger should be printed and the SR code used. XX shall be used only when a partial print exists due to amputation; therefore it contains some friction ridge detail. UP shall be used with the complete block where an image was to be transmitted, but there is no image due to amputation or total lack of friction ridge detail (such as with a bandage). An image with a scar should not be marked XX or UP. SR is used to denote a complete scar when the scarred pattern could have been any of the three general pattern types (e.g., loop, whorl and arch). If all fingers for a specific slap are missing, the AMP codes for each missing finger shall be specified, and the image shall be sent or not in accordance to the agreement of the interchanging agencies.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageFingerMissing

XML Min/Max: 0 / 5

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.018\_0: Amputated or Bandaged - Subfield: Repeating sets of information items (AMP\_0)**

**Description:**

This optional field shall specify if one or more fingers are amputated or bandaged. This field shall consist of one subfield for each amputated or missing finger. Multiple amputated or unprintable finger positions may each be entered as a separate repeating subfield. This field is to be used anytime there are fewer than expected printable fingers in a submission (e.g., less than four in a left or right slap or less than two in a two-thumb slap). A partially scarred finger should be printed. XX shall be used only when a partial print exists due to amputation; therefore it contains some friction ridge detail. UP shall be used with the complete block where an image was to be transmitted, but there is no image due to amputation or total lack of friction ridge detail (such as with a bandage). An image with a scar should not be marked XX or UP.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	5
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.018\_1: Amputated or Bandaged - Friction Ridge Amputation or Bandaged Position (FRAP)**

**Description:**

The first information item is the friction ridge amputated or bandaged position / FRAP between 1 and 10 or 16 or 17 as chosen from Table 9 of the ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FRAP ≤ 10 or FRAP = 16 or 17; see Look Up Codes

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageFingerMissing

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**14.018\_2: Amputated or Bandaged - Amputated or Bandaged Code (ABC)**

**Description:**

The second item is the amputated or bandaged code / ABC, also known as the AMPCD. This information item provides the code that describes the reason the finger's image is missing. See Table 105 Amputation / bandaged fingerprinting codes in ANSI/NIST-ITL update 2015 for allowable indicators.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	ABC = XX, UP or SR; See Look Up Codes

Code List: AMPUTATED OR BANDAGED CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageFingerMissing

NIEM Element: biom:FingerMissingCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.02: Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:ImageCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.021: Finger Segment Position(s) (SEG)**

**Description:**

This optional field shall contain offsets to the locations of image segments containing the individual fingers within the flat images of simultaneous fingers from each hand or the two simultaneous thumbs. The offsets are relative to the origin positioned in the upper left corner of the image. The horizontal offsets (X) are the pixel counts to the right, and the vertical offsets (Y) are the pixel counts down. A finger segment is defined by the FINGER NUMBER. The five information items within a finger segment definition are separated by the "US" separator. Individual finger segment definitions are separated. This field shall only be present if FGP = 13, 14, 15 or 40-54 from Table 9 as entered in Field 14.013: Friction ridge generalized position / FGP. The subfield occurs at least once, and may be repeated if more than one algorithm is used to segment the image. Each subfield contains five information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageSegmentPositionSquare

XML Min/Max: 0 / 5

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-14: Variable-Resolution Fingerprint Image

**14.021\_0: Finger Segment Position(s) (SEG\_0)**

**Description:**

This ASCII field shall contain offsets to the locations of image segments containing the individual fingers within the flat images of the four simultaneous fingers from each hand or the two simultaneous thumbs. The offsets are relative to the origin positioned in the upper left corner of the image. The horizontal offsets (X) are the pixel counts to the right, and the vertical offsets (Y) are the pixel counts down. A finger segment is defined by the FINGER NUMBER. The five information items within a finger segment definition are separated by the "US" separator. Individual finger segment definitions are separated. If more than one algorithm is used to segment the image, successive sets finger segmentation positions

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	5
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**14.021\_1: Finger Segment Position(s) - Friction Ridge Segment Position (FRSP)**

**Description:**

The first information item is the friction ridge segment position / FRSP with values of 1 to 10 or 16 or 17 selected from Table 9 of the ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FRSP ≤ 10 or FRSP = 16 or 17

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.021\_2: Finger Segment Position(s) - Left Horizontal Coordinate (LHC)**

**Description:**

The second information item is the left horizontal coordinate value / LHC. It is the horizontal offset in pixels to the left edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ LHC < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentLeftHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.021\_3: Finger Segment Position(s) - Right Horizontal Coordinate (RHC)**

**Description:**

The third information item is the right horizontal coordinate value / RHC. It is the horizontal offset in pixels to the right edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	LHC < RHC < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentRightHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.021\_4: Finger Segment Position(s) - Top Vertical Coordinate (TVC)**

**Description:**

The fourth information item is the top vertical coordinate value / TVC. The vertical offset (pixel counts down) to the top of the bounding box.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ TVC < VLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentTopVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.021\_5: Finger Segment Position(s) - Bottom Vertical Coordinate (BVC)**

**Description:**

The fifth information item is the bottom vertical coordinate value / BVC. It is the vertical offset from the upper left corner of the image down to the bottom of the bounding box. It is counted in pixels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	TVC < BVC < VLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentBottomVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.022: NIST Quality Metric (NQM)**

**Description:**

This ASCII field shall contain the NIST Fingerprint Image Quality (NFIQ) scores for the individual finger(s) derived from the slap impressions or individual rolled fingerprints. It consists of two information items. These two information items are separated. Individual finger quality definitions are separated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageNISTQuality

XML Min/Max: 0 / 5

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.022\_0: NIST Quality Metric (NQM\_0)**

**Description:**

This ASCII field shall contain the NIST Fingerprint Image Quality (NFIQ) scores for the individual finger(s) derived from the slap impressions or individual rolled fingerprints. It consists of two information items. The first item is the finger number between one and ten. The second item is the quality score which is a quantitative expression of the predicted AFIS matcher accuracy performance of the fingerprint image. The scores range from "1" for the best quality im image. A "254" indicates that no score was ever computed while an entry of "255" shall indicate a failed attempt to calculate the image quality metric. These two information items are separated. Individual finger quality definitions are separated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	5
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.022\_1: NIST Quality Metric - Friction Ridge NIST Quality Position (FRNP)**

**Description:**

The first item is the friction ridge NIST quality position / FRNP between one and ten or 16 or 17, as chosen from Table 9 of the ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FRNP ≤ 10 or FGP = 16 or 17; see Look Up Codes

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerprintImageNISTQualityitl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.022\_2: NIST Quality Metric - NIST Image Quality Score (IQS)**

**Description:**

This information item is the NIST image quality score / IQS which is a quantitative expression of the predicted AFIS matcher accuracy performance of the fingerprint image. The scores range from "1" for the best quality image, to "5" for the worst quality image. A "254" indicates that no score was ever computed while an entry of "255" shall indicate a failed attempt to calculate the image quality metric.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ IQS ≤ 5 or IQS = 254 or 255; integer

Code List: NIST IMAGE QUALITY SCORE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageNISTQuality

NIEM Element: biom:NISTQualityMeasure

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.023: Segmentation Quality Metric (SQM)**

**Description:**

This ASCII field provides a measure of estimated correctness regarding the accuracy of the location of the segmented finger within the right or left four finger (which may include extra digits, if applicable) or two thumbs slap image. A subfield shall exist for each segmented finger [2015n+] and quality algorithm combination (up to 9 algorithms are allowed for each finger). [<2015n]. Each subfield consists of four information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageSegmentationQuality

XML Min/Max: 0 / 45

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.023\_0: Segmentation Quality Metric - Subfield: Repeating sets of information items (SQM\_0)**

**Description:**

This ASCII field provides a measure of estimated correctness regarding the accuracy of the location of the segmented finger within the right or left four finger or two thumbs slap image. For each segmented finger, this field shall contain four information items separated. The first information item is the finger number between one and ten. The other three items identify a quality score and the algorithm used to create the quality score. T recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as necessary.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	45
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.023\_1: Segmentation Quality Metric - Friction Ridge Segment Quality Position (FRQP)**

**Description:**

The first information item is the friction ridge segment quality position / FRQP between one and ten or 16 or 17, as chosen from Table 9 of the ANSI/NIST-ITL update 2015. The FRQP values shall be in the set of either the FRSP or FRAS values contained in this record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FRQP ≤ 10 or FRQP = 16 or 17; see Look Up Codes

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentationQuality

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.023\_2: Segmentation Quality Metric - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ QVU ≤ 100 or QVU = 254 or 255; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentationQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.023\_3: Segmentation Quality Metric - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentationQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.023\_4: Segmentation Quality Metric - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, which may be registered with the IBIA, but it is not required to be registered. It indicates which of the vendor's algorithms was used in the calculation of the quality score. This field contains the ASCII representation of the integer product code and should be within the range 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ QAP ≤ 65535; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentationQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-14: Variable-Resolution Fingerprint Image

**14.024: Fingerprint Quality Metric (FQM)**

**Description:**

This optional field shall specify one or more different metrics of fingerprint image quality score data for the image stored in this record. The meaning attributed to this metric must be defined and interpreted by the producer of the scoring algorithm or by the person or system used to assign the metric to the fingerprint image. The metric may be a predictor of AFIS matcher accuracy performance indicate a value associated with the quality of the fingerprint image for a particular function. A subfield shall exist for each segmented finger and quality algorithm combination (up to 9 algorithms are allowed for each finger). Each subfield consists of four information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageQuality

XML Min/Max: 0 / 45

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.024\_0: Fingerprint Quality Metric - Subfield: Repeating sets of information items (FQM\_0)**

**Description:**

This ASCII field is used to specify one or more different metrics of fingerprint image quality score data for the image stored in this record. The meaning attributed to this metric must be defined and interpreted by the producer of the scoring algorithm or by the person or system used to assign the metric to the fingerprint image. The metric may be a predictor of AFIS matcher accuracy performance indicate a value associated with the quality of the fingerprint image for a particular function. This field may contain one or more subfields, each consisting of four information items separated. The first information item is the finger number. The other algorithm used to create the quality score. This information is useful to enable the recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as needed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	45
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.024\_1: Fingerprint Quality Metric - Friction Ridge Metric Position (FRMP)**

**Description:**

The first information item is the friction ridge metric position / FRMP between one and ten or 16 or 17, as chosen from Table 9 of the ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FRMP ≤ 10 or FGP = 16 or 17; see Look Up Codes

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageQuality

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.024\_2: Fingerprint Quality Metric - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ QUV ≤ 100 or QVU = 254 or 255; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.024\_3: Fingerprint Quality Metric - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.024\_4: Fingerprint Quality Metric - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, which may be registered with the IBIA, but it is not required to be registered. It indicates which of the vendor's algorithms was used in the calculation of the quality score. This field contains the ASCII representation of the integer product code and should be within the range 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ QAP ≤ 65535; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.025: Alternate Finger Segment Position (ASEG)**

**Description:**

This optional field is an alternate approach to describing the locations for each of the image segments of the individual fingers within a flat image containing the capture of four (or more if extra digits exist on the hand) simultaneous fingers or two simultaneous thumbs. This field uses an n-vertex polygon to encompass each finger image segment, where “n” is between 3 and 99. The order of the vertices must be in their consecutive order around the perimeter of the polygon, either clockwise or counterclockwise. No two vertices may occupy the same location. The polygon side defined by the last subfield and the first subfield shall complete the polygon. The polygon must be a simple, plane figure with no sides crossing and no interior holes. This field shall consist of up to five subfields: the segmentation for each finger is represented in a different subfield.

<b>Field Minimum</b>	<b>Field Maximum</b>	<b>Occurrence Minimum</b>	<b>Occurrence Maximum</b>
n/a	n/a	0	1
<b>Character Types</b>	<b>Special Characters</b>	<b>Format</b>	<b>Constraints</b>
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageSegmentPositionPolygon

XML Min/Max: 0 / 5

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.025\_0: Alternate Finger Segment Position - Subfield: Repeating sets of information items (ASEG\_0)**

**Description:**

This ASCII field is an alternate approach to describing the locations for each of the image segments of the individual fingers within a flat image containing the capture of four simultaneous fingers or two simultaneous thumbs. This field uses an n-vertex polygon to encompass each finger image segment, where "n" is between 3 and 99. The order of the vertices must be in their consecutive order around the perimeter of the polygon, either clockwise or counterclockwise. No two vertices share the same location. The polygon side defined by the last subfield and the first subfield shall complete the polygon. The polygon must be a simple, plane figure with no sides crossing and no interior holes. This field shall consist of one to four subfields. Each subfield is between 1 and 10, the total number of vertices of the polygon encompassing the finger, and the set of consecutive vertices. Each vertex shall be represented as horizontal and vertical pixel offsets relative to the origin positioned in the upper left corner. The horizontal offsets (X) are the pixel counts to the right, and the vertical offsets (Y) are the pixel counts down from the origin. A minimum of three points is required to describe a finger location. The finger number, the number of vertices, each X coordinate, and each Y coordinate. Subfields representing each finger are separated.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	5
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionPolygon

NIEM Element: biom:PositionPolygonVertex

XML Min/Max: 3 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.025\_1: Alternate Finger Segment Position - Friction Ridge Alternate Segment Position (FRAS)**

**Description:**

The first information item (friction ridge alternate segment position / FRAS) is the finger number from Table 9 of the ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ FRAS ≤ 10 or FRAS = 16 or 17; see Look Up Codes

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionPolygon

NIEM Element: biom:FingerPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.025\_2: Alternate Finger Segment Position - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	3 ≤ NOP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionPolygon

NIEM Element: biom:PositionPolygonVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.025\_3: Alternate Finger Segment Position - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ HPO < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionPolygon/  
biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.025\_4: Alternate Finger Segment Position - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ VPO < VLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:FingerprintImageSegmentPositionPolygon/  
biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.026: Simultaneous Capture (SCF)**

**Description:**

This optional field allows the user to link together fingerprint images that were captured simultaneously. Note that this is different from the IDC. This is used, for instance, when individual flat print are captured on different platens simultaneously. Such images should not be stitched together for transmission as a single multiple-finger print image, but they should be coded with the same SCF value to indicate that they were captured simultaneously, and that there is little possibility of a mistaken fingerprint code. The SCF is a 1-based numeric index that is incremented for each simultaneously captured set of images, and shall be omitted otherwise.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SCF ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintSimultaneousCaptureID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.027: Stitched Image Flag (SIF)**

**Description:**

This field signifies that images captured separately were stitched together to form a single image. This field is mandatory if an image has been stitched, and the value shall be set to 'Y'. Otherwise, this field shall not appear in the record. This field is not intended to apply to a single rolled image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	SIF = Y

Code List: STITCHED IMAGE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageStitchedIndicator

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-14: Variable-Resolution Fingerprint Image

**14.030: Device Monitoring Mode (DMM)**

**Description:**

This field provides information describing the level of human monitoring associated with the biometric sample capture. This field will contain alphabetic values from Table 6 Device monitoring mode from ANSI/NIST-ITL update 2015 to indicate the monitoring mode of the biometric sample capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
7	10	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	see Table 6

Code List: CAPTURE DEVICE MONITORING MODE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDeviceMonitoringModeCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.031: Subject Acquisition Profile - Fingerprint (FAP)**

**Description:**

The profile levels for fingerprint acquisition are optional and are based upon those listed in the Mobile ID Best Practice Recommendation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	FAP = 10, 20, 30, 40, 45, 50, 60, 145, 150 or 160; integer; see table 14

Code List: FINGERPRINT ACQUISITION PROFILE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FingerprintImageAcquisitionProfileCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.046: Image Subject Condition (SUB)**

**Description:**

This field is optional. There may be different values for SUB in different instances of Type-14 records. For example, some images may have been acquired antemortem, while others were acquired post-mortem. This field describes the condition of the subject at the time of imaging.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:SubjectExistentialDetails

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**14.046\_1: Image Subject Condition - Subject Status Code (SSC)**

**Description:**

This information item is mandatory if this field is present. It is subject status code / SSC. Possible entries are: X = Status of individual unknown, A = Data obtained from a living person – such as a victim or person unable to identify themselves or D = Data obtained from a non-living person (deceased)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	SSC = X, A, or D

Code List: SUBJECT STATUS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectExistentialStatusCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.046\_2: Image Subject Condition - Subject Body Status Code (SBSC)**

**Description:**

This information item shall be entered if and only if SSC is D. It is subject body status code / SBSC. Its purpose is to indicate whether the information relates to an entire corpse or a separate body part. The numeric value is selected from these descriptors: 1 = Whole or 2 = Fragment

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBSC = 1 or 2

Code List: SUBJECT BODY STATUS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyStatusCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**14.046\_3: Image Subject Condition - Subject Body Class Code (SBCC)**

**Description:**

This information item shall be entered if and only if SSC is D. It is subject body class code/ SBCC. The numeric value is selected from these descriptors: 1 = Natural Tissue or 2 = Decomposed

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBCC = 1 or 2

Code List: SUBJECT BODY CLASS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.047: Capture Organization Name (CON)**

**Description:**

This field is optional. Note that this can be different from the agency entered in Field 14.004: Source agency / SRC and Field 14.993: Source agency name / SAN. SRC and SAN describe the agency that created the record. Since the record may have been forwarded by another agency to the final destination, Field 1.008: Originating agency identifier / ORI is used to indicate the transmitting organization. In many implementation domains, there are a limited number of transmission organizations that can send data. Therefore, the agency listed in SRC may send the transaction to another location that has access rights to the final destination. This intermediary may add information to the transaction, as well. The final transmitting organization code is listed in Field 1.008: Originating agency identifier / ORI. Its name may be entered in Originating agency name /OAN in Field 1.017: Agency names / ANM.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	none

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationUnitName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**14.901: Friction Ridge Capture Technology (FCT)**

**Description:**

This is an optional field. It is a one or two-digit code signifying the type of technology that was used to capture the print for transmission. For exemplar prints conveyed in Type-14 records, the only valid codes are 0 through 7, inclusive and 9 through 17 inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ FCT ≤ 7 or 9 ≤ FCT ≤ 17; see Table 11

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail

NIEM Element: biom:FrictionRidgeCaptureTechnologyCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.902: Annotated Information (ANN)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms or latent workstations (other than the FBI developed ULW).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.902\_0: Annotated Information (ANN\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms or latent workstations (other than the FBI developed ULW).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the annotation occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

The second information item of the Type-14 Annotated Information field shall contain an unformatted text string of up to 64 characters identifying the name and version of the processing algorithm or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

The third information item Type-14 Annotated Information field shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

The fourth and final information item of the Type-14 Annotated Information field shall contain an unformatted text string of up to 255 characters describing a process or procedure applied to the sample in this Type-XX record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.903: Device Unique Identifier (DUI)**

**Description:**

The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of: Host PC MAC address, identified by the first character "M", or Host PC processor ID, identified by the first character "P". Note: ANSI/NIST ITL 1-2011 has deleted the options for "Serial number or No serial number" from Field 17.017, since it is available in the Make / Model / Serial Number field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
13	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	first character = M or P

Code List: DEVICE UNIQUE IDENTIFIER CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.904: Make/Model/Serial Number (MMS)**

**Description:**

The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-14: Variable-Resolution Fingerprint Image

**14.904\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.904\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.904\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field 14.004: Source agency / SRC for record types 9-99.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageFingerImpressionImageRecord/biom:FingerImpressionImageDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.994: External File Reference (EFR)**

**Description:**

This conditional field shall be used to enter the URL/URI or other unique reference to a storage location for all digital representations, if the data is not contained in Field 14.999: Fingerprint image / DATA. If this field is used, Field 14.999 shall not be set. Only one of the two fields may be present in all instances of this record type. It is highly recommended that the user state the format of the external file in Field 14.021: Comment / COM. Neither Field 14.994 nor Field 14.999 need be in the record when Field 14.018: Amputated or bandaged / AMP has a value of "UP".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	1	1
Character Types	Special Characters	Format	Constraints
U		n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord

NIEM Element: biom:SourceExternalFileReferenceText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**14.995: Associated Context (ASC)**

**Description:**

Optional field 14.995 is contained in biometric data sample Record Types 10 and above that may have instances of Record Type-21 linked to it. Record Type-21 stores images and/or recordings that are not the actual source of the biometric data contained in another Record Type, but do show the context of the biometric data. An example would be a photograph of a glass that had latent prints on it. This is because there may be multiple instances of associated context records associated with a single biometric sample.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.995\_0: Associated Context (ASC\_0)**

**Description:**

Optional field 14.995 is contained in biometric data sample Record Types 10 and above that may have instances of Record Type-21 linked to it. Record Type-21 stores images and/or recordings that are not the actual source of the biometric data contained in another Record Type, but do show the context of the biometric data. An example would be a photograph of a glass that had latent prints on it. This is because there may be multiple instances of associated context records associated with a single biometric sample.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**14.995\_1: Associated Context Number (ACN)**

**Description:**

The first information item for the Associated Context field for a particular Record Type-21. This is mandatory for each Field 14.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number / CAN. The value of the CAN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ ACN ≤ 255, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.995\_2: Associated Context Number - Associated Segment Position (ASP)**

**Description:**

The first information item is the associated segment position / ASP. This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ASP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.996: Hash (HAS)**

**Description:**

Optional field 14.996, is designed for use in Record types 10 and above with a Field xx.999 storing the biometric data. It is comprised of 64 characters representing hexadecimal values. This field shall contain the hash value of the data in Field 14.999: Thus, each character may be a digit from "0" to "9" or a letter "A" through "F". See the latest version of the Federal Information Processing Standard 180, Secure Hash Standard for information on computing SHA-256 hashes. At the time of this standard's publication, FIPS 180-37 had been published. It is also possible to use Field xx.996 to contain the hash for data stored externally, which is referenced in Field 20.994: External file reference / EFR and /or Field 21.994: Ex The ability to store files externally is new to this version of the standard, and is only implemented for the two new record types referred to here. Use of the hash enables the receiver of the data to perform quick searches of large databases to determine database. It is not intended as an information assurance check. That is handled by Record Type-98: Information assurance record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord

NIEM Element: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.997: Source Representation (SOR)**

**Description:**

This optional field 14.997 is allowed in biometric data sample Record Types 10 and above that could have the biometric sample derived from a source representation in Record Type-20. The biometric data is stored in Field 14.999.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.997\_0: Source Representation - Subfield: Repeating sets of information items (SOR\_0)**

**Description:**

This optional field 14.997 is allowed in biometric data sample Record Types 10 and above that could have the biometric sample derived from a source representation in Record Type-20. The biometric data is stored in Field 14.999.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.997\_1: Source Representation - Source Representation Number (SRN)**

**Description:**

This is the first information item and is mandatory for each Field xx.997. It contains an index to a particular instance of a Type-20 record in the transaction. This same index value appears in the appropriate instance of Record Type-20 as Field 20.021: Source representation number / SRN. The value of the SRN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SRN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:SourceInformation

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.997\_2: Source Representation - Reference Segment Position (RSP)**

**Description:**

The second information item is the reference segment position / RSP. This optional field provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RSP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord/biom:SourceInformation

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the fingerprint sample was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a, BiometricCaptureType	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_1: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
dependent on encoding	dependent on encoding	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-14: Variable-Resolution Fingerprint Image

**14.998\_2: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign	n/a	-90 ≤ LTD ≤ 90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_3: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.998\_4: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_5: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.998\_6: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_7: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.998\_8: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 ≤ ELE ≤ 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_9: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**14.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html>.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-14: Variable-Resolution Fingerprint Image

**14.999: Fingerprint Image (DATA)**

**Description:**

This conditional field, if present, contains the fingerprint image. If field 14.994: External file reference / EFR is present in the record, then this field shall not appear. See Section 7.2 of ANSI/NIST ITL update 2015 for details. Neither Field 14.999 nor Field 14,994 need be present in the record when Field 14.018: Amputated or bandaged / AMP has a value of "UP". [<2015n] Some domains and application profiles may still require an image in this field (such as the word "Amputated").

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
B	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageFingerImpressionImageRecord

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: dod-ebts:RecordCategoryCode

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-15: Variable-Resolution Palmprint Image

**15.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character (IDC). The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IDC ≤ 99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.003: Impression Type (IMP)**

**Description:**

This mandatory field shall indicate the manner by which the friction ridge print was obtained.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	IMP = 10, 11, 24, 25, 28, 29, 41 or 42

Code List: FRICTION RIDGE IMPRESSION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:biom:FingerImpressionImageDetailType

NIEM Element: biom:ImpressionCaptureCategoryCodeType

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.004: Source Agency (SRC)**

**Description:**

This is the identifier of the agency that actually created the record and supplied the information contained in it.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:TransactionOriginatingAgency

NIEM Element: itl:TransactionAgencyType

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.005: Palmprint Capture Date (PCD)**

**Description:**

This ASCII field shall contain the date that the palmprint image contained in the record was captured. The date shall appear as eight digits in the format YYYYMMDD.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent on encoding	Dependent on encoding	1	1
Character Types	Special Characters	Format	Constraints
Dependent on encoding	None	YYYYMMDD	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:CaptureDate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.006: Horizontal Line Length (HLL)**

**Description:**

HLL defines the number of pixels contained on a single horizontal line of the image. The maximum horizontal size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. The total image size (HLL times VLL) must be able to be accommodated in Field xx.001 for Traditional encoding. This field is mandatory if an image is present in Field 17.999: Iris image data (DATA). Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ HLL ≤ 99999; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:HorizontalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.007: Vertical Line Length (VLL)**

**Description:**

VLL defines the number of horizontal lines contained in the image. The maximum vertical size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. This field is mandatory if an image is present in Field 17.999: Iris image data (DATA). Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ VLL ≤ 99999; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:VerticalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.008: Scale Units (SLC)**

**Description:**

This field is the image sampling frequency (pixel density). A value of "1" shall indicate pixels per inch. A value of "2" shall indicate pixels per centimeter. A value of "0" in this field indicates that no scale is provided, and the quotient of THPS/TVPS shall provide the pixel aspect ratio. For contact exemplar friction ridge images, a value of 1 or 2 shall be specified. For a value of 1 or 2, the transmitted horizontal and vertical scales shall be the same. A value of 1 or 2 shall also be specified for latent friction ridge prints if the lifted latent print is transmitted directly from a scanner. If the latent print is contained in a photograph, a value of 1 or 2 shall be entered only if the image of the latent was captured with a scale measurement visible in the image and the pixels across an inch or centimeter can be calculated – given the known characteristics of the camera and its distance from the latent print. A value of 0 for a latent print indicates that the true ppi value of the image is not known. For non-contact images of body parts, SLC shall be set to 0 unless the object being imaged is a fixed distance from the capture device and the ppi or pppm values for the capture device are accurately known at that fixed distance. (An example might be an iris capture device with a very small effective capture zone). NGI-DOC-01078-10.0 - For A value of "0" in this field indicates that no scale is provided, and NGI will reject transactions containing this value.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ SLC ≤ 2; integer

Code List: SCALE UNIT CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:ImageScaleUnitsCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.009: Transmitted Horizontal Pixel Scale (THPS)**

**Description:**

This is the integer pixel density used in the horizontal direction of the image if SLC has a value of “1” or “2”. If SLC has a value of “0”, this information item shall contain the horizontal component of the pixel aspect ratio, up to 5 integer digits. For example, if the SLC value = 1, then the value of THPS could be ‘1000’ for a 1000 ppi sensor. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used. Any value greater than x.0 and less than x.5 would be rounded down to x, regardless of the number of significant digits to the right of the decimal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:ImageHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.01: Transmitted Vertical Pixel Scale (TVPS)**

**Description:**

This is the integer pixel density used in the vertical direction of the image if SLC has a value of “1” or “2”. If SLC has a value of “0”, this information item shall contain the vertical component of the pixel aspect ratio, up to 5 integer digits. If SLC is 1 or 2, then TVPS shall equal THPS. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding up at .5 should be used. For example with the values 1.3, 1.5 and 1.8 the resulting TVPS values would be 1, 2, and 2.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:ImageVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.011: Compression Algorithm (CGA)**

**Description:**

This is a mandatory field. It shall specify the algorithm used to compress the transmitted color or grayscale images.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	See Table 19 Compression codes in ANSI/NIST-ITL update 2015.

Code List: COMPRESSION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ImageCompressionAlgorithmText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.012: Bits Per Pixel (BPX)**

**Description:**

This ASCII field shall contain the number of bits used to represent a pixel. This field shall contain an entry of "8" for normal grayscale values of "0" to "255" or each RGB color component. Any entry in this field greater than "8" shall represent a grayscale or color pixel component with increased precision. For color, BPX represents the total number of bits per pixel (not per color).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	8 ≤ BPX ≤ 99

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:ImageBitsPerPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.013: Friction Ridge Generalized Position (FGP)**

**Description:**

This field is used in Record types dealing with friction ridges. It specifies which friction ridge biometric sample was collected. This field shall contain the palm print position that matches the palm print image. Valid codes range from 20 to 38, or 81 to 86228.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	20 ≤ FGP ≤ 38 or 81 ≤ FGP ≤ 86; see Look Up Codes	n/a	n/a

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Missing from biom:PalmPrintDetailType

NIEM Element: biom:PalmPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.016: Scanned Horizontal Pixel Scale (SHPS)**

**Description:**

This ASCII field shall specify the horizontal pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the horizontal component of the pixel aspect ratio. This field is used if the transmission pixel scale differs from the original image scale, as listed in Transmitted horizontal pixel scale (THPS).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:CaptureHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.017: Scanned Vertical Pixel Scale (SVPS)**

**Description:**

This ASCII field shall specify the vertical pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the vertical component of the pixel aspect ratio.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:CaptureVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.018: Amputated or Bandaged (AMP)**

**Description:**

This optional field shall specify if one or more fingers are amputated or bandaged. This field shall consist of one subfield for each amputated or missing finger. Each subfield shall contain two information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:PalmprintImageMissingArea

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-15: Variable-Resolution Palmprint Image

**15.018\_0: Amputated or Bandaged - Subfields: Repeating sets of information items (AMP\_0)**

**Description:**

This optional field shall specify if one or more fingers are amputated or bandaged. This field shall consist of one subfield for each amputated or missing finger. Each subfield shall contain two information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageMissingArea

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.018\_1: Amputated or Bandaged - Friction Ridge Amputation or Bandage Position (FRAP)**

**Description:**

The first information item of the amputated and bandaged field indicating the friction ridge position between 21 and 38 or 81 through 86. This information item is called the friction ridge amputated or bandaged position / FRAP to differentiate it from FGP.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	21 ≤ FRAP ≤ 38 or 81 ≤ FRAP ≤ 86; see Look Up Codes

Code List: PALM POSITION (NIST)

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageMissingArea

NIEM Element: biom:PalmPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.018\_2: Amputated or Bandaged - Amputated or Bandaged Code (ABC)**

**Description:**

This information item provides the code that describes the reason the finger's image is missing.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	ABC = XX or UP

Code List: AMPUTATED OR BANDAGED CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageMissingArea

NIEM Element: biom:PalmMissingAreaReasonCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.02: Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:ImageCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.021: Palm Segment Position (SEG)**

**Description:**

Contains offsets to the locations of image segments containing the individual fingers within the flat images of simultaneous fingers from each hand or the two simultaneous thumbs. This field shall only be present if FGP = 20, 21, 23, 37, 38, 83 or 84 from as entered in Field 15.013: Friction ridge generalized position (FGP). The subfield occurs at least once, and may be repeated if more than one algorithm is used to segment the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerImpressionImageDetailType

NIEM Element: biom:FingerprintImageSegmentPositionSquare

XML Min/Max: 0 / 17

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.021\_0: Palm Segment Position - Subfields: Repeating sets of information items (SEG\_0)**

**Description:**

Contains offsets to the locations of image segments containing the individual fingers within the flat images of simultaneous fingers from each hand or the two simultaneous thumbs. This field shall only be present if FGP = 20, 21, 23, 37, 38, 83 or 84 from as entered in Field 15.013: Friction ridge generalized position (FGP). The subfield occurs at least once, and may be repeated if more than one algorithm is used to segment the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	17
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerprintImageSegmentPositionSquare

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.021\_1: Palm Segment Position - Friction Ridge Segment Position (FRSP)**

**Description:**

The first information item is the friction ridge segment position / FRSP with values of 22, 24 – 36, 81, 82, 85 or 86 selected. This information item is called the friction ridge segment position / FRSP to differentiate it from FGP.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	FSRP = 22, 24-36, 81, 82, 85 or 86; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:PalmPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.021\_5: Palm Segment Position - Bottom Vertical Coordinate Value (BVC)**

**Description:**

This field contained the vertical offset from the upper left corner of the image down to the bottom of the bounding box.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	TVC < BVC < VLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentBottomVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.021\_2: Palm Segment Position - Left Horizontal Coordinate Value (LHC)**

**Description:**

This field described the horizontal offset in pixels to the left edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ LHC < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentLeftHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.021\_3: Palm Segment Position - Right Horizontal Coordinate Value (RHC)**

**Description:**

This field describes the horizontal offset in pixels to the right edge of the bounding box relative to the origin positioned in the upper left corner of the image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	LHC < RHC < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentRightHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.021\_4: Palm Segment Position - Top Vertical Coordinate Value (TVC)**

**Description:**

This field contains the vertical offset (pixel counts down) to the top of the bounding box.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ TVC < VLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:FingerprintImageSegmentPositionSquare

NIEM Element: biom:SegmentTopVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.023: Scanned Vertical Pixel Scale (SVPS)**

**Description:**

This ASCII field shall specify the vertical pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the vertical component of the pixel aspect ratio. This field is used if the transmission pixel scale differs from the original image scale, as listed in Transmitted Vertical Pixel Scale (TVPS).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: FBI EBTS

Status: Active

XML Parent: biom:CaptureVerticalPixelDensityValue

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.024: Palm Quality Metric (PQM)**

**Description:**

This ASCII set is used to specify one or more different metrics of palm image quality score data for the image stored in this record. The meaning attributed to this metric must be defined and interpreted by the producer of the scoring algorithm or by the person or system used to assign the metric to the palm print image. This field may contain one or more subfields, each consisting of four information items. The first information item is the palm code. The other three items identify a quality score and the algorithm used to create the quality score. This information is useful to enable the recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as necessary. Valid codes range from 20 to 38, and 81 to 86.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPrintImageDetailType

NIEM Element: biom:PalmprintImageQuality

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.024\_0: Palm Quality Metric - Subfields: Repeating sets of information items (PQM\_0)**

**Description:**

This ASCII set is used to specify one or more different metrics of palm image quality score data for the image stored in this record. The meaning attributed to this metric must be defined and interpreted by the producer of the scoring algorithm or by the person or system used to assign the metric to the palm print image. This field may contain one or more subfields, each consisting of four information items. The first information item is the palm code. The other three items identify a quality score and the algorithm used to create the quality score. This information is useful to enable the recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as necessary. Valid codes range from 20 to 38, and 81 to 86.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageQuality

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.024\_1: Palm Quality Metric - Friction Ridge Metric Position (FRMP)**

**Description:**

The first information item of a quality metric field indicating the friction ridge position. Valid codes range from 20 to 38, and 81 to 86

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	20 ≤ FRMP ≤ 38 or 81 ≤ FRMP ≤ 86; positive integer

Code List: FRICTION RIDGE POSITION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmPositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.024\_2: Palm Quality Metric - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ QVU ≤ 100 or QVU = 254 or 255; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-15: Variable-Resolution Palmprint Image

**15.024\_3: Palm Quality Metric - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.024\_4: Palm Quality Metric - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, which may be registered with the IBIA, but it is not required to be registered. It indicates which of the vendor's algorithms was used in the calculation of the quality score. This field contains the ASCII representation of the integer product code and should be within the range 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ QAP ≤ 65535; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.03: Device Monitoring Mode (DMM)**

**Description:**

This field provides information describing the human monitoring operation of the image capture device. This field will contain an entry from to indicate the monitoring mode of the biometric sample capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
7	10	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	See Table 6 Device monitoring mode in ANSI/NIST-ITL update 2015.

Code List: CAPTURE DEVICE MONITORING MODE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:CaptureDeviceMonitoringModeCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.031: Subject Acquisition Profile\_Palm Print (PAP)**

**Description:**

This optional field lists the PAP levels associated with palm print acquisition devices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	PAP = 70, 80, 170 or 180 see Lookup Values

Code List: Table 16

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.046: Image Subject Condition (SUB)**

**Description:**

This field is optional. This field is particularly useful if the image is obtained from a deceased person. However, its use is not limited to such circumstances. Some implementation domains support the submission of fingerprints taken from deceased individuals as latent prints, due to the quality of the friction ridges and the resulting images. In such cases, SSC is specified as D. For latent images taken from a surface, the value is typically X. There may be different values for SUB in different instances of Type-15 records.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a		

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmprintImageQuality

NIEM Element: biom:SubjectExistentialDetails

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.046\_1: Image Subject Condition - Subject Status Code (SSC)**

**Description:**

The first information item is mandatory if this field is present. It is subject status code (SSC).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	SSC = X, A or D

Code List: SUBJECT STATUS CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:SubjectExistentialDetails

NIEM Element: biom:SubjectExistentialStatusCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.046\_2: Image Subject Condition - Subject Body Status Code (SBSC)**

**Description:**

The second information item shall be entered if and only if SSC is D. It is subject body status code (SBSC). Its purpose is to indicate whether the information relates to an entire corpse or a separate body part.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBSC = 1 or 2

Code List: SUBJECT BODY STATUS CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyStatusCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.046\_3: Image Subject Condition - Subject Body Class Code (SBCC)**

**Description:**

The third information item shall be entered if and only if SSC is D. It is subject body class code (SBCC).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBCC = 1 or 2

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.047: Capture Organization Name (CON)**

**Description:**

This field is optional. Note that this can be different from the agency entered in Field 13.004: Source agency (SRC) and Field 13.993: Source agency name (SAN). SRC and SAN describe the agency that created the record. Since the record may have been forwarded by another agency to the final destination, Field 1.008: Originating agency identifier (ORI) is used to indicate the transmitting organization. In many implementation domains, there are a limited number of transmission organizations that can send data. Therefore, the agency listed in SRC may send the transaction to another location that has access rights to the final destination. This intermediary may add information to the transaction, as well. The final transmitting organization code is listed in Field 1.008: Originating agency identifier (ORI). Its name may be entered in Originating agency name (OAN) in Field 1.017: Agency names (ANM). The final transmitting organization code is listed in Field 1.008: Originating agency identifier / ORI. Its name may be entered in Originating agency name /OAN in Field 1.017: Agency names / ANM.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:PalmpPrintImageQuality

NIEM Element: nc:OrganizationUnitName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.200: Image Source Code (ISC)**

**Description:**

This optional numeric field indicates to which source the included image belongs. This field allows images from multiple biometric sets that use the same record type to be distinguishable. Two different values are used for the Palmprint card to distinguish between the index finger image on the front of the card and the index finger that is part of the set of five finger images on the back of the card. Livescan palm capture should use value

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
0	2	0	*
Character Types	Special Characters	Format	Constraints
N	None	n/a	ISC = 1, 2, 3, or 4

Code List: ISC CODE

Source: FBI EBTS

Status: Active

XML Parent: fbi-ebts:ImageSourceCode

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.901: Friction Ridge Capture Technology (FCT)**

**Description:**

This is an optional field. It is a one or two-digit code signifying the type of technology that was used to capture the print for transmission. See Section 7.7.4.5 for more detail and the meanings of the codes. For exemplar prints conveyed in Type-15 records, the only valid codes are 0 through 7, inclusive and 9 through 17 inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ FCT ≤ 7 or 9 ≤ FCT ≤ 17; see Lookup code

Code List: Table 11

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.902: Annotated Information (ANN)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.902\_0: Annotated Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-15: Variable-Resolution Palmprint Image

**15.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-9 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.903: Device Unique Identifier (DUI)**

**Description:**

The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of the following: a Host PC MAC address (identified by the first character "M"), a Host PC processor ID (identified by the first character "P").

since it is available in the Make / Model / Serial Number field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
13	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	first character = M or P

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:CaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.904: Make/Model/Serial Number (MMS)**

**Description:**

The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Unknown information may be indicated with the value "0." Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:BiometricCapture

NIEM Element: biom:CaptureDevice

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.904\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:DeviceType

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.904\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:DeviceType

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.904\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:DeviceType

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field xx.004: Source agency / SRC for record types 9-99.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:BiometricCapture

NIEM Element: biom:CaptureOrganization

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.994: External File Reference (EFR)**

**Description:**

This conditional field shall be used to enter the URL/URI or other unique reference to a storage location for all digital representations, if the data is not contained in Field 15.999: Palm print image / DATA. If this field is used, Field 15.999: Palm print image / DATA shall not be set. However, one of the two fields shall be present in all instances of this record type. It is highly recommended that the user state the format of the external file in Field 15.020: Comment / COM. Type-15 records generally contain an image in Field 15.999: Palm print image / DATA, or an external reference to an image in Field 15.994: External file reference / EFR, but not both. Fields 15.994 and 15.999 are optional only if Field 15.018: Amputated or bandaged / AMP has a value of "UP". Fields 15.003, and 15.006 through 15.012 are mandatory if either Field 15.994 or 15.999 is used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: No EFR tag in XSD

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.995: Associated Context (ASC)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.995\_0: Associated Context - Subfields: Repeating sets of information items (ASC\_0)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:AssociatedContext

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item for the Associated Context field for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (CAN). The value of the CAN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ ACN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The first information item is the associated segment position (ASP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ASP ≤ 99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.996: Hash (HAS)**

**Description:**

Optional field xx.996, is designed for use in Record types 10 and above with a Field xx.999 storing the biometric data. It is comprised of 64 characters representing hexadecimal values. Thus, each character may be a digit from “0” to “9” or a letter “A” through “F”. See the latest version of the Federal Information Processing Standard 180, Secure Hash Standard for information on computing SHA-256 hashes. At the time of this standard’s publication, FIPS 180-37 had been published. It is also possible to use Field xx.996 to contain the hash for data stored externally, which is referenced in Field 20.994: External file reference (EFR) and/or Field 21.994: External file reference (EFR). The ability to store files externally is new to this version of the standard, and is only implemented for the two new record types referred to here. Use of the hash enables the receiver of the data to perform quick searches of large databases to determine if the data already exist in the database. It is not intended as an information assurance check. That is handled by Record Type-98: Information assurance record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.997: Source Representation (SOR)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 13.999: Latent friction ridge image (DATA) was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:SourceInformationType

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.997\_0: Source Representation - Subfields: Repeating sets of information items (SOR\_0)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 13.999: Latent friction ridge image (DATA) was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:SourceInformationType

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**15.997\_1: Source Representation - Source Representation Number (SRN)**

**Description:**

This is the first information item and is mandatory for each Field xx.997. It contains an index to a particular instance of a Type-20 record in the transaction. This same index value appears in the appropriate instance of Record Type-20 as Field 20.021: Source representation number (SRN). The value of the SRN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SRN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:SourceInformationType

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-15: Variable-Resolution Palmprint Image

**15.997\_2: Source Representation - Reference Segment Position (RSP)**

**Description:**

The first information item is the reference segment position (RSP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RSP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:SourceInformationType

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the iris sample/original source/context information was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z is indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
dependent on encoding	dependent on encoding	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	1	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign	n/a	-90 ≤ LTD ≤ 90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 ≤ ELE ≤ 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-15: Variable-Resolution Palmprint Image

**15.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information items specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-15: Variable-Resolution Palmprint Image

**15.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html> .

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**15.999: Palm print Image (DATA)**

**Description:**

This field contains the palm print image. It shall contain an image, unless Field 15.018: Amputated or bandaged / AMP has a value of "UP". In the latter case, the field is optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
B	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.002: Information Designation Character (IDC)**

**Description:**

This mandatory field shall contain the IDC assigned to this Type-17 record as listed in the information item IDC for this record in Field 1.003: Transaction content / CNT.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IDC ≤ 99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.003: Eye Label (ELR)**

**Description:**

This mandatory field shall contain an identifier for the eye represented by the image in the record. An entry of "0" in this field indicates that it is undefined which eye is present in this record. An entry of "1" in this field indicates that the image in this record is the subject's right eye. An entry of "2" in this field indicates that the image in this record is the subject's left eye.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	ELR = 0,1 or 2

Code List: FEATURE IDENTIFIER CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisEyePositionCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.004: Source Agency (SRC)**

**Description:**

This mandatory field is the identifier of the agency that actually created the record and supplied the information contained in it.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.005: Iris Capture Date (ICD)**

**Description:**

This mandatory field shall contain the date that the iris biometric data contained in the record was captured.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
Encoding Specific	None	YYYYMMDD for Traditional Encoding and YYYY-MM-DD for XML.	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.006: Horizontal Line Length (HLL)**

**Description:**

HLL defines the number of pixels contained on a single horizontal line of the image. The maximum horizontal size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. For Traditional encoding, the record size is limited by the maximum allowed value for Field 17.001 and the total image size in bytes must be able to be accommodated in that field. This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ HLL ≤ 99999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:HorizontalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.007: Vertical Line Length (VLL)**

**Description:**

VLL defines the number of pixels contained in a single vertical line in the image. The maximum vertical size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ VLL ≤ 99999, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:VerticalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.008: Scale Units (SLC)**

**Description:**

The image sampling frequency (pixel density). A value of “1” shall indicate pixels per inch. A value of “2” shall indicate pixels per centimeter. A value of “0” in this field indicates that no scale is provided, and the quotient of THPS/TVPS shall provide the pixel aspect ratio. This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ SLC ≤ 2, integer

Code List: SCALE UNIT CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageScaleUnitsCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.009: Transmitted Horizontal Pixel Scale (THPS)**

**Description:**

This is the integer pixel density used in the horizontal direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this information item shall contain the horizontal component of the pixel aspect ratio, up to 5 integer digits. For example, if the SLC value = 1, then the value of THPS could be '1000' for a 1000 ppi sensor. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding should be used. For example with the values 1.3, 1.5 and 1.8 the resulting THPS values would be 1, 2, and 2. Any value greater than x.0 and less than x.5 would be rounded down to x, regardless of the number of significant digits to the right of the decimal. This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.01: Transmitted Vertical Pixel Scale (TVPS)**

**Description:**

This is the integer pixel density used in the vertical direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this information item shall contain the vertical component of the pixel aspect ratio, up to 5 integer digits. If SLC is 1 or 2, then TVPS shall equal THPS. When using certain formats, such as PNG, conversion from ppm (or other scales) may result in a decimal value. Since these fields require integer values, rounding up at .5 should be used. For example with the values 1.3, 1.5 and 1.8 the resulting TVPS values would be 1, 2, and 2. This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.011: Compression Algorithm (CGA)**

**Description:**

This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent. It shall specify the algorithm used to compress the transmitted color or grayscale images. While JPEG was allowed in prior versions of this standard, it shall not be allowed for new images. Implementers may want to support JPEG decoding for handling legacy images. If legacy images were stored in JPEG, they should be converted to PNG prior to transmission, with this transformation noted in Field 17.902: Annotation information / ANN. The baseline JPEG algorithm (ISO/IEC 10918) shall not be used for Type-17 iris images. It has been shown that both false non-match and false match rates increase due to the presence of tiling artifacts introduced by JPEG's discrete cosine transform.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	CGA = NONE, PNG, JP2 or JP2L

Code List: COMPRESSION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageCompressionAlgorithmCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.012: Bits Per Pixel (BPX)**

**Description:**

This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent. This field shall contain the number of bits used to represent a pixel. This field shall contain an entry of "8" for normal grayscale values of "0" to "255" or each RGB color component. Any entry in this field greater than "8" shall represent a grayscale or color pixel component with increased precision. A maximum of 2 digits is allowed for this field. For color, BPX represents the total number of bits per pixel (not per color). For instance, BPX=24 represents a 24-bit RGB image using 8 bits for each color.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	8 ≤ BPX ≤ 99

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageBitsPerPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.013: Color Space (CSP)**

**Description:**

This field is mandatory if an image is present in Field 17.999: Iris image data / DATA. Otherwise it is absent. It shall contain an entry from Table 28 Color spaces of ANSI/NIST-ITL update 2015. If Field 17.025: Effective acquisition spectrum / EAS is set to "NIR" this field shall be set to "GRAY".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	See Table 28 Color spaces from ANSI/NIST-ITL update 2015

Code List: COLOR SPACE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageColorSpaceCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.014: Rotation Angle of Eye (RAE)**

**Description:**

This optional field shall indicate the in-plane rotation angle of the iris. Such rotation can be caused by head tilt, camera tilt, and also by the common natural rotation of the eye itself. The rotation angle of the eye encoded in this field is defined here in terms of roll of the subject's head. The angle is defined, and measured in degrees, as the angle between a line joining the pupil or iris centers of the left and right eyes, and the horizontal axis of the imaging system. an angle is positive for counter-clockwise rotation, as seen from the camera, of this line relative to the camera's horizontal axis. The value "FFFF" indicates rotation angle of eye is undefined. The in-plane eye rotation angle shall be recorded as angle = round (65535 \* angle / 360) modulo 65535. This is encoded as a hexadecimal value. For encoding angular orientation of an eye not directed toward the camera, see Field 17.041: Frontal gaze (GAZ). It may be difficult to estimate rotation using a monocular camera. In such cases, the rotation uncertainty encoded in Field 17.015: Rotation uncertainty (RAU) will be appropriately larger.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ RAE ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisEyeRotationAngleValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-17: Iris Image Data

**17.015: Rotation Uncertainty (RAU)**

**Description:**

This optional field shall indicate the uncertainty in the in-plane eye rotation given in Field 17.014: Rotation angle of eye (RAE). The rotation uncertainty is non-negative and equal to  $\lceil \text{round}(65535 * \text{uncertainty} / 180) \rceil$ . The uncertainty is measured in degrees and is the absolute value of maximum error. The value "FFFF" indicates that uncertainty is undefined. Note that this is encoded as a hexadecimal value. This field is mandatory if Field 17.014: Rotation angle of eye (RAE) is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ RAU ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisEyeRotationUncertaintyValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.016: Image Property Code (IPC)**

**Description:**

This set shall contain the image property code. It shall contain three information items. The first information item shall indicate the horizontal orientation code. The second information item shall indicate the vertical orientation code. The third information item shall indicate the specific scan type. Each information item shall be one character.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageCapture

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.016\_1: Image Property Code - Horizontal Orientation Code (IHO)**

**Description:**

This field shall be one of: “0” for Undefined, “1” for Base, or “2” for Flipped. “Base” orientation refers to images corresponding to the view facing the subject, where the nasal side of subject’s left eye or outer edge of the subject’s right eye is on the left side the of image. “Flipped” orientation refers to images where the orientation is opposite from that described for “Base”.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IHO ≤ 2, integer

Code List: IMAGE ORIENTATION CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageCapture

NIEM Element: biom:IrisImageHorizontalOrientationCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.016\_2: Image Property Code - Vertical Orientation Code (IVO)**

**Description:**

This shall be one of: “0” for Undefined, “1” for Base, or “2” for Flipped. “Base” orientation refers to images where the superior (top) edge of the eye is at the top of the image. “Flipped” orientation refers to images where the orientation is opposite from that described for “Base”.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IVO ≤ 2, integer

Code List: IMAGE ORIENTATION CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageCapture

NIEM Element: biom:IrisImageVerticalOrientationCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.016\_3: Image Property Code - Specific Scan Type (IST)**

**Description:**

This shall be one of: "0" for Undefined and "1" for Progressive. "Progressive" indicates that the image was captured using progressive scanning, in which case all image lines are generated sequentially. "2" for Interlace Frame, or "3" for Interlace fields are deprecated and shall not be used in records claiming conformance to this version of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	IST = 0 or 1; X = biom:ImageScanCategoryCodeType

Code List: SCAN TYPE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageCapture

NIEM Element: biom:IrisImageScanCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.017: Device Unique Identifier (DUI)**

**Description:**

The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of: Host PC MAC address, identified by the first character "M", or Host PC processor ID, identified by the first character "P". Note: ANSI/NIST ITL 1-2011 has deleted the options for "Serial number or No serial number" from Field 17.017, since it is available in the Make / Model / Serial Number field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
13	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	first character = M or P

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.019: Make/Model/Serial Number (MMS)**

**Description:**

This is an optional field. The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Unknown information may be indicated with the value "0." Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.019\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.019\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.019\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.02: Eye Color (ECL)**

**Description:**

This is an optional field that shall specify the subject's eye color or 'XXX' if it is unusual or unnatural, such as is the case when colored contact lenses are present and the 'real' eye color cannot be ascertained, or unknown from the image (as is the case with infra-red images).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	3	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	See Table 29 Eye color codes from ANSI/NIST-ITL update 2015

Code List: ALPHA EYE COLOR CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: j:PersonEyeColorCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.021: Comment (COM)**

**Description:**

The optional Comment field appears in many record types and may be used to insert free text information. It is not reserved exclusively for log-related information but has historically often been used for this purpose. It is limited to a maximum of 126 characters. This maximum size was established in order to maintain consistency across encodings. The maximum size differed in the 2007 and 2008 versions of the standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.022: Scanned Horizontal Pixel Scale (SHPS)**

**Description:**

This optional ASCII field shall specify the horizontal pixel density used for scanning of the original image / impression providing that the SLC field contains a "1" or "2". Otherwise, this shall indicate the horizontal component of the pixel aspect ratio, up to 5 integer digits. This field is used if the transmission pixel scale differs from the original image scale, as listed in Transmitted horizontal pixel scale (THPS). Note that density is directly related to resolution.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.023: Scanned Vertical Pixel Scale (SVPS)**

**Description:**

This optional ASCII field shall specify the horizontal pixel density used for scanning of the original image / impression providing that the SLC field contains a "1" or "2". Otherwise, this shall indicate the vertical component of the pixel aspect ratio, up to 5 integer digits. This field is used if the transmission pixel scale differs from the original image scale, as listed in Transmitted vertical pixel scale (TVPS). Note that density is directly related to resolution. If SLC is 1 or 2 and SHPS is entered, then SVPS shall equal SHPS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.024: Image Quality Score (IQS)**

**Description:**

This optional field shall specify one or more different metrics of image quality score data for the image stored in this record. Each subfield shall contain three information items. They identify a quality score and the algorithm used to create the quality score. This information is useful to enable the recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as necessary.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:ImageQuality

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.024: Image Quality Score - Subfields: Repeating sets of information items (IQS\_0)**

**Description:**

This ASCII field shall specify a quality score data for the iris image stored in this record. Each subfield shall contain three information items. They identify a quality score and the algorithm used to create the quality score. This information is useful to enable the recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as necessary.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-17: Iris Image Data

**17.024\_1: Image Quality Score - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ QVU ≤ 100 or QVU = 254 or 255, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.024\_2: Image Quality Score - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.024\_3: Image Quality Score - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, which may be registered with the IBIA, but it is not required to be registered. It indicates which of the vendor's algorithms was used in the calculation of the quality score. This field contains the ASCII representation of the integer product code and should be within the range 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ QAP ≤ 65535, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.025: Effective Acquisition Spectrum (EAS)**

**Description:**

This optional field indicates the acquisition spectrum used in capturing the iris image. The acquisition spectrum is the effective acquisition spectrum, which is limited by both the lighting spectrum and the spectrum limitations of the acquisition device: it is defined by the overlap of the two spectra. This field contains an alphabetic entry selected from the column "Value" in Table 109 Effective acquisition spectrum codes from ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	9	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	See Table 109 Effective acquisition spectrum codes from ANSI/NIST-ITL update 2015

Code List: LIGHTING SPECTRUM ACQUISITION CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageAcquisitionLightingSpectrum

NIEM Element: biom:AcquisitionLightingSpectrumCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.026: Iris Diameter (IRD)**

**Description:**

This field shall specify the expected iris diameter in pixels. This value may assist the processing algorithm(s) in the automated examination of the image. IRD need not be the measured value of the diameter. It may range in value from 10 to 9999, inclusive.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	4	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ IRD ≤ 9999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisDiameterPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.027: Specified Spectrum Value (SSV)**

**Description:**

This field shall only be present if Field 17.025: Effective acquisition spectrum (EAS) has a value of 'DEFINED'. It is comprised of two information items: Spectrum lower bound and Spectrum upper bound.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.027\_1: Specified Spectrum Value - Spectrum Lower Bound (LOW)**

**Description:**

It is a three or four digit entry indicating the lower frequency bound in nm (rounded to the nearest 10 nm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	500 ≤ LOW, positive integer evenly divisible by 10

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageAcquisitionLightingSpectrum

NIEM Element: biom:AcquisitionLightingSpectrumLowerMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.027\_2: Specified Spectrum Value - Spectrum Upper Bound (HIG)**

**Description:**

It is a three or four digit entry indicating the upper frequency bound in nm (rounded to the nearest 10 nm).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	510 ≤ HIG, positive integer evenly divisible by 10

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageAcquisitionLightingSpectrum

NIEM Element: biom:AcquisitionLightingSpectrumUpperMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.028: Damaged or Missing Eye (DME)**

**Description:**

This optional field shall specify if one or both eyes are unable to provide usable iris images. The eye position is specified in Field 17.003: Eye Label / ELR. This field shall contain a code from Table 110 Missing or damaged eye codes from ANSI/NIST-ITL update 2015. "UC" should be entered if the eye is physically present, but a usable iris image cannot be captured. An example is when the eye is swollen shut due to injury.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	DME = MA or UC

Code List: MISSING AND DAMAGED EYE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageMissingReasonCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.030: Device Monitoring Mode (DMM)**

**Description:**

This field provides information describing the level of human monitoring associated with the biometric sample capture. This field will contain alphabetic values from Table 6 Device monitoring mode from ANSI/NIST-ITL update 2015 to indicate the monitoring mode of the biometric sample capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
7	10	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	See Table 6 Device monitoring mode from ANSI/NIST-ITL update 2015

Code List: CAPTURE DEVICE MONITORING MODE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDeviceMonitoringModeCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.031: Subject Acquisition Profile - IRIS (IAP)**

**Description:**

This optional field lists the IAP level associated with the iris acquisition device. A device used to capture iris images shall be based upon near-infrared wavelength capture, approximately 700 to 900 nm. Some systems may use a portion of this range, which is acceptable. Iris image capture devices typically provide infrared lighting using LEDs to illuminate the iris. The illumination is in a range partly visible to the human eye. Illumination shall be compliant with illumination standard IEC 825-1 and safety specification ISO 60825-1. The illumination wavelengths shall have > 90% of energy within the 700-900 nm band; and > 35 % of energy in the 800-900 nm. band.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	IAP = 20, 30 or 40

Code List: IRIS SUBJECT ACQUISITION PROFILE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageAcquisitionProfileCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.032: Iris Storage Format (ISF)**

**Description:**

This optional field shall indicate the storage format of the iris image. The value shall be a single digit corresponding to the column "ISF code." ISF format code 1 is designated for high resolution outputs. ISF level 2 is the format output in most commercial iris acquisition systems and corresponds to the dimensions of the Video Graphics Array (VGA). Image storage formats 3 and 7 are typically prepared by client software: ISF 3 images are cropped; and ISF 7 images are both cropped and masked. These operations, used in conjunction with the standardized compression schemes, afford reduced record sizes. All of the formats establish geometric specifications. For ISF = 1 and 2, there are minimum margin requirements specified in terms of the estimated iris radius, R (see Table 111). For ISF = 3 and 7, there are exact margin requirements. These requirements support accurate localization of the iris boundaries. In order to be considered acceptable as non-intrusive and to avoid excessive geometric distortion, the minimum distance between the iris capture device's lens and the subject's eye must be at least 100 millimeters. In order to provide an acceptable level of usability and ease of alignment, the camera must allow for some variability in the position of the iris center relative to the camera. This is consistent with ISO/IEC 19794-6 and ISO/IEC 29794-6 specification concerning image margin requirements. The vertical margin shall be > 0.2 times the radius of the iris. The horizontal margin shall be > 0.6 times the radius.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	ISF = 1, 2, 3 or 7

Code List: IRIS STORAGE FORM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageStorageFormatCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.033: Iris Pupil Boundary (IPB)**

**Description:**

This optional field defines the pupillary boundary, between the iris and pupil. A path is a filed containing a set of coordinates, Paths can be defined as a cricle, ellipse, closed path (polygon), or open path. A circle only requires 2 points to define it. An ellipse requires 3 points to define. Open paths (also called contours or polylines) and closed paths (polygons) on an image are comprised of a set of vertices. For each, the order of the vertices shall be in their consecutive order along the length of the path, either clockwise or counterclockwise. (A straight line of only two points may start at either end). A path may not have any sides crossing. No two vertices shall occupy the same position. There may be up to 99 vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageIrisPupilBoundary

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.033\_1: Boundary Code (BYC)**

**Description:**

Defines the shape of a boundary of a feature within an image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	BYC = C, E or P

Code List: BOUNDARY DEFINITION CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisPupilBoundary

NIEM Element: biom:IrisBoundaryShapeCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-17: Iris Image Data

**17.033\_2: Iris Pupil Boundary - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	2 ≤ NOP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisPupilBoundary

NIEM Element: biom:ImageFeatureVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.033\_3: Iris Pupil Boundary - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ HPO < HLL; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisPupilBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.033\_4: Iris Pupil Boundary - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ VPO < VLL, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisPupilBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.034: Iris Sclera Boundary (ISB)**

**Description:**

This optional field defines the limbic boundary, between the iris and sclera.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageIrisScleraBoundary

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.034\_1: Iris Sclera Boundary - Boundary Code (BYC)**

**Description:**

Defines the shape of a boundary of a feature within an image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	BYC = C, E or P

Code List: BOUNDARY DEFINITION CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisScleraBoundary

NIEM Element: biom:IrisBoundaryShapeCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.034\_2: Iris Sclera Boundary - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	2 ≤ NOP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisScleraBoundary

NIEM Element: biom:ImageFeatureVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.034\_3: Iris Sclera Boundary - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	$0 \leq \text{HPO} < \text{HLL}$ , positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisScleraBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.034\_4: Iris Sclera Boundary - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	$0 \leq \text{VPO} < \text{VLL}$ , positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisScleraBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.035: Upper Eyelid Boundary (UEB)**

**Description:**

This optional field defines the boundary between the upper eyelid and the eye. This is an open path.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageIrisUpperEyelidBoundary

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.035\_1: Upper Eyelid Boundary - Boundary Code (BYC)**

**Description:**

Defines the shape of a boundary of a feature within an image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	BYC = P

Code List: BOUNDARY DEFINITION CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisUpperEyelidBoundary

NIEM Element: biom:IrisBoundaryShapeCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.035\_2: Upper Eyelid Boundary - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	3 ≤ NOP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisUpperEyelidBoundary

NIEM Element: biom:ImageFeatureVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.035\_3: Upper Eyelid Boundary - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ HPO < HLL, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisUpperEyelidBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.035\_4: Upper Eyelid Boundary - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	$0 \leq VPO < VLL$ , positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisUpperEyelidBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.036: Lower Eyelid Boundary (LEB)**

**Description:**

This optional field defines the boundary between the lower eyelid and the eye. This is an open path.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageIrisLowerEyelidBoundary

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.036\_1: Lower Eyelid Boundary - Boundary Code (BYC)**

**Description:**

Defines the shape of a boundary of a feature within an image.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	BYC = P

Code List: BOUNDARY DEFINITION CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisLowerEyelidBoundary

NIEM Element: biom:IrisBoundaryShapeCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.036\_2: Lower Eyelid Boundary - Number of Points (NOP)**

**Description:**

Specifies the number of vertices

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	3 ≤ NOP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisLowerEyelidBoundary

NIEM Element: biom:ImageFeatureVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-17: Iris Image Data

**17.036\_3: Lower Eyelid Boundary - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	$0 \leq \text{HPO} < \text{HLL}$ , positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisLowerEyelidBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.036\_4: Lower Eyelid Boundary - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	2	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	$0 \leq \text{VPO} < \text{VLL}$ , positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageIrisLowerEyelidBoundary/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.037: Non-eyelid Occlusions - Non-eyelid Occlusions (NEO)**

**Description:**

This optional field defines the outline and contents of any non-eyelid occlusions that partially or totally blocks the image of the iris. It is a polygon. Each point on the polygon is represented by a pair of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageOcclusion

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.037\_0: Non-eyelid Occlusions - Subfields: Repeating sets of information items information items (NEO\_0)**

**Description:**

This optional field defines the outline and contents of any non-eyelid occlusions that partially or totally blocks the image of the iris. It is a contour or a polygon.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.037\_1: Non-eyelid Occlusions - Occlusion Opacity (OCY)**

**Description:**

The first information item contains the alphabetic code from Table 32: Occlusion opacity from ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	OCY = T, I, L or S

Code List: OCCLUSION OPACITY CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageOcclusion

NIEM Element: biom:IrisImageOcclusionOpacityCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.037\_2: Non-eyelid Occlusions - Occlusion Type (OCT)**

**Description:**

The second information item contains the alphabetic code from Table 33: Occlusion type from ANSI/NIST-ITL update 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	OCT = L, S, C, R or O

Code List: OCCLUSIONS CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageOcclusion

NIEM Element: biom:IrisImageOcclusionCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.037\_3: Non-eyelid Occlusions - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	3 ≤ NOP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageOcclusion

NIEM Element: biom:ImageFeatureVertexQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.037\_4: Non-eyelid Occlusions - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ HPO < HLL, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageOcclusion/biom:ImageFeatureVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.037\_5: Non-eyelid Occlusions - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin. HPO and VPO information items are repeated as pairs, in order by point following the path – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	3	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ VPO < VLL, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:IrisImageOcclusion/biom:ImageFeatureVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.040: Range (RAN)**

**Description:**

This optional field contains the estimated distance from the lens of the camera to the iris. It shall be measured in centimeters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	7	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageRangeMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.041: Frontal Gaze (GAZ)**

**Description:**

This optional field describes the metric that estimates the degree of eye(s) sight-angle relative to the camera. The angle shall be reported in degrees and defined as between: The optical axis of the eye, and a line connecting the optical center of the eye and the optical center of the camera. This measure is inclusive of both head angular orientation and eye-gaze angle relative to the head. The inclusive approach for gaze direction is not intended to be representative of the possible difficulty with iris segmentation due to non-frontal head orientation. Hence, two images with the same frontal gaze, but significantly different frontal head orientation may perform differently with different segmentation and matching algorithms. Note that iris image recognition systems typically rely upon having a small gaze angle in the image. While not prohibited in this standard, it is strongly discouraged that gaze angles greater than 15 degrees be used for enrollment or matching.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	0 ≤ GAZ ≤ 90, integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail

NIEM Element: biom:IrisImageGazeAngleMeasure

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.902: Annotated Information (ANN)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.902\_0: Annotated Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**17.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-17: Iris Image Data

**17.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-9 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field 17.004: Source agency / SRC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:IrisImageDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.994: External File Reference (EFR)**

**Description:**

This conditional field shall be used to enter the URL/URI or other unique reference to a storage location for all digital representations, if the data is not contained in Field 17.999: Iris image data / DATA. If this field is used, Field 17.999 shall not be set. However, one of the two fields shall be present in all instances of this record type. It is highly recommended that the user state the format of the external file in Field 17.021: Comment / COM. Field 17.994 has been added to allow an iris image to be in a location that can be remotely accessed. Field 17.999 may still be used to transmit the image in the record. These two fields are mutually exclusive. Only one may appear in the record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	1	1
Character Types	Special Characters	Format	Constraints
U		n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: New - Active

XML Parent: itl:PackageIrisImageRecord

NIEM Element: biom:SourceExternalFileReferenceText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**17.995: Associated Context (ASC)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 17.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.995\_0: Associated Context - Subfields: Repeating sets of information items (ASC\_0)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 17.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**17.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item for the associated context number / ACN for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (ACN). The value of the ACN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ ACN ≤ 255, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The first information item in Field xx.995 is optional. It is the associated segment position / ASP. It contains the index to a particular set of segmentation coordinates of the associated context data. This same segmentation index value appears in Record Type-21 as the associated segment position / ASP in Field 21.016: Segments / SEG. There may be up to 99 segments listed in Field 21.016, but only the relevant segment is contained in Field xx.995.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ASP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.996: Hash (HAS)**

**Description:**

This optional field shall contain the hash value of the data in Field 17.999: Iris image data / DATA of this record, calculated using SHA-256.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord

NIEM Element: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.997: Source Representation (SOR)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 17.999: Iris image data / DATA was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.997\_0: Source Representation - Subfields: Repeating sets of information items (SOR\_0)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 13.999: Latent friction ridge image (DATA) was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.997\_1: Source Representation - Source Representation Number (SRN)**

**Description:**

This is the first information item and is mandatory for each Field xx.997. It contains an index to a particular instance of a Type-20 record in the transaction. This same index value appears in the appropriate instance of Record Type-20 as Field 20.021: Source representation number (SRN). The value of the SRN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SRN ≤ 255, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:SourceInformation

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.997\_2: Source Representation - Reference Segment Position (RSP)**

**Description:**

The first information item is the reference segment position (RSP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RSP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord/biom:SourceInformation

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the iris sample was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a, BiometricCaptureType	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
dependent on encoding	dependent on encoding	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign	n/a	-90 ≤ LTD ≤ 90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-17: Iris Image Data

**17.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign, Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 ≤ ELE ≤ 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**17.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html>.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-17: Iris Image Data

**17.999: Iris Image Data (DATA)**

**Description:**

This field contains the iris image. See Section 7.2 of ANSI/NIST ITL update 2015 for details. If Field 17.994: External file reference / EFR is present in this record, then this field shall not appear. Neither this field or Field 17.994: External file reference / EFR shall be present in this record when Field 17.028: Damaged or missing eye / DME is in this record (indicating an eye is missing or is unable to provide a usable iris image). Some domains and application profiles may require a field with a 'substitute image' such as the words 'Missing Eye'.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
B	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageIrisImageRecord

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: dod-ebts:ImageCaptureType

NIEM Element: od-ebts:RecordCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤IDC ≤99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.003: DNA Laboratory Setting (DLS)**

**Description:**

This field is mandatory. The first information item is mandatory. The remaining information items are optional for all unit types.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample

NIEM Element: biom:DNALaboratory

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.003\_1: DNA Laboratory Setting - Unit Type (UTY)**

**Description:**

The first information item unit type / UTY is mandatory and contains a numeric value from Table 113 DNA laboratory setting (DLS) from ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤UTY≤4; integer

Code List: DNA LABORATORY SETTING UNIT TYPE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNALaboratory

NIEM Element: biom:DNALaboratoryUnitCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.003\_2: DNA Laboratory Setting - Lab Type (LTY)**

**Description:**

The second information item is the lab type / LTY. It is mandatory if the value for UTY is 1 or 2. It is not entered otherwise. When present, this information item contains a single character describing the laboratory that processed the DNA: G = Government, I = Industry, O = Other laboratory, U = Unknown.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	LTY = G, I, O or U

Code List: DNA LABORATORY SETTING LAB TYPE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNALaboratory

NIEM Element: biom:DNALaboratoryCategoryCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.003\_3: DNA Laboratory Setting - Accreditation Information (ACC)**

**Description:**

The third information item is the accreditation information / ACC. It is mandatory if the value for UTY is 1 or 2. It shall not be entered otherwise. When present, this information item shall contain a minimum of one numeric character if the value is 0 or a minimum of two characters (one numeric followed immediately by one alpha character if the lab is accredited). If the laboratory has an unknown accreditation status, three numeric characters '255' are entered. The values in this information item shall be separated individually by commas between accreditation and scope pairings. More than one accreditation and scope of accreditation is permitted. Allowable numeric values are: 0 = No Accreditation, 1 = ISO Accreditation, 2 = GLP, Accreditation, 3 = AABB Accreditation, 4 = ISO/ILAC Guide 19 Accreditation, 5 = ASCLD Lab Accreditation, 6 = Other 255 = Unknown. The scope of accreditation is incorporated as an alphabetic code immediately following the accreditation body / source numeric value. The scope of accreditation is for what type of DNA technology that the laboratory is accredited. These are: N = Nuclear, M = Mitochondrial, D = Database O = Other.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	35	0	1
Character Types	Special Characters	Format	Constraints
ANS	Comma	n/a	Numeric (0,1,2,3,4,5,6 or 255). It may be followed by an alpha string (N, M, D and/or O). That may be followed by up to 5 more such strings, each separated by a comma. The entire string is treated as a single information item.

Code List: DNA LABORATORY SETTING ACCREDITATION STATUS CODE and DNA LABORATORY ACCREDITATION SCOPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNALaboratory

NIEM Element: biom:DNALaboratoryAccreditation

XML Min/Max: 0 / 6

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.003\_4: DNA Laboratory Setting - Name of the Organization (NOO)**

**Description:**

The fourth information item is the name of the organization / NOO that originally processed the DNA data. This may be different from the entry in Field 18.004: Source Agency / SRC. This is an optional information item. It is entered in Unicode characters and is unlimited in length.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNALaboratory

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.003\_5: DNA Laboratory Setting - Point of Contact (POC)**

**Description:**

This information item is the point of contact / POC who composed the DNA record metadata. This is an optional information item that could include the name, telephone number and e-mail address of the person responsible for this record submission. This information item may be up to 200 Unicode characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNALaboratory

NIEM Element: nc:OrganizationPrimaryContactInformation/nc:ContactInformationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.003\_6: DNA Laboratory Setting - Code of Sending Country (CSC)**

**Description:**

The sixth information item is optional. It is the ISO-3166-1 code of the sending country / CSC. This is the code of where the DNA was processed, not necessarily the nation of the agency entered in Field 18.004: Source agency / SRC. All three formats specified in ISO-3166-1 are allowed (Alpha2, Alpha3 and Numeric). A country code is either 2 or 3 characters long. CSC defaults to ISO-3166-1 coding. If GENC used, then the version of that alternate code is entered in Field 1.018: Geographic name set / GNS, which applies to ALL country codes in all records within the transaction. The DoD EBTS 4.0 default for this field is the GENC three character alpha codelist (genc:CountryAlpha3CodeType).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	If Field 1.018: Geographic name set / GNS is present, then value is from the alternate GENC set specified in that field. Otherwise, the value is from ISO-3166-1.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNALaboratory

NIEM Element: biom:DNALaboratoryProcessingCountry

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.003\_7: DNA Laboratory Setting - International Organization Name (ION)**

**Description:**

The seventh information item is optional. It is the international organization name / ION of the submitting organization. This is completed if the DNA was processed by an organization that is not affiliated with a country (such as a multinational organization). This optional information item is the name/acronym of an organization, and may be up to 100 Unicode characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNALaboratory

NIEM Element: biom:DNALaboratoryInternationalOrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.004: Source Agency (SRC)**

**Description:**

This mandatory field is the identifier of the agency that actually created the record and supplied the information contained in it.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.005: Number of Analysis Flag (NAL)**

**Description:**

This mandatory field indicates whether the DNA record contains multiple data analyses or a single data analysis. Possible entries are: 0="Multiple" or 1="Single".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	NAL = 0 or 1

Code List: DNA LABORATORY NUMBER OF ANALYSES CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAAnalysisQuantityCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.006: Sample Donor Information (SDI)**

**Description:**

This field is mandatory. It indicates if the DNA information contained in the record is from the subject of the transaction or from another person (the subject of the record), that is being sent to assist in establishing or verifying the identity of the subject of the transaction. Each subject of a record may have a distinct Type-2 record contained in the transaction. If that is the case, it is highly recommended that Field 18.992: Type-2 Record cross reference / T2C be used to link the Type-18 record to the appropriate Type-2 record. Note that multiple Type-18 records may be included in a single transaction; only one record may have a value of 0 for the first information item.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample

NIEM Element: biom:DNADonor

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.006\_1: Sample Donor Information - DNA Sample Donor (DSD)**

**Description:**

The allowed numeric values for the first mandatory information item DNA sample donor / DSD are: 0 = Subject of the record is also the subject of the transaction, 1 = Claimed, purported or validated relative (subject of the record is known to be a different person than the subject of the transaction), 2 = Unknown source (subject of the record may be different but need not be different than the subject of the transaction – such as when a dismembered body part's DNA is to be compared against the DNA of the body part already established to be associated with subject of the transaction).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	DSD = 0, 1 or 2

Code List: DNA SAMPLE DONOR CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample/biom:DNADonor

NIEM Element: biom:DNADonorCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.006\_2: Sample Donor Information - Gender ID (GID)**

**Description:**

The second information item is the gender ID / GID. This is an optional single character identifier of "M" or "F" or "U". "U" indicates unknown. GID may be set based on self-assignment by the specimen donor. The GID may not match the results from the Amelogenin or for other valid cases.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	GID = M, F or U

Code List: DNA SAMPLE DONOR GENDER

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNADonor

NIEM Element: nc:PersonSexText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.006\_3: Sample Donor Information - Date of Last Contact (DLC)**

**Description:**

The third information item, date of last contact / DLC is an optional date field. The local date is recorded as YYYYMMDD. Note that this may be a different date than the corresponding GMT, due to time zone differences.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
Encoding Specific	Colon, Period	YYYYMMDDhh:mm:ss.sss	N/A

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNADonor

NIEM Element: biom:DNADonorLastContactDate/nc:Date

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.006\_4: Sample Donor Information - Donor Date of Birth (DOB)**

**Description:**

The fourth information item, date of birth / DOB, is an optional date field. The local date is recorded as YYYYMMDD. Note that this may be a different date than the corresponding GMT, due to time zone differences.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
Encoding Specific	Colon, Period	YYYYMMDDhh:mm:ss.sss	N/A

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNADonor

NIEM Element: nc:PersonBirthDate/nc:Date

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.006\_5: Sample Donor Information - Ethnic Group (EGP)**

**Description:**

The fifth information item is the ethnic group / EGP. It is an optional string of 50 Unicode characters used to describe the ethnic group to which the subject belongs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNADonor

NIEM Element: nc:PersonEthnicityText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.006\_6: Sample Donor Information - Dental Records Available (DRA)**

**Description:**

The sixth information item is optional and indicates if dental records are available for the subject (dental records available / DRA). This information item shall be entered only if DSD = 0. Allowed numeric values are: 0 = No, 1 = Yes 2 = Unknown.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	DRA = 0, 1 or 2; non-negative integer

Code List: DENTAL RECORD AVAILABLE INDICATION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNADonor

NIEM Element: biom:DNADonorDentalRecordsAvailableCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.006\_7: Sample Donor Information - Sample Collection Location Description (LLC)**

**Description:**

The seventh optional information item is the sample collection location description / LLC. It is an optional string of up to 4000 Unicode characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4000	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNADonor

NIEM Element: biom:DNADonorCollectionLocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.006\_8: Sample Donor Information - Sample Donor Status (SDS)**

**Description:**

The eighth optional information item is the sample donor status / SDS. This information item will include whether or not the sample donor is deceased, missing or unknown. Normally, this item would only be used for the sample associated with the subject of the transaction (SDI = 0), but it could be possible to use it in other cases, such as a hair sample from a deceased relative. It could also be 'unknown' for the purported relative's status, but DNA samples were available for that individual (such as blood sample previously collected). Allowed numeric values are: 0 = Deceased, 1 = Missing Person 2 = Unknown.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SDS = 0, 1 or 2; non-negative integer

Code List: DNA SAMPLE DONOR STATUS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNADonor

NIEM Element: biom:DNADonorStatusCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.007: Claimed Or Purported Relationship (COPR)**

**Description:**

This field is mandatory if the value for [DNA Sample Donor / DSD] is equal to 1 [Claimed, purported or validated relative]. It is a numeric value selected from the "Relationship code" column of Table 114 Relationship table in ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ COPR ≤ 7; positive integer

Code List: RELATIONSHIP CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAClaimedRelationshipCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.008: Validated Relationship (VRS)**

**Description:**

This field is optional and is a numeric value selected from the "Relationship code" column of Table 114 Relationship table in ANSI/NIST-ITL Update: 2015. This information item is completed based upon a comparison of the subject's DNA with the DNA of the person with whom the relationship is claimed or purported. It is only filled in if DSD = 1. This information item is completed based upon a comparison of the subject's DNA with the DNA of the person with whom the relationship is claimed or purported. It is only filled in if [Donor Status Description] DSD = 1 [Claimed or Purported Relationship].

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1

Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ VRS ≤ 7; positive integer

Code List: RELATIONSHIP CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAValidatedRelationshipCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.009: Pedigree Information (PED)**

**Description:**

This optional field contains information and structure associated with the pedigree.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1

Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAPedigree

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.009\_1: Pedigree Information - Pedigree ID (PID)**

**Description:**

The first information item is the pedigree ID / PID. It is a character string of up to 24 Unicode characters. It is mandatory if this field is used and it indicates the identity of the pedigree determined and held at the laboratory that originates the pedigree.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	24	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAPedigree

NIEM Element: biom:DNAPedigreeID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.009\_2: Pedigree Information - Pedigree Member ID (PMI)**

**Description:**

The second information item is the pedigree member ID / PMI. It is a unique reference within the pedigree. It is mandatory if this field is used. This information item refers to the subject of the transaction. It is a character string of up to 6 Unicode characters. This information item shall also provide the ability to link pedigree information.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAPedigree

NIEM Element: biom:DNAPedigreeMemberIndexNumeric

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.009\_3: Pedigree Information - Pedigree Member Status (PMS)**

**Description:**

The third information item is the pedigree member status / PMS. It is mandatory if this field is used. It is a single character containing one of the following values: [This information item refers to DNA associated with this record] : K = Known or U = Unknown.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	PMS = K or U

Code List: PEDIGREE MEMBER STATUS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAPedigree

NIEM Element: biom:DNAPedigreeMemberStatusCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.009\_4: Pedigree Information - Sample Identifier (SID)**

**Description:**

The fourth information item is the DNA sample identifier / SID for the transaction. It is not an identifier within the pedigree chain, unlike the following two identifiers or the PID. It is a character string of 24 characters or less. This information item relates the sample in this record to the pedigree.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	24	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAPedigree

NIEM Element: biom:DNAPedigreeSampleID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.009\_5: Pedigree Information - Father Identifier (FID)**

**Description:**

The fifth information item is the father identifier / FID. It is optional and is a numeric value of 3 digits or less that is unique within the pedigree. This information item is the father identified as related to the sample indicated in the PMI item.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAPedigree

NIEM Element: biom:DNAPedigreeFatherIndexNumeric

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.009\_6: Pedigree Information - Mother Identifier (MID)**

**Description:**

The sixth information item is the mother identifier / MID. It is optional and is a numeric value of 3 digits or less that is unique within the pedigree. This information item is the mother identified as related to the sample indicated in the PMI item.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAPedigree

NIEM Element: biom:DNAPedigreeMotherIndexNumeric

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.009\_7: Pedigree Information - Pedigree Comment (PCM)**

**Description:**

The seventh optional information item is the pedigree comment / PCM. It is up to 2000 Unicode characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2000	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAPedigree

NIEM Element: biom:DNAPedigreeCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.01: Sample Type (STY)**

**Description:**

This mandatory field contains two information items. The first represents the origination cell type from where the sample was collected (sample cellular type / SCT). The second information item is the sample origin / SMO.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNASampleOrigin

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.010\_1: Sample Type - Sample Cellular Type (SCT)**

**Description:**

This information item represents the origination cell type from where the sample was collected (sample cellular type / SCT). It is mandatory and shall contain a numeric value selected from the 'Cellular code' column of Table 115 of ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤STY ≤11; positive integer

Code List: DNA SAMPLE CELLULAR CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASampleOrigin

NIEM Element: biom:DNACellularCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.010\_2: Sample Type - Sample Origin (SMO)**

**Description:**

The second information item is the sample origin / SMO. It is an optional item of a string of 2 characters describing where the sample was obtained. It contains one of the following values: NS = Not Specified, WB = Whole Body or BP = Body Part.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	2	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	SMO = NS, WB or BP

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASampleOrigin

NIEM Element: biom:DNASampleOriginCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.011: Sample Typing Information (STI)**

**Description:**

This mandatory field represents the technology utilized to type the DNA sample. A repeating subfield with the following information item shall comprise this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	n/a

Code List: DNA SAMPLE TYPING AVAILABILITY CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNATypingTechnologyCategoryCode

XML Min/Max: 1 / 5

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.011\_0: Sample Typing Information - Subfields: Repeating sets of information items (STI\_0)**

**Description:**

Each subfield shall contain a number from the following list: 0 = Nuclear (indicates presence of Field 18.016: Autosomal STR, X-STR and Y-STR / STR), 1 = mtDNA (indicates presence of Field 18.017: Mitochondrial DNA data / DMD), 2 = electropherogram data (indicates presence of Field 18.019: Electropherogram description / EPD), 3 = electropherogram ladder (indicates presence of Field 18.023: Electropherogram ladder / EPL) or 4 = user-defined profile data (indicates the presence of Field 18.018: DNA user-defined profile data / UDP).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	5
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤STI ≤4; non-negative integer

Code List: DNA SAMPLE TYPING AVAILABILITY CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.012: Sample Collection Method (SCM)**

**Description:**

This field contains a description of the method used to collect the DNA sample. It is a character string up to 255 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample

NIEM Element: biom:DNASampleCollectionMethodText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.013: Sample Collection Date (SCD)**

**Description:**

This mandatory field contains the date and time that the sample was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
N	None	YYYYMMDDhhmmssZ	Description points to 7.7.2.2 YYYYMMDDhhmmssZ, where the Z is indicates the zone description of 0 hours format. Consider naming as "Sample Collection DateTime"

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample/biom:BiometricCapture

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.014: Profile Storage Date (PSD)**

**Description:**

This mandatory field contains date and time the sample was collected.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
N	None	YYYYMMDDhhmmssZ	Description points to 7.7.2.2 YYYYMMDDhhmmssZ, where the Z is indicates the zone description of 0 hours format. Consider naming as "PROFILE STORAGE DATETIME".

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample

NIEM Element: biom:DNAProfileStorageDate/nc:Date

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.015: DNA Profile Data (DPD)**

**Description:**

This is a mandatory field. It contains information and structure associated with the DNA profile data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample

NIEM Element: biom:DNAProfile

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.015\_1: DNA Profile Data - Profile Type (PTP)**

**Description:**

The first information item is mandatory. It is the profile type / PTP. It is a numerical value. Allowable values are 0 = Person or 1 = Stain.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	PTP = 0 or 1

Code List: DNA PROFILE TYPE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAProfile

NIEM Element: biom:DNAProfileCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.015\_2: DNA Profile Data - Result (RES)**

**Description:**

The second information item is optional and is the result / RES. It is entered with a numeric value selected from Table 116 DNA Result Codes from ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤RES ≤10 integer

Code List: DNA PROFILE RESULT CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAProfile

NIEM Element: biom:DNAProfileResultCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.015\_3: DNA Profile Data - Profile ID (PRF)**

**Description:**

The third information item is mandatory and is the profile ID / PRF. It is a character string with a unique party identification. This information item is used to uniquely identify the profile or sample for which the transaction is based. It is a maximum of 64 alphanumeric characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAProfile

NIEM Element: biom:DNAProfileID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.015\_4: DNA Profile Data - Supplemental Message (SUP)**

**Description:**

The optional fourth information item is a supplemental message / SUP. This information item states if this transaction is a supplemental message to a previous transmission. It is an alphanumeric string containing up to 100 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAProfile

NIEM Element: biom:DNAProfileSupplementalText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.015\_5: DNA Profile Data - DNA Profile Comment (DPC)**

**Description:**

The optional fifth information item is a DNA profile comment / DPC. It is up to 100 Unicode characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	100	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAProfile

NIEM Element: biom:DNAProfileCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016: Autosomal STR, X-STR and Y-STR Profile (STR)**

**Description:**

This optional field may be comprised of as many subfields as there are combinations of data type and locus type reported. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with the value 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNASTRProfile

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.016\_0: Autosomal STR, X-STR and Y-STR Profile (STR\_0)**

**Description:**

This field may be comprised of as many subfields as there are combinations of data type and locus type reported. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with the value 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_1: Autosomal STR, X-STR and Y-STR Profile - DNA STR Type (DST)**

**Description:**

The first information item is mandatory. It is the DNA STR type / DST. It has one of the following numeric values: 0 = Autosomal STR Profile, 1 = X-STR Profile or 2 = Y-STR Profile.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	DST = 0, 1 or 2

Code List: DNA STR TYPE CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNASTRProfileCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.016\_2: Autosomal STR, X-STR and Y-STR Profile - DNA Locus Reference (DLR)**

**Description:**

The second information item is mandatory. It is the DNA locus reference / DLR. The current valid loci for Autosomal, Y and X-STRs are maintained by NIST and are available at [http://www.nist.gov/itl/iad/ig/ansi\\_standard.cfm](http://www.nist.gov/itl/iad/ig/ansi_standard.cfm). This information item is an integer entry with up to 3 characters per locus.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤DLR ≤200; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNALocusReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_3: Autosomal STR, X-STR and Y-STR Profile - Allele Indicator (ALL)**

**Description:**

The third information item, allele indicator / ALL, is mandatory. It is a numeric entry containing a zero if no allele is found. Otherwise it is filled with a 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	ALL = 0 or 1

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNAAlleleIndicator

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.016\_4: Autosomal STR, X-STR and Y-STR Profile - Locus Analysis Indicator (LAI)**

**Description:**

The fourth information item is mandatory. It is the locus analysis indicator / LAI. It is a numeric entry, containing a zero if not analyzed. Otherwise it contains a 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	LAI = 0 or 1

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNALocusAnalysisIndicator

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_5: Autosomal STR, X-STR and Y-STR Profile - Precise Call Determination (PCDT)**

**Description:**

The fifth information item is mandatory. It is the precise call determination / PCDT. It is a numeric entry containing a zero if the precise call cannot be determined, due to an uncertainty in the call. Otherwise it contains a 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	PCDT = 0 or 1

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNAPreciseCallIndicator

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.016\_6: Autosomal STR, X-STR and Y-STR Profile - Allele Call 1 (AL1)**

**Description:**

The sixth information item shall have a value if ALL is 1. It shall be empty if ALL is 0. It is the allele call 1 / AL1. This is the allele call for the locus reference as indicated by the value of DLR. It contains up to 4 characters, such as "11" or "23.3".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
NS	Period	n/a	integer > 0; or real number with one digit to right of decimal

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNAAlleleCall1Text

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_7: Autosomal STR, X-STR and Y-STR Profile - Allele Call 2 (AL2)**

**Description:**

The seventh information item is conditional upon the value of ALL being 1. It is the allele call 2 / AL2. This is the allele call for the locus reference as indicated by the value of DLR. It contains up to 4 characters, such as "11" or "23.3". It may only appear if AL1 is used; since there are cases with only one allele in a call, it is possible that AL1 will have a value in this field and AL2 will not have a value. It shall be empty if AL1 is empty.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
NS	Period	n/a	integer > 0; or real number with one digit to right of decimal

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNAAlleleCall2Text

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.016\_8: Autosomal STR, X-STR and Y-STR Profile - Allele Call 3 (AL3)**

**Description:**

The eighth information item is optional but shall not appear unless ALL=1. It is the allele call 3 / AL3. This is the allele call for the locus reference DLR. It contains up to 4 characters, such as "11" or "23.3". This is not used for mixtures, but is for the rare case of a tri-allele. The information item allele call 3 / AL3 shall only appear if information items AL1 and AL2 are present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	0	1
Character Types	Special Characters	Format	Constraints
NS	Period	n/a	integer > 0; or real number with one digit to right of decimal

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNAAlleleCall3Text

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_9: Autosomal STR, X-STR and Y-STR Profile - Batch ID (BID)**

**Description:**

The ninth information item is the batch ID / BID. This optional information item shall contain an identifier for the batch to which a locus belongs. This may be referred to as the gel or plate identifier. A specimen may have loci from multiple batches. The BID shall be up to 32 Unicode characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	32	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNABatchID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.016\_10: Autosomal STR, X-STR and Y-STR Profile - Electropherogram Cross Reference (ECR)**

**Description:**

The tenth information item is optional. It is called the electropherogram cross reference / ECR and has the same value as the electropherogram image reference / EIR from the appropriate subfield of Field 18.019: Electropherogram description / EPD that is associated with the information in this field and particular subfield instance (if there is such an electropherogram present in this instance of the record).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNAElectropherogramID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_11: Autosomal STR, X-STR and Y-STR Profile - Ladder Cross Reference (LCR)**

**Description:**

The eleventh information item is optional. It is called the ladder cross reference / LCR and has the same value as the ladder image reference / LIR from the appropriate subfield of Field 18.023: Electropherogram ladder / EPL that is associated with the in and particular subfield instance (if there is such a ladder present in this instance of the record).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile

NIEM Element: biom:DNAElectropherogramLadderID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.016\_12: Autosomal STR, X-STR and Y-STR Profile - Kit ID (KID)**

**Description:**

The twelfth information item is the kit ID / KID. This mandatory information item contains a number that references the kit used to process the DNA described in this record. The numeric values for specific kits are contained in the table of kits maintained by NIST at: [http://www.nist.gov/itl/iad/ig/ansi\\_standard.cfm](http://www.nist.gov/itl/iad/ig/ansi_standard.cfm). The values to be entered are those in the "Reference Number" column. The KID value shall be represented as 0 for a non-listed kit. If a non-listed kit is used (KID = 0), then the following three information items are mandatory.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤KID ≤999; integer

Code List: DNA KIT ID CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile/biom:DNAKit

NIEM Element: biom:DNAKitReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_13: Autosomal STR, X-STR and Y-STR Profile - Kit Name (KNM)**

**Description:**

The thirteenth information item is the kit name / KNM. This is an alphanumeric value of up to 32 Unicode characters. KNM shall be entered if KID = 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	32	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNASTRProfile/biom:DNAKit

NIEM Element: biom:DNAKitName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.016\_14: Autosomal STR, X-STR and Y-STR Profile - Manufacturer (KMF)**

**Description:**

The fourteenth information item is the manufacturer / KMF. It is an alphanumeric value of up to 32 Unicode characters. KMF shall be entered if KID = 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	32	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample/biom:DNASTRProfile/biom:DNAKit

NIEM Element: biom:DNAKitManufacturerName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.016\_15: Autosomal STR, X-STR and Y-STR Profile - Description of the Kit (with part or catalog number) (KDS)**

**Description:**

The fifteenth information item is the description of the kit (with part or catalog number) / KDS. This is up to 128 Unicode characters. KDS shall be entered if KID = 0.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	128	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample/biom:DNASTRProfile/biom:DNAKit

NIEM Element: biom:DNAKitDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.017: Mitochondrial DNA Data (DMD)**

**Description:**

To accommodate the differences in how mtDNA types are derived (differences from reference), the interpretation issue is avoided in this standard by dividing the control region into 2 regions (even though HV3 exists) to ensure any insertions/deletions/C-stretches are included. This method enables any receiver of the data to use it in a way to which they are accustomed (either using the full sequence or interpreting the full sequence according to their own methodology). The resultant data use would then be fully consistent with the receiver's database and enable processing. This is an optional field, but if it is entered, all information items are mandatory. This field is only present if Field 18.011: Sample typing information / STI has a subfield with the value 1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAMitochondrialData

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.017\_1: Mitochondrial DNA Data - Mito Control Region 1 (MT1)**

**Description:**

This information item is the mito control region 1 / MT1. It is defined as inclusive of HV1, starting at 16024 and ending at 16569. The string may have up to 400 insertions. This string length allows for insertions in HV1. Each character is an IUPAC value from Table 117 from ANSI/NIST-ITL Update: 2015 or a sequence value: A, G, C or T.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	946	1	1
Character Types	Special Characters	Format	Constraints
AS	Comma	n/a	character string from Table 117 IUPAC DNA codes from ANSI/NIST-ITL Update: 2015 or a sequence value: A, G, C or T

Code List: IUPAC DNA CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoControlRegion1Text

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.017\_2: Mitochondrial DNA Data - Mito Control Region 2 (MT2)**

**Description:**

The second information item is the mito control region 2 / MT2 is defined as inclusive of HV2 and HV3, starting at 1 and ending at 576. Up to 400 insertions may be specified. Each character is an IUPAC value from ANSI/NIST-ITL Update: 2015 or a sequence value: A, G, C or T.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	977	1	1
Character Types	Special Characters	Format	Constraints
AS	Comma	n/a	character string from Table 117 IUPAC DNA codes from ANSI/NIST-ITL Update: 2015 or a sequence value: A, G, C or T

Code List: IUPAC DNA CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoControlRegion2Text

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.017\_3: Mitochondrial DNA Data - Base Composition Starting Point (BSP)**

**Description:**

The third information item is the base composition starting point / BSP. This entry is numeric, up to 5 digits. Starting point is the base position (rCRS) where the primer pair starts interrogating the mitochondrial DNA.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoBaseStartNumeric

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.017\_4: Mitochondrial DNA Data - Base Composition Ending Point (BEP)**

**Description:**

The fourth information item is the base composition ending point / BEP. This entry is numeric, up to 5 digits. Ending point is the base position (rCRS) where the primer pair stops interrogating the mitochondrial DNA.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer; BEP > BSP

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoBaseEndNumeric

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.017\_5: Mitochondrial DNA Data - Base Composition A Length (BCA)**

**Description:**

The fifth information item is the base composition A length / BCA. It is a numerical value of up to two digits. A represents the number of adenines in the region being amplified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoBaseAdenineQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.017\_6: Mitochondrial DNA Data - Base Composition G Length (BCG)**

**Description:**

The sixth information item is the base composition G length / BCG. It is a numerical value of up to two digits. G represents the number of guanines in the region being amplified

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoBaseGuanineQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.017\_7: Mitochondrial DNA Data - Base Composition C Length (BCC)**

**Description:**

The seventh information item is the base composition C length / BCC. It is a numerical value of up to two digits. C represents the number of cytosines in the region being amplified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoBaseCytosineQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.017\_8: Mitochondrial DNA Data - Base Composition T Length (BCT)**

**Description:**

The eighth information item is the base composition T length / BCT. It is a numerical value of up to two digits. T represents the number of thymines in the region being amplified.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAMitochondrialData

NIEM Element: biom:DNAMitoBaseThymineQuantity

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.018: DNA User-Defined Profile (UDP)**

**Description:**

This optional field is user-defined, when data other than Autosomal STR, X-STR, Y-STR, mtDNA or an electropherogram is included as part of the transaction. The sender shall provide the receiver with a description of the field contents. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with the value 4.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAUserDefinedProfileAbstract

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.018\_0: DNA User-Defined Profile - Subfields: Repeating sets of information items (UDP\_0)**

**Description:**

This field is user-defined, when data other than Autosomal STR, X-STR, Y-STR, mtDNA or an electropherogram is included as part of the transaction. The sender shall provide the receiver with a description of the field contents. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with the value 4.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.019: Electropherogram Description (EPD)**

**Description:**

This optional field contains a subfield for each electropherogram. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with value 2.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAElectropherogram

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.019\_0: Electropherogram Description - Subfields: Repeating sets of information items (EPD\_0)**

**Description:**

This field contains a subfield for each electropherogram. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with value 2.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.019\_1: Electropherogram Description - Electropherogram Image Reference (EIR)**

**Description:**

The first information item is the electropherogram image reference / EIR. It shall contain an alphanumeric reference up to 8 characters, which is unique for each image. If none has been assigned, enter 999. This is a unique identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	If none assigned enter 999

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogram

NIEM Element: biom:DNAElectropherogramID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.019\_2: Electropherogram Description - Electropherogram Storage Type (EST)**

**Description:**

The second information item is the electropherogram storage type / EST. This is a character string of up to 4 characters, representing the file type suffix for the electropherogram. The data is stored in "fsa", "hid" or "----". The dashes may be substituted with character strings for other format types as they become available.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	"fsa", "hid" or "----", dashes may be substituted with character strings for other format types as they become available.

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample/biom:DNAElectropherogram

NIEM Element: biom:DNAElectropherogramFileStorageText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.019\_3: Electropherogram Description - Image Data Descriptor (IDD)**

**Description:**

The third information item is the image data descriptor / IDD of the electropherogram contained in this subfield. If the data is stored externally, enter the filename. This is a Unicode string of up to 200 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample/biom:DNAElectropherogram

NIEM Element: biom:DNAElectropherogramDataDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.019\_4: Electropherogram Description - Electropherogram Data (ELPD)**

**Description:**

The fourth information item is the electropherogram data/ ELPD. This shall be stored in base-64 format.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
Base64	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogram

NIEM Element: biom:DNAElectropherogramBinaryObject

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.019\_5: Electropherogram Description - Electropherogram Screenshot (EPS)**

**Description:**

The fifth information item is optional. It is the electropherogram screenshot / EPS. This may be an image captured during the analysis. This shall be stored in base-64 format.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
Base64	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogram

NIEM Element: biom:DNAElectropherogramScreenshotImage/nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.020: DNA Genotype Distribution (DGD)**

**Description:**

This field contains informative genotype representation type of DNA information. It is an optional field. The entry is numeric: 0 = Likelihood 1 = Probability.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	DGD = 0 or 1

Code List: DNA GENOTYPE DISTROBUTION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAGenotypeDistributionCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.021: DNA Genotype Allele Pair (GAP)**

**Description:**

This field is only present if Field 18.020: DNA Genotype Distribution / DGD has a value. It is used for low-template, mixture or stain scenarios only. It is comprised of a repeating subfield that occurs once for each allele pair. Allele calls are captured in Field 18.016: Autosomal STR, X-STR and Y-STR profile / STR.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAGenotypeAllelePair

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.021\_0: DNA Genotype Allele Pair - Subfields: Repeating sets of information items (GAP\_0)**

**Description:**

This field is only present if Field 18.020: DNA Genotype Distribution / DGD has a value. It is used for low-template, mixture or stain scenarios only. It is comprised of a repeating subfield that occurs once for each allele pair. Allele calls are captured in Field 18.016: Autosomal STR, X-STR and Y-STR profile / STR.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.021\_1: DNA Genotype Allele Pair - Genotype Locus Reference (GLR)**

**Description:**

The first information item is the genotype locus reference / GLR. The current valid loci for Autosomal, Y and X-STRs are maintained by NIST and are available at [http://www.nist.gov/itl/iad/ig/ansi\\_standard.cfm](http://www.nist.gov/itl/iad/ig/ansi_standard.cfm) . The GLR is a numeric entry with up to 3 characters per locus. The maximum value of 200 listed in Table 112 from ANSI/NIST-ITL Update: 2015 is to allow for potential additions to the loci reference table.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤GLR ≤200; positive integer

Code List: DNA LOCI CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAGenotypeAllelePair

NIEM Element: biom:DNALocusReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.021\_2: DNA Genotype Allele Pair - Allele Pair (ALP)**

**Description:**

The second information item is the allele pair / ALP. This is a numeric information item containing the allele pair data of up to 9 numeric characters separated by a comma between values. An example is "14,23.3" or "22.1,23.3"

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	9	1	1
Character Types	Special Characters	Format	Constraints
NS	Comma, period	n/a	digits, one comma, and up to 2 periods allowed

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAGenotypeAllelePair

NIEM Element: biom:DNAGenotypeAllelePairText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.021\_3: DNA Genotype Allele Pair - Genotype Numerical Weight (GNW)**

**Description:**

The third information item is the genotype numerical weight / GNW. It is a non-negative real number up to 5 characters (including a period) ranging from 0 to 1. An example is "0.114".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
NS	Period	n/a	0 ≤GNW ≤1; non-negative real number up to 5 characters, which may have a period

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAGenotypeAllelePair

NIEM Element: biom:DNALocusGenotypeProbabilityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.022: Comment (COM)**

**Description:**

This information item allows a free text comment or description to be provided by the examiner about the referenced field and subfield in this instance of a Type-18 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNACommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.023: Electropherogram Ladder (EPL)**

**Description:**

This optional field contains a repeating subfield for a ladder / control sample. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with the value 3.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample

NIEM Element: biom:DNAElectropherogramLadder

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.023\_0: Electropherogram Ladder - Subfields: Repeating sets of information items (EPL\_0)**

**Description:**

This field contains a repeating subfield for a ladder / control sample. This field is only present if Field 18.011: Sample typing Information / STI has a subfield with the value 3.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.023\_1: Electropherogram Ladder - Ladder Image Reference (LIR)**

**Description:**

The first information item is the ladder image reference / LIR. It shall contain an alphanumeric reference up to 8 characters, which is unique for each image. If none has been assigned, enter 999. This is a unique identifier.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogramLadder

NIEM Element: biom:DNAElectropherogramID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.023\_2: Electropherogram Ladder - Ladder Storage Type (LST)**

**Description:**

The second information item is the ladder storage type / LST. This is a string of up to 4 characters, representing the file type suffix for the electropherogram. The data is stored in "fsa", "hid" or "----" The dashes may be substituted with character strings for other format types as they become available.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	4	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogramLadder

NIEM Element: biom:DNAElectropherogramFileStorageText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.023\_3: Electropherogram Ladder - Ladder Image Data Descriptor (LDD)**

**Description:**

The third information item is the ladder image data descriptor / LDD of the electropherogram contained in this subfield. If the data is stored externally, enter the filename. This is an alphanumeric string with special characters allowed. An example is "NIST Run 5 Well A07 12 Jan 11"

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogramLadder

NIEM Element: biom:DNAElectropherogramDataDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.023\_4: Electropherogram Ladder - Ladder Electropherogram Data (LEPD)**

**Description:**

The fourth information item is the ladder electropherogram data/ LEPD. This shall be stored in base-64 format.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
Base64	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogramLadder

NIEM Element: biom:DNAElectropherogramBinaryObject

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.023\_5: Electropherogram Ladder - Ladder Electropherogram Screenshot (LES)**

**Description:**

The fifth information item is optional. It is the ladder electropherogram screenshot / LES. This may be an image captured during the analysis. This shall be stored in base-64 format.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	Unlimited	0	1
Character Types	Special Characters	Format	Constraints
Base64	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:DNAElectropherogramLadder

NIEM Element: biom:DNAElectropherogramScreenshotImage/nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.902: Annotation Information (ANN)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**18.902\_0: Annotation Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.902\_1: Annotation Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**18.902\_2: Annotation Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.902\_3: Annotation Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**18.902\_4: Annotation Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-9 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	Unlimited	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.992: Type-2 Record Cross Reference (T2C)**

**Description:**

This is an optional field. When used, it contains the IDC value of the Type-2 record that contains relevant biographic information and other data concerning the subject of this instance of the record, who may be different from the subject of the transaction.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤T2C≤99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord

NIEM Element: biom:Type2CrossReferenceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**18.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field 18.004: Source agency / SRC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.995: Associated Context (ASC)**

**Description:**

This is a mandatory field comprised of two information items. The first information item is mandatory. It is file type / FTY. If the associated context file is a digital file, this shall contain the suffix indicating the file type. If it is an analog file, enter 'ANALOG'. For digital data stored in other formats (such as digital tape) that do not have computer file names and suffixes, enter 'OTHER'. The second information item is decoding instructions / DEI. It is optional and contains free text up to 1000 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.995\_0: Associated Context - Subfields: Repeating sets of information items (ASC\_0)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: N/A

NIEM Element: N/A

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item contains the associated context number / ACN for the Associated Context field for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (ACN). The value of the CAN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ACN ≤255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The second information item in Field xx.995 is optional. It is the associated segment position / ASP. It contains the index to a particular set of segmentation coordinates of the associated context data. This same segmentation index value appears in Record Type-21 as the associated segment position / ASP in Field 21.016: Segments / SEG. There may be up to 99 segments listed in Field 21.016, but only the relevant segment is contained in Field xx.995.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	1 ≤ASP ≤99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the DNA was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture

NIEM Element: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z is indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-90 ≤LTD ≤90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-180 ≤LGD ≤180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-18: DNA Data

**18.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 < ELE < 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DEospatialCoordinate

NIEM Element: nc:LocationElevation/nc:MeasureDecimalValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	value from Geographic coordinate datum code values in ANSI/NIST-ITL Update: 2015

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate

NIEM Element: biom:GeodeticDatumCoordinateSystemCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: mo:MGRSCoordinateStringText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**18.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information items specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-18: DNA Data

**18.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html> .

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageDNARRecord/biom:DNASample/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord

NIEM Element: itl:Transaction

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IDC ≤ 99 integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0 No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.003: SRN Cardinality (CAR)**

**Description:**

This mandatory field indicates how this record is being used. It describes the cardinality: one to one (S), one to many (D), or many-to-one (M) of how the source representation record relates to other record(s) within the transaction. See table 120 CAR values in ANSI/NIST-ITL Update: 2015 for additional information.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	CAR = S, D, or M

Code List: CARDINALITY CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:SourceRecordCardinalityCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0 No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.004: Source Agency (SRC)**

**Description:**

This is a mandatory field. See Section 7.6 of the ANSI/NIST-ITL 1-2011 Update: 2015 for details. The source agency name may be entered in Field 21.993: Source agency name / SAN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.005: Source Representation Date (SRD)**

**Description:**

This optional field shall contain the local date and time that the source representation contained in the record was captured. It may not be possible to know the exact date of imagery capture. In such a case, specify the date to the level known. For traditional encoding, fill the unknown portions of the date with zeros. For XML, use a date element with the correct level of precision. Field 20.022: Imagery capture date range estimate/ICDR should be used in conjunction with this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Dependent	Encoding Dependent	0	1
Character Types	Special Characters	Format	Constraints
Encoding Dependent	None	n/a	Encoding Dependent

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.006: Horizontal Line Length (HLL)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. HLL defines the number of pixels contained on a single horizontal line of the image. The maximum horizontal size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels. The total image size (HLL times VLL) must be able to be accommodated in Field xx.001 for Traditional encoding.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	10 ≤ HLL ≤ 99999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:HorizontalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.007: Vertical Line Length (VLL)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. VLL defines the number of horizontal lines contained in the image. The maximum vertical size is limited to 65,535 pixels in Record Types-4 and 8, and to 99,999 for other record types. The minimum value is 10 pixels.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	11 ≤ HLL ≤ 99999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:VerticalLineLengthPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-20: Source Representation

**20.008: Scale Units (SLC)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. The image sampling frequency (pixel density). A value of "1" shall indicate pixels per inch. A value of "2" shall indicate pixels per centimeter. A value of "0" in this field indicates that no scale is provided, and the quotient of THPS/TVPS shall provide the pixel aspect ratio. For non-contact images of body parts, SLC shall be set to 0 unless the object being imaged is a fixed distance from the capture device and the ppi or ppm values for the capture device are accurately known at that fixed distance.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SLC = 0, 1 or 2; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageScaleUnitsCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.009: Transmitted Horizontal Pixel Scale (THPS)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. This is the integer pixel density used in the horizontal direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this information item shall contain the horizontal component of the pixel aspect ratio, up to 5 integer digits. For example, if the SLC value = 1, then the value of THPS could be '1000' for a 1000 ppi sensor.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.010: Transmitted Vertical Pixel Scale (TVPS)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. This is the integer pixel density used in the vertical direction of the image if SLC has a value of "1" or "2". If SLC has a value of "0", this information item shall contain the vertical component of the pixel aspect ratio, up to 5 integer digits. If SLC is 1 or 2, then TVPS shall equal THPS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.011: Compression Algorithm (CGA)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. This is a mandatory field. It shall specify the algorithm used to compress the transmitted color or grayscale images.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	5	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Value from Table 19 Compression codes in ANSI/NIST-ITL 1-2011 Update: 2015

Code List: COMPRESSION CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageCompressionAlgorithmCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.012: Bits Per Pixel (BPX)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. This ASCII field shall contain the number of bits used to represent a pixel. This field shall contain an entry of "8" for normal grayscale values of "0" to "255" or each RGB color component. Any entry in this field greater than "8" shall represent a grayscale or color pixel component with increased precision.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	8 ≤ BPX ≤ 99

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageBitsPerPixelQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.013: Color Space (CSP)**

**Description:**

It shall contain an entry from the lookup codes below. This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. If the color image type cannot be determined, an entry of "RGB" shall be entered in this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	4	0	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	Value from Color Spaces in ANSI/NIST-ITL 1-2011 Update: 2015

Code List: COLOR SPACES CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageColorSpaceCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.014: Acquisition Source (AQS)**

**Description:**

This mandatory field shall specify and describe the acquisition source. The following information items may be repeated for up to 9 sources.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:SourceAcquisition

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.014\_0: Acquisition Source - Subfields: Repeating sets of information items (AQS\_0)**

**Description:**

This mandatory field shall specify and describe the acquisition source. The information items may be repeated for up to 9 sources.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:SourceAcquisition

XML Min/Max: 1 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.014\_1: Acquisition Source - Acquisition Source Type (AQT)**

**Description:**

The first information item, Acquisition source type (AQT), is mandatory and it shall be a numeric entry selected from the "attribute code" column of the Acquisition Source codelist in ANSI/NIST-ITL Update: 2015.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Value from Acquisition source in ANSI/NIST-ITL 1-2011 Update: 2015

Code List: ACQUISITION SOURCE CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceAcquisition

NIEM Element: biom:AcquisitionSourceCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.014\_2: Acquisition Source - Analog to Digital Conversion (A2D)**

**Description:**

The second information item is mandatory if the acquisition source is analog, and the data is stored in digital format. It is a text field, analog to digital conversion (A2D), that describes the analog to digital equipment used to transform the source. This field should address parameters used, such as sample rate, if known.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceAcquisition

NIEM Element: biom:AcquisitionDigitalConversionDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.014\_3: Acquisition Source - Radio Transmission Format Description (FDN)**

**Description:**

The third information item is mandatory if the AQT is 23 or 24. It is a text field, radio transmission format description (FDN). It is optional for other radio transmission codes.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceAcquisition

NIEM Element: biom:AcquisitionRadioTransmissionFormatDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.014\_4: Acquisition Source - Acquisition Special Characteristics (AQSC)**

**Description:**

The fourth information item is optional. It is a free text field, acquisition special characteristics (AQSC) that is used to describe any specific conditions not mentioned in the [Acquisition Source] table. An example would be a nearinfrared camera outputting images in visible wavelengths.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceAcquisition

NIEM Element: biom:AcquisitionSpecialCharacteristicsText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.015: Source Representation Format (SFT)**

**Description:**

This is a mandatory field comprised of two information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:SourceFileFormat

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.015\_1: Source Representation Format - File Type (FTY)**

**Description:**

The first information item is mandatory. It is file type (FTY). If the source representation is a digital file, this shall contain the suffix indicating the file type (such as JPG). If it is an analog file, enter 'ANALOG'. For digital data stored in other formats (such as digital tape), enter 'OTHER'.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceFileFormat

NIEM Element: biom:SourceFileCategoryText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.015\_2: Source Representation Format - Decoding Instructions (DEI)**

**Description:**

The second information item is decoding instructions (DEI). It is optional and contains free text up to 1000 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceFileFormat

NIEM Element: biom:SourceFileDecodingInstructionsText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.016: Segments (SEG)**

**Description:**

This optional field shall consist of a subfield for each segment of a 2D image to be defined. Each subfield consists of a series of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-20: Source Representation

**20.016\_0: Segments - Subfields: Repeating sets of information items (SEG\_0)**

**Description:**

This optional field shall consist of a subfield for each segment of a 2D image to be defined. Each subfield consists of a series of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	99
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:ImageSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.016\_1: Segments - Reference Segment Position (RSP)**

**Description:**

The first information item is the reference segment position / RSP. This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RSP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageSegment

NIEM Element: biom:ImageSegmentID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.016\_2: Segments - Internal File Reference Pointer (IPT)**

**Description:**

This information item is the internal file reference pointer (IPT). It is set to 0 if the source representation is a single file. If the external file referenced in Field 20.994: External file reference (EFR) or Field 21.994: External file reference (EFR) is a PDF, video, or presentation file, or has multiple locations where a sample may be located, this information item is the reference to the particular instance, such as page, video frame, or slide number used to derive the image transmitted in other record types. If a particular frame is chosen and there is no further image segmentation needed, the following information items shall not be used.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	15	1	1
Character Types	Special Characters	Format	Constraints
ANS	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageSegment

NIEM Element: biom:ImageSegmentInternalFileLocationText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.016\_3: Segments - Number of Points (NOP)**

**Description:**

Specifies the number of vertices. HPO and VPO are repeated as pairs, in order by point following the path, up to the final point – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	3 ≤ NOP ≤ 99, positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageSegment

NIEM Element: biom:PositionPolygonVertexQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.016\_4: Segments - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right. HPO and VPO are repeated as pairs, in order by point following the path, up to the final point – for a total of NOP pairs.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ HPO ≤ HLL, non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageSegment/biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.016\_5: Segments - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ VPO ≤ VLL, non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageSegment/biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.017: Scanned Horizontal Pixel Scale (SHPS)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. This ASCII field shall specify the horizontal pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the horizontal component of the pixel aspect ratio, up to 5 integer digits. This field is used if the transmission pixel scale differs from the original image scale, as listed in Transmitted horizontal pixel scale / THPS. Note that density is directly related to resolution.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Positive Integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureHorizontalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.018: Scanned Vertical Pixel Scale (SVPS)**

**Description:**

This field is mandatory if a 2D still image is contained in this instance of the record. Otherwise it shall be omitted. This ASCII field shall specify the vertical pixel density used for scanning providing the SLC field contains a "1" or a "2". Otherwise, it indicates the vertical component of the pixel aspect ratio, up to 5 integer digits. Note that density is directly related to resolution. If SLC is 1 or 2 and SHPS is entered, then SVPS shall equal SHPS. This field is used if the transmission pixel scale differs from the original image scale, as listed in Transmitted vertical pixel scale / TVPS.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Positive Integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureVerticalPixelDensityValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.019: Time Index (TIX)**

**Description:**

This is a conditional field. If the record contains video or audio, it shall contain the start and end times of segments within the file. This field shall contain two information items, time index start /TIS and time index end / TIE for the start and end times of segments within a video or audio file, measured in hh:mm:ss.sss. This field is comprised of one or more subfields. Each repeating subfield corresponds to a single segment, with a starting and end time as separate information items. This data is handled differently for each encoding. The zero time index shall be clearly indicated on the source, unless it is the absolute beginning of the file.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:TimeSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.019\_0: Time Index - Subfields: Repeating sets of information items (TIX\_0)**

**Description:**

This is a conditional field. If the record contains video or audio, it shall contain the start and end times of segments within the file. This field shall contain two information items, time index start /TIS and time index end / TIE for the start and end times of segments within a video or audio file, measured in hh:mm:ss.sss. This field is comprised of one or more subfields. Each repeating subfield corresponds to a single segment, with a starting and end time as separate information items. This data is handled differently for each encoding. The zero time index shall be clearly indicated on the source, unless it is the absolute beginning of the file.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	99
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail

NIEM Element: biom:TimeSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.019\_1: Time Index - Time Index Start (TIS)**

**Description:**

For Type-20 or Type-21 records containing video or audio, this information item of the Time Index field shall contain the start times of segments within a video or audio file, measured in hh:mm:ss.sss where ss.sss refers to the seconds and milliseconds.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
12	12	1	1
Character Types	Special Characters	Format	Constraints
NS	n/a	n/a	TIS ≥ zero time index (00:00:00.000)

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:TimeSegment

NIEM Element: biom:TimeSegmentStartTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.019\_2: Time Index - Time Index End (TIE)**

**Description:**

For Type-20 or Type-21 records containing video or audio, this information item of the Time Index field shall contain the end times of segments within a video or audio file, measured in hh:mm:ss.sss where ss.sss refers to the seconds and milliseconds.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
12	12	1	1
Character Types	Special Characters	Format	Constraints
NS	n/a	n/a	TIE > TIS

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:TimeSegment

NIEM Element: biom:TimeSegmentEndTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.020: Comment (COM)**

**Description:**

The optional Comment field may be used to insert comments or other text information with the representation standard.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:SourceCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.021: Source Representation Number (SRN)**

**Description:**

This mandatory field contains a reference number for the source representation stored in this record. Note that the segment references are contained in Field 20.016: Segments (SEG) if they exist. The value for SRN in Field 20.021 corresponds to the SRN that may be referenced as the first information item in the SOR field of other Record Types. The SRN is a positive integer that uniquely refers to a particular instance of Record Type-20. It is an integer, numbered sequentially beginning at one and incremented for each instance of Record Type-20.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SRN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.022: Imagery Capture Date Range Estimate (ICDR)**

**Description:**

This is the amount of time (plus and minus) of which SRD is the center point during which the image data could have been originally collected. In Traditional format, it is entered in the format as YyyMmmDdd. It is possible to enter only a year, month and/or day range, such as D5, meaning that the actual date of collection is estimated to be 5 days plus or minus from that specified in SRD. Leading zeros need not be entered. For XML implementations, this element is represented using an XML duration type with the format PnYnMnDnHnMnS, P indicates that there is a date value range and T indicates that there is a time value range. Under P, nY is the number of years, nM is the numbers of months, nD is the number of days. Under T, nH is the number of hours, nM is the number of minutes, and nS is the number of seconds.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	9	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Time measure indicator followed by 1 or 2 digits. May be concatenated, with larger time units first. Units: Y year, M month, D day

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDateEstimateRangeDuration

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.101: Voice Engine Mode Export (MODEL\_EXPORT)**

**Description:**

Information set returned with the Speaker Candidate Results (SCR) response TOT as a result of the SID - Speaker Identification request TOT. The information set contains results regarding matches against the stored voice engine model.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: DoD EBTS v4.0

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-20: Source Representation

**20.101\_1: Voice Engine Mode Export - Model Identifier (MODEL\_EXPORT\_1)**

**Description:**

Identifier for the Exported Model File

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: DoD EBTS v4.0

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**20.101\_2: Voice Engine Mode Export - Model Export Software Version (MODEL\_EXPORT\_2)**

**Description:**

Software version of the voice model engine generating the model and running the voice match comparison algorithm.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: DoD EBTS v4.0

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.101\_3: Voice Engine Mode Export - Model Export Software Name (MODEL\_EXPORT\_3)**

**Description:**

Name of the software voice model engine generating the model and running the voice match comparison algorithm.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: DoD EBTS v4.0

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**20.101\_4: Voice Engine Mode Export - Model Export Associated Type 2 Reference (MODEL\_EXPORT\_4)**

**Description:**

Transaction Identification Character (IDC) for the Type 2 record associated with the exported model.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: DoD EBTS v4.0

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.101\_5: Voice Engine Mode Export - Model Export Comment (MODEL\_EXPORT\_5)**

**Description:**

Comment Text Regarding Model Export

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	255	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: DoD EBTS v4.0

Status: Active

DoD EBTS 1.2:	No	DoD EBTS 2.0:	No	DoD EBTS 3.0:	No	DoD EBTS 4.1:	Yes
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**20.101\_6: Voice Engine Mode Export - Model Export Software Vendor (MODEL\_EXPORT\_6)**

**Description:**

Text that specifies the software code vendor name

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	n/a

Source: DoD EBTS v4.0

Status: Active

DoD EBTS 1.2:	No	DoD EBTS 2.0:	No	DoD EBTS 3.0:	No	DoD EBTS 4.1:	Yes
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Type-20: Source Representation

**20.902: Annotated Information (ANN)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.902\_0: Annotated Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Encoding Dependent

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**20.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-9 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.903: Device Unique Identifier (DUI)**

**Description:**

This is an optional field. The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of the following: a Host PC MAC address (identified by the first character "M"), a Host PC processor ID (identified by the first character "P").

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
13	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	First character = M or P

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.904: Make/Model/Serial Number (MMS)**

**Description:**

This is an optional field. The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:ImageCaptureType

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.904\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1

Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.904\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1

Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-20: Source Representation

**20.904\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field 20.004: Source agency / SRC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageSourceRepresentationRecord/biom:SourceMediaDetail/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.994: External File Reference (EFR)**

**Description:**

This conditional field shall be used to enter the URL / URI or other unique reference to a storage location for all source representations, if the data is not contained in Field 20.999: Associated context data (DATA). If this field is used, Field 20.999 shall not be set. However, one of the two fields shall be present in all instances of this record type. A non-URL reference might be similar to: "Case 2009:1468 AV Tape 5". It is highly recommended that the user state the format of the external file in Field 20.020: Comment / COM.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:SourceExternalFileReferenceText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.995: Associated Context (ASC)**

**Description:**

Optional field xx.995 is contained in biometric data sample Record Types 10 and above that may have instances of Record Type-21 linked to it. Record Type-21 stores images and/or recordings that are not the actual source of the biometric data contained in another Record Type, but do show the context of the biometric data. An example would be a crime scene photograph showing the location of a glass that had latent prints on it. However, the close-up image of the latent prints could appear in a Type-20 record (since that is the image that the individual fingerprint images are derived from), with the segmented individual images appearing in Type-13 records. This field consists of a maximum of 255 repeating subfields, each of which contains two information items, as described below. There may be multiple instances of associated context records associated with a single biometric sample. Figure 2 illustrates relationships of the fields and information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.995\_0: Associated Context - Subfields: Repeating sets of information items (ASC\_0)**

**Description:**

This optional field refers to one or more Type 21 Records with the same ACN. Type 21 Records contain images that are NOT used to derive the biometric data in Field 13.999: Latent friction ridge image (DATA) but that may be relevant to the collection of that data, such as general scenes of the area where a latent print was found.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item for the associated context number / ACN for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (ACN). The value of the ACN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ ACN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The first information item in Field xx.995 is optional. It is the associated segment position / ASP. It contains the index to a particular set of segmentation coordinates of the associated context data. This same segmentation index value appears in Record Type-21 as the associated segment position / ASP in Field 21.016: Segments / SEG. There may be up to 99 segments listed in Field 21.016, but only the relevant segment is contained in Field xx.995.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ASP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.996: Hash (HAS)**

**Description:**

This is an optional field. It shall contain the hash value of the source representation in the external file reference in Field 20.994: External file reference / EFR or the 2D still image or other biometric data in Field 20.999: Source representation data / DATA of this record, calculated using SHA-256.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the original source was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Dependent	Encoding Dependent	0	1
Character Types	Special Characters	Format	Constraints
Encoding Dependent	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-90 ≤ LTD ≤ 90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	None	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal,Minus Sign,Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	None	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-20: Source Representation

**20.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 ≤ ELE ≤ 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Value from Geographic coordinate datum code values in ANSI/NIST-ITL 1-2011 Update: 2015

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: Latitude data no longer formatted

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**20.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html>.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-20: Source Representation

**20.999: Source Representation Data (DATA)**

**Description:**

If this field is used, Field 20.994: External file reference / EFR shall not be set. However, one of the two fields shall be present in all instances of this record type. In Traditional format, this field shall be the last field in the record layout.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
B	None	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageSourceRepresentationRecord

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord

NIEM Element: itl:Transaction

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.002: Information Designation Character (IDC)**

**Description:**

This mandatory field shall contain the IDC assigned to this Type-21 record as listed in the information item IDC for this record in Field 1.003: Transaction content / CNT.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤IDC ≤99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.004: Source Agency (SRC)**

**Description:**

This is a mandatory field. The source agency name may be entered in Field 21.993: Source agency name / SAN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.005: Associated Context Date (ACD)**

**Description:**

This optional field shall contain the date and time that the context representation contained in the record was captured. It may not be possible to know the exact date of imagery capture. In such a case, specify the date to the level known and fill the rest of the date with zeros. For traditional encoding, fill the unknown portions of the date with zeros. For XML, use a date element with the correct level of precision. Field 21.022: Imagery capture date range estimate/ ICDR should be used in conjunction with this field.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
Encoding Specific	Colon, Period	YYYYMMDDhh:mm:ss.sss	N/A

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.006: Medical Device Information (MDI)**

**Description:**

This field is designed to allow the transmission of information concerning medically implanted devices or devices used by an individual externally that may be discovered in or on unknown deceased and may assist in the person's identification. Each subfield is comprised of six information items, any combination of which may be entered. Each subfield describes a single device (such as a pacemaker or an artificial knee).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail

NIEM Element: biom:MedicalDevice

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.006\_0: Medical Device Information - Subfields: Repeating sets of information items (MDI\_0)**

**Description:**

This field is designed to allow the transmission of information concerning medically implanted devices or devices used by an individual externally that may be discovered in or on unknown deceased and may assist in the person's identification. Each subfield is comprised of six information items, any combination of which may be entered. Each subfield describes a single device (such as a pacemaker or an artificial knee).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail

NIEM Element: biom:MedicalDevice

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.006\_1: Medical Device Information - Type of Device (TYP)**

**Description:**

The first information item is the type of device / TYP. It is optional. A typical entry may be 'metal plate in right arm' or 'external leg brace for left leg'.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	500	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:MedicalDevice

NIEM Element: biom:DeviceCategoryText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-21: Associated Context

**21.006\_2: Medical Device Information - Device Manufacturer (MFG)**

**Description:**

The second information item is the device manufacturer / MFG. It is optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	500	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:MedicalDevice

NIEM Element: biom:DeviceManufacturerText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.006\_3: Medical Device Information - Device Make (MAK)**

**Description:**

The third information item is the device make / MAK. It is optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	500	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:MedicalDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.006\_4: Medical Device Information - Device Model (MOD)**

**Description:**

The fourth information item is the device model / MOD. It is optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	500	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:MedicalDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.006\_5: Medical Device Information - Device Serial Number (SER)**

**Description:**

The fifth information item is the device serial number / SER. It is optional.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	500	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:MedicalDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.006\_6: Medical Device Information - Comments (COM)**

**Description:**

The sixth information item is optional. It is any comment / COM concerning the device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:MedicalDevice

NIEM Element: biom:DeviceDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.015: Associated Context Format (AFT)**

**Description:**

This is a mandatory field comprised of two information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:ContextFileFormat

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.015\_1: Associated Context Format - File Type (FTY)**

**Description:**

The first information item is mandatory. It is file type / FTY. If the associated context file is a digital file, this shall contain the suffix indicating the file type. If it is an analog file, enter 'ANALOG'. For digital data stored in other formats (such as digital tape) that do not have computer file names and suffixes, enter 'OTHER'. Examples of suffixes indicating file types are: WAV and TXT. There are many file extensions in common use, depending upon the type of data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextFileFormat

NIEM Element: biom:ContextFileCategoryText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.015\_2: Associated Context Format - Decoding Instructions (DEI)**

**Description:**

The second information item is decoding instructions / DEI. It is optional and contains free text up to 1000 characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextFileFormat

NIEM Element: biom:ContextFileDecodingInstructionsText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.016: Segments (SEG)**

**Description:**

This optional field shall consist of a subfield for each segment to be defined. Each subfield consists of a series of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail

NIEM Element: biom:ImageSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.016\_0: Segments - Subfields: Repeating sets of information items (SEG\_0)**

**Description:**

This optional field shall consist of a subfield for each segment to be defined. Each subfield consists of a series of information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	99
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail

NIEM Element: biom:ImageSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.016\_1: Segments - Associated Segment Position (ASP)**

**Description:**

The first information item is the associated segment position / ASP. This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ASP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:ImageSegment

NIEM Element: biom:ImageSegmentID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.016\_2: Segments - Internal File Reference Pointer (IPT)**

**Description:**

The second information item is the internal file reference pointer/ IPT. It is set to 0 if the source representation is a single file. If the external file referenced in Field 20.994: External file reference / EFR or Field 21.994: External file reference / EFR is a PDF, video, or presentation file, or has multiple locations where a sample may be located, this information item is the reference to the particular instance, such as page, video frame, or slide number used to derive the image transmitted in other record types. If a particular frame is chosen and there is no further image segmentation needed, the following information items shall not be used. This entry is free text with any special characters are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	15	1	1
Character Types	Special Characters	Format	Constraints
ANS	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:ImageSegment

NIEM Element: biom:ImageSegmentInternalFileLocationText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.016\_3: Segments - Number of Points (NOP)**

**Description:**

Specifies the number of vertices.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	3 ≤NOP ≤99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:ImageSegment

NIEM Element: biom:PositionPolygonVertexQuantity

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.016\_4: Segments - Horizontal Point Offset (HPO)**

**Description:**

The pixel counts to the right.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:ImageSegment/biom:PositionPolygonVertex

NIEM Element: biom:PositionHorizontalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.016\_5: Segments - Vertical Point Offset (VPO)**

**Description:**

The pixel counts down from the origin.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	0	NOP
Character Types	Special Characters	Format	Constraints
N	None	n/a	non-negative integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:ImageSegment/biom:PositionPolygonVertex

NIEM Element: biom:PositionVerticalCoordinateValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.019: Time Index (TIX)**

**Description:**

This field is mandatory for records containing video or audio, but not 2D still images. If the record contains video or audio, it shall contain the start and end times of segments within the file. For records containing video or audio, this field shall contain two information items, time index start /TIS and time index end / TIE for the start and end times of segments within a video or audio file. This field is comprised of one or more subfields. Each repeating subfield corresponds to a single segment, with a starting and end time as separate information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail

NIEM Element: biom:TimeSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-21: Associated Context

**21.019\_0: Time Index - Subfields: Repeating sets of information items (TIX\_0)**

**Description:**

This field is mandatory for records containing video or audio, but not 2D still images. If the record contains video or audio, it shall contain the start and end times of segments within the file. For records containing video or audio, this field shall contain two information items, time index start /TIS and time index end / TIE for the start and end times of segments within a video or audio file. This field is comprised of one or more subfields. Each repeating subfield corresponds to a single segment, with a starting and end time as separate information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	99

Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail

NIEM Element: biom:TimeSegment

XML Min/Max: 0 / 99

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.019\_1: Time Index - Time Index Start (TIS)**

**Description:**

For records containing video or audio, this information item of the Time Index field shall contain the start times of segments within a video or audio file, measured in hh:mm:ss.sss where ss.sss refers to the seconds and milliseconds.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
12	12	1	1

Character Types	Special Characters	Format	Constraints
NS	n/a	n/a	TIS ≥ 0 time index (00:00:00.000)

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:TimeSegment

NIEM Element: biom:TimeSegmentStartTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.019\_2: Time Index - Time Index End (TIE)**

**Description:**

For records containing video or audio, this information item of the Time Index field shall contain the end times of segments within a video or audio file, measured in hh:mm:ss.sss where ss.sss refers to the seconds and milliseconds.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
12	12	1	1
Character Types	Special Characters	Format	Constraints
NS	n/a	n/a	TIE > TIS

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:TimeSegment

NIEM Element: biom:TimeSegmentEndTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.020: Comment (COM)**

**Description:**

This optional field may be used to insert comments or other text information with the representation data.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:ContextCommentText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.021: Associated Context Number (ACN)**

**Description:**

This mandatory field contains a reference number for the context representation stored in this record. Note that the segment references are contained in Field 21.016: Segments / SEG, if they exist. This number corresponds to the ACN that may be referenced as the first information item in the ASC field of other Record Types. The ACN is a positive integer that uniquely refers to a particular instance of Record Type-21. It is a positive integer, numbered sequentially beginning at one and incremented for each instance of Record Type-21.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ ACN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.022: Image Capture Date Range Estimate (ICDR)**

**Description:**

This is the amount of time (plus and minus) of which ACD is the center point during which the image data could have been originally collected. In Traditional format, it is entered in the format as YyyMmmDdd. It is possible to enter only a year, month and/or day range, such as D5 meaning that the actual date of collection is estimated to be 5 days plus or minus from that specified in ACD. Leading zeros need not be entered. For XML implementations, this element is represented using an XML duration type with the format PnYnMnDTnHnMnS, P indicates that there is a date value range and T indicates that there is a time value range. Under P, nY is the number of years, nM is the numbers of months, nD is the number of days. Under T, nH is the number of hours, nM is the number of minutes, and nS is the number of seconds.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	9	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	Time measure indicator followed by 1 or 2 digits. May be concatenated, with larger time units first. Units: Y year, M Month, D Day

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture

NIEM Element: biom:CaptureDateEstimateRangeDuration

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.046: Image Subject Condition (SUB)**

**Description:**

This field is optional. There may be different values for SUB in different instances of Type-14 records. For example, some images may have been acquired antemortem, while others were acquired post-mortem. This field describes the condition of the subject at the time of the imaging.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail

NIEM Element: biom:SubjectExistentialDetails

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.046\_1: Image Subject Condition - Subject Status Code (SSC)**

**Description:**

This information item is mandatory if this field is present. It is subject status code / SSC. Possible entries are: X = Status of individual unknown; A = Data obtained from a living person – such as a victim or person unable to identify themselves; D = Data obtained from a non-living person.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	SSC = X, A, or D

Code List: SUBJECT STATUS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectExistentialStatusCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.046\_2: Image Subject Condition - Subject Body Status Code (SBSC)**

**Description:**

This information item shall be entered if and only if SSC is D. It is subject body status code / SBSC. Its purpose is to indicate whether the information relates to an entire corpse or a separate body part. The numeric value is selected from the descriptors below: 1 = Whole; 2 = Fragment.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBSC = 1 or 2

Code List: SUBJECT BODY STATUS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyStatusCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.046\_3: Image Subject Condition - Subject Body Class Code (SBCC)**

**Description:**

This information item shall be entered if and only if SSC is D. It is subject body class code/ SBCC. The numeric value is selected from the descriptors below: 1 = Natural Tissue; 2 = Decomposed; 3 = Skeletal.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	SBCC = 1, 2 or 3

Code List: SUBJECT BODY CLASS CODES

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:SubjectExistentialDetails

NIEM Element: biom:SubjectBodyClassCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**21.047: Capture Organization Name (CON)**

**Description:**

This field is optional. Note that this can be different from the agency entered in Field 21.004: Source agency / SRC and Field 21.993: Source agency name / SAN. SRC and SAN describe the agency that created the record. Since the record may have been forwarded by another agency to the final destination, Field 1.008: Originating agency identifier / ORI is used to indicate the transmitting organization. In many implementation domains, there are a limited number of transmission organizations that can send data. Therefore, the agency listed in SRC may send the transaction to another location that has access rights to the final destination. This intermediary may add information to the transaction, as well. The final transmitting organization code is listed in Field 1.008: Originating agency identifier / ORI. Its name may be entered in Originating agency name /OAN in Field 1.017: Agency names / ANM.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	1000	0	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:CaptureOrganization

NIEM Element: nc:OrganizationUnitName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.902: Annotated Information (ANN)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.902\_0: Annotated Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This optional field is used to store annotation, logging, or processing information associated with one or more processing algorithms, processes, or latent workstations (other than the FBI-developed ULW). If present, this text shall consist of one or more subfields comprised of a set of information items. Four mandatory items comprise a subfield.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. Time (GMT) units. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
15	15	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-21: Associated Context

**21.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-9 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field 21.004: Source agency / SRC.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.994: External File Reference (EFR)**

**Description:**

This conditional field shall be used to enter the URL / URI or other unique reference to a storage location for all associated context files EXCEPT 2D still images. If this field is used, Field 21.999: Associated context data / DATA shall not be set. However, one of the two fields shall be present in all instances of this record type. It is an alphanumeric entry, with special characters allowed. A non-URL reference might be similar to: "Case 2009:1468 AV Tape 5". It is highly recommended that the user state the format of the external file in Field 21.020: Comment / COM.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:SourceExternalFileReferenceText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.996: Hash (HAS)**

**Description:**

This optional field shall contain the hash value of the context representation in the external file reference in Field 21.994: External file reference / EFR or the 2D still image or other data stored in Field 21.999: Associated context data / DATA of this record, calculated using SHA-256.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the iris sample/original source/context information was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture

NIEM Element: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z is indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
Encoding Specific	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign, Plus Sign	n/a	-90 ≤LTD ≤90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate

NIEM Element: nc:LatitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	None	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign, Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	None	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 < ELE < 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate

NIEM Element: nc:LocationElevation/nc:MeasureDecimalValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	See Table 7 Geographic coordinate datum code values of the ANSI/NIST-ITL 1-2011 Update: 2015.

Code List: GEOGRAPHIC COORDINATE DATUM CODE

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate

NIEM Element: biom:GeodeticDatumCoordinateSystemCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-21: Associated Context

**21.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:Location3DGeospatialCoordinate

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: mo:MGRSCoordinateStringText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydrant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**21.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html>.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageAssociatedContextRecord/biom:ContextMediaDetail/biom:BiometricCapture/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-21: Associated Context

**21.999: Associated Context Data (DATA)**

**Description:**

If this field is used, Field 21.994: External file reference / EFR shall not be set. However, one of the two fields shall be present in all instances of this record type. It is mandatory for a 2D still image. See Section 7.2 of ANSI/NIST ITL 1-2011 for details.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	0	1
Character Types	Special Characters	Format	Constraints
B	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageAssociatedContextRecord

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**98.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
N	Encoding Specific	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord

NIEM Element: itl:Transaction

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-98: Information Assurance

**98.002: Information Designation Character (IDC)**

**Description:**

This mandatory field shall contain the IDC assigned to this Type-98 record as listed in the information item IDC for this record in Field 1.003: Transaction content / CNT.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤IDC ≤99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**98.003: IA Data Format Owner (DFO)**

**Description:**

This mandatory field shall contain a four digit hex value assigned by an authoritative body which denotes the vendor, standards body, working group, or industry consortium that has defined the format of the information assurance data. The IA data format owner and Field 98.005: IA data format type / DFT, when used in combination with one another uniquely identify the specific format of the IA content. This IA data format definition may be published (public) or unpublished (non-public).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord

NIEM Element: biom:AssuranceFormatOwnerID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-98: Information Assurance

**98.004: Source Agency (SRC)**

**Description:**

This is a mandatory field. This is the identifier of the agency that actually created the record and supplied the information contained in it. The source agency name may be entered in Field 98.993: Source agency name / SAN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord/biom:AssuranceOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**98.005: IA Data Format Type (DFT)**

**Description:**

This mandatory field shall be used to identify the value assigned by the format owner (DFO) to represent the specific IA data format as specified by the format owner. This may be a nonstandard, unpublished data format or a data format that has been standardized by an industry group, consortium, or standards body.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	20	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord

NIEM Element: biom:AssuranceFormatDescriptorText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-98: Information Assurance

**98.006: IA Data Creation Date (DCD)**

**Description:**

This mandatory field shall contain the date and time that IA data was created. The date and time shall appear as GMT format.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	Dependent upon encoding, nc:DateType

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord

NIEM Element: biom:AssuranceUTCDateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**98.900: Audit Log (ALF)**

**Description:**

This optional field contains a series of repeating subfields. One complete audit statement (subfield of ALF) shall be completed for each modified datum. If this field appears, then Field 98.901 Audit revision number / ARN shall also be in the record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord

NIEM Element: biom:AssuranceLogEntry

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-98: Information Assurance

**98.900\_0: Audit Log - Subfields: Repeating sets of information items (ALF\_0)**

**Description:**

Each repeating subfield shall be composed of the following information items: event / EVT is the first information item. It is mandatory and shall contain textual information describing the event that occurred to the ANSI/NIST-ITL record/field, and shall be chosen from the following controlled vocabulary: Added, Modified, Deleted, Corrupted. event reason / EVR is the second information item. It states the rationale behind the Event that occurred. This information item is optional and should be populated with up to 200 Unicode characters. information identifier / IID is the third information item. It is mandatory and identifies the field/subfield/information item that has been affected by the Event. It is defined as the concatenation of the IDC, a comma, the Field Number in the standard, a comma, the repeat count of the subfield (default = NA), a comma, and the information item mnemonic (if it exists). If a repeating subfield or information item does not exist, enter a "NA". Examples: 17,10.014,NA,BBC; 3,9.373,4,NA; 8,10.024,2,QVU. For repeating pairs of information items, the repeat count of the information item may follow the mnemonic. This value is also used to specify an item in a list. This position need not be filled with NA if it is not relevant. Third repeating pair example for the first element of the pair (HPO): 5,10.033,1,HPO,3. Example for the fifteenth item in the list (MARC): 29,12.011,1,MARC,15. Note that for Record Type-1 the IDC value is NA. For the case when a repeated subfield is removed, the entry for the repeat field number is the original repeat set count, preceded by a negative; the information item mnemonic is entered as "NA". When an information item is removed, the mnemonic is preceded by a negative. When an optional field is removed, the field number is preceded by a minus. Even though subfields and information items may have been in the field, the field number is followed by "NA,NA" so that the subfields and information items do not have to be individually listed. 12,10.024,-2,NA; 6,18.016,NA,-AL3; 5,-14.024,NA,NA. If two records of the same type have the same IDC, then the IDC value can be suffixed by an indicator of the sequence of the affected record with the transaction. For example, if there were two Type-14 records with the same IDC (indicating that it is the same image – for instance one RAW and the other losslessly compressed as explained in Section 7.3.1 Information designation character / IDC), the second one within the transaction sequentially would be referenced as 7-2 for the IDC. A reference of 7 is equivalent to 7-1. agent / AGT is the fourth information item. It is mandatory and shall contain information describing the entity (Agent) responsible for the EVT that affected the object identified by the IID. [2015a>] Up to 200 Unicode characters are allowed. old value / OLD is the fifth information item. It is optional. When used, it shall contain the original value of the location in the transaction referenced in IID before it was affected by the event (EVT).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	*
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord

NIEM Element: biom:AssuranceLogEntry

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-98: Information Assurance

**98.900\_1: Audit Log - Event (EVT)**

**Description:**

Event / EVT is the first information item. It is mandatory and shall contain textual information describing the event that occurred to the ANSI/NIST-ITL record/field, and shall be chosen from the following controlled vocabulary: Added, Modified, Deleted, Corrupted.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
5	9	1	1
Character Types	Special Characters	Format	Constraints
A	None	n/a	EVT = Added, Modified, Deleted or Corrupted

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord/biom:AssuranceLogEntry

NIEM Element: biom:AssuranceLogEventCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**98.900\_2: Audit Log - Event Reason (EVR)**

**Description:**

Event reason / EVR is the second information item. It states the rationale behind the Event that occurred. This information item is optional and should be populated with up to 200 Unicode characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	0	1
Character Types	Special Characters	Format	Constraints
U	integer	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord/biom:AssuranceLogEntry

NIEM Element: biom:AssuranceLogEventReasonText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-98: Information Assurance

**98.900\_3: Audit Log - Information Identifier (IID)**

**Description:**

Information identifier / IID is the third information item. It is mandatory and identifies the field/subfield/information item that has been affected by the Event. It is defined as the concatenation of the IDC, a comma, the Field Number in the standard, a comma, the repeat count of the subfield (default = NA), a comma, and the information item mnemonic (if it exists). If a repeating subfield or information item does not exist, enter a "NA". Examples: 17,10.014,NA,BBC; 3,9.373,4,NA; 8,10.024,2,QVU. For repeating pairs of information items, the repeat count of the information item may follow the mnemonic. This value is also used to specify an item in a list. This position need not be filled with NA if it is not relevant. Third repeating pair example for the first element of the pair (HPO): 5,10.033,1,HPO,3.Example for the fifteenth item in the list (MARC): 29,12.011,1,MARC,15. Note that for Record Type-1 the IDC value is NA. For the case when a repeated subfield is removed, the entry for the repeat field number is the original repeat set count, preceded by a negative; the information item mnemonic is entered as "NA". When an information item is removed, the mnemonic is preceded by a negative. When an optional field is removed, the field number is preceded by a minus. Even though subfields and information items may have been in the field, the field number is followed by "NA,NA" so that the subfields and information items do not have to be individually listed. 12,10.024,-2,NA; 6,18.016,NA,-AL3; 5,-14.024,NA,NA. If two records of the same type have the same IDC, then the IDC value can be suffixed by an indicator of the sequence of the affected record with the transaction. For example, if there were two Type-14 records with the same IDC (indicating that it is the same image – for instance one RAW and the other losslessly compressed as explained in Section 7.3.1 Information designation character / IDC), the second one within the transaction sequentially would be referenced as 7-2 for the IDC. A reference of 7 is equivalent to 7-1.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
12	*	1	1
Character Types	Special Characters	Format	Constraints
ANS	None	n/a	Comma-separated values

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord/biom:AssuranceLogEntry

NIEM Element: biom:AssuranceLogEventLocationText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-98: Information Assurance

**98.900\_4: Audit Log - Agent (AGT)**

**Description:**

Agent / AGT is the fourth information item. It is mandatory and shall contain information describing the entity (Agent) responsible for the EVT that affected the object identified by the IID. Up to 200 Unicode characters are allowed.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	200	1	1
Character Types	Special Characters	Format	Constraints
U	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord/biom:AssuranceLogEntry

NIEM Element: biom:AssuranceLogAgentText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**98.900\_5: Audit Log - Old Reference (OLD)**

**Description:**

Old value / OLD is the fifth information item. It is optional. When used, it shall contain the original value of the location in the transaction referenced in IID before it was affected by the event (EVT).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Dependent upon the format of IID	Value of datum prior to EVT referenced by IID	0	1
Character Types	Special Characters	Format	Constraints
Dependent upon the format of IID	None	n/a	Dependent upon the format of IID

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord/biom:AssuranceLogEntry

NIEM Element: biom:AssuranceLogEventOriginalValueText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-98: Information Assurance

**98.901: Audit Log - Audit Revision Number (ARN)**

**Description:**

This field is mandatory if Field 98.900: Audit log / ALF appears in the record. It contains a unique reference to the revision within the revision history. It is numeric, with up to 3 digits. Revision "x" may contain multiple events, each of which is recorded as a discrete modification (requiring a separate subfield in ARN). Thus, a different revision, with its corresponding log of modifications (recorded in ARN) requires a separate instance of Record Type-98.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ARN ≤999; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord

NIEM Element: biom:AssuranceAuditRevisionID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**98.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field 98.004.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationAssuranceRecord/biom:AssuranceOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.001: Record Header (LEN)**

**Description:**

The record header appears as the first field (xx.001) in each Record Type. It contains information particular to the encoding format chosen, in order to enable proper reading of the record. In Traditional encoding, this field contains the record length in bytes (including all information separators). In NIEM-conformant XML encoding, this field contains the RecordCategoryCode, which is the numeric representation of the Record Type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4; X = 1	T = 8; X = 2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageInformationRecord

NIEM Element: itl:Transaction

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.002: Information Designation Character (IDC)**

**Description:**

Each of the records present in a transaction, with the exception of the Type-1 record, shall include a field (xx.002) containing the information designation character / IDC. The value of the IDC shall be a sequentially assigned positive integer starting from zero and incremented by one up to a maximum of 99. IDC references are stated in Type-1 Field 1.003 Transaction content (CNT) and shall be used to relate information items in the CNT field of the Type-1 record to the other records in the transaction. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ IDC ≤ 99; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:ImageReferenceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.004: Source Agency (SRC)**

**Description:**

This is a mandatory field. See Section 7.6 of the ANSI/NIST-ITL 1-2011 Update: 2015 for details. The source agency name may be entered in Field 21.993: Source agency name / SAN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationIdentification/nc:IdentificationID

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.005: Biometric Capture Date (BCD)**

**Description:**

This ASCII field shall contain the date and time that the biometric sample was captured. The date and time shall appear as fifteen digits in the format YYYYMMDDhhmmssZ. The YYYY characters shall represent the year the image was captured; the MM characters shall be the tens and units values of the month; the DD characters shall be the tens and units values of the day in the month; the hh characters shall be the tens and units values of the hour of the day in 24-hour format; the mm characters shall be the tens and units values of the the DD characters shall be the tens and units values of the day in the month; the hh characters shall be the tens and units values of the hour of the day in 24-hour format; the mm characters shall be the tens and units values of the minute within the hour; the ss characters shall be the tens and units values of the second of the minute; and "Z" denotes Coordinated Universal Time, which is abbreviated UTC. For example, December 15, 2000 at 5 AM, 35 minutes and 30 seconds is expressed as 20001215053530Z. The complete date must be a legitimate date.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
N	None	YYYYMMDDhhmmssZ	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail

NIEM Element: biom:CaptureDate/nc:Date

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.100: CBEFF Header Version (HDV)**

**Description:**

This mandatory ASCII field shall be used to identify the version of CBEFF specification to which this record conforms. The format is two characters for major version number followed by two characters for minor version. The version of CBEFF in INCITS 398-2005 represented by the string '0101' (major version '01' and minor version '01').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 4, X = 3	4	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	HDV = 0101

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage

NIEM Element: biom:CBEFFVersionID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.101: Biometric Type (BTY)**

**Description:**

This ASCII field shall be used to identify the type of biometric technology. This mandatory field adopts the values presented in CBEFF with the addition of two leading zeros for future expansion. Table 127 of the ANSI/NIST-ITL 1-2011 Update: 2015 lists the current biometric type codes for modalities not covered in this standard with specific Record Types assigned to them.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
T = 8, X = 1	8	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	Value from Table 127 from the ANSI/NIST-ITL 1-2011 Update: 2015

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage

NIEM Element: biom:CBEFFCategoryCode

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.102: Biometric Data Quality (BDQ)**

**Description:**

This optional field is used to specify a quality score for the biometric data stored in the BDB in this record. The three information items identify a quality score and the algorithm used to create the quality score. This information is useful to enable the recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as necessary.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage

NIEM Element: biom:ImageQuality

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.102\_0: Biometric Data Quality - Subfields: Repeating sets of information items (BDQ\_0)**

**Description:**

This optional field is used to specify a quality score for the biometric data stored in the BDB in this record. The three information items identify a quality score and the algorithm used to create the quality score. This information is useful to enable the recipient of the quality score to differentiate between quality scores generated by different algorithms and adjust for any differences in processing or analysis as necessary.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	9
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage

NIEM Element: biom:ImageQuality

XML Min/Max: 0 / 9

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes



Type-99: CBEFF Biometric Data

**99.102\_1: Biometric Data Quality - Quality Value (QVU)**

**Description:**

This information item shall contain the integer image quality score between 0 and 100 (inclusive) assigned to the image data by a quality algorithm. Higher values indicate better quality. An entry of "255" shall indicate a failed attempt to calculate a quality score. An entry of "254" shall indicate that no attempt to calculate a quality score was made.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	0 ≤ QUV ≤ 100 or QVU = 254 or 255; integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageQuality

NIEM Element: biom:QualityValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.102\_2: Biometric Data Quality - Algorithm Vendor Identification (QAV)**

**Description:**

This information item shall specify the ID of the vendor of the quality algorithm used to calculate the quality score. This 4-digit hex value is assigned by IBIA and expressed as four ASCII characters. The IBIA shall maintain the Vendor Registry of CBEFF Biometric Organizations that will map the value in this field to a registered organization.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	0000 ≤ QAV ≤ FFFF

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageQuality

NIEM Element: biom:QualityAlgorithmVendorID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.102\_3: Biometric Data Quality - Algorithm Product Identification (QAP)**

**Description:**

This information item shall specify a numeric product code assigned by the vendor of the quality algorithm, which may be registered with the IBIA, but it is not required to be registered. It indicates which of the vendor's algorithms was used in the calculation of the quality score. This field contains the ASCII representation of the integer product code and should be within the range 1 to 65535.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	5	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ QAP ≤ 65535; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageQuality

NIEM Element: biom:QualityAlgorithmProductID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.103: BDB Format Owner (BFO)**

**Description:**

This mandatory ASCII field shall be used to denote the vendor, standards body, working group, or industry consortium that has defined the format of the biometric data (in the BDB). In a CBEFF structure the BDB Format Owner and Format Type, when used in combination, uniquely identify the specific format of the BDB content. The format and content of the BDB is "owned" by the CBEFF Client (see Section 6.1 of the CBEFF standard). This BDB format definition may be published (public) or unpublished (non-public). A CBEFF requirement is that format owners register with IBIA for an assigned identifier of the format owner. The number is guaranteed to be unique. Refer to the CBEFF standard, Section 6, "CBEFF Patrons and Clients," for registration information. The four hex digits assigned by IBIA shall be represented by a string of four ASCII characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage

NIEM Element: biom:CBEFFFormatOwnerID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.104: BDB Format Type (BFT)**

**Description:**

This mandatory ASCII field shall be used to identify the value assigned by the format owner to represent the specific BDB Format as specified by the format owner. This may be a nonstandard, unpublished data format or a data format that has been standardized by an industry group, consortium, or standards body. The registration of the Format Type value is recommended but not required. Refer to the CBEFF standard, Section 6, "CBEFF Patrons and Clients," for registration information. The four hex digits assigned by the format owner shall be represented by a string of four ASCII characters.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
4	4	1	1
Character Types	Special Characters	Format	Constraints
H	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage

NIEM Element: biom:CBEFFFormatCategoryID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.902: Annotated Information (ANN)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.902\_0: Annotated Information - Subfields: Repeating sets of information items (ANN\_0)**

**Description:**

This is an optional field, listing the operations performed on the original source in order to prepare it for inclusion in a biometric record type.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	Unlimited
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:ProcessAnnotation

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**99.902\_1: Annotated Information - Greenwich Mean Time (GMT)**

**Description:**

This information item is the Greenwich Mean Time (GMT) when the processing occurred. Some newer record types using this format refer to the data as UTC. The data is formatted as YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. This time is independent of the actual time zone where the time and date is recorded.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	1	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDhhmmssZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessUTCDate/nc:DateTime

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.902\_2: Annotated Information - Processing Algorithm Name / Version (NAV)**

**Description:**

This information item shall contain text identifying the name and version of the processing algorithm, application, procedure, or workstation

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	n/a	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessName

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.902\_3: Annotated Information - Algorithm Owner (OWN)**

**Description:**

This information item shall contain an unformatted text string of up to 64 characters with the contact information for the organization that owns the processing algorithm or latent workstation. Where there is no 'algorithm owner,' enter N/A.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	64	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessOwnerText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.902\_4: Annotated Information - Process Description (PRO)**

**Description:**

This information item field shall contain text describing a process or procedure applied to the sample in this Type-9 record.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:ProcessAnnotation

NIEM Element: biom:ProcessDescriptionText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.903: Device Unique Identifier (DUI)**

**Description:**

The DUI shall contain a string uniquely identifying the device or source of the data. This field shall be one of the following: a Host PC MAC address (identified by the first character "M"), or Host PC processor ID (identified by the first character "P").

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
13	16	0	1
Character Types	Special Characters	Format	Constraints
ANS	Any	n/a	First character = M or P

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.904: Make/Model/Serial Number (MMS)**

**Description:**

This is an optional field. The MMS contains the make, model and serial number for the capture device. It shall consist of three information items. Each information item shall be 1 to 50 characters. Any or all information items may indicate that information is unknown with the value "0".

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.904\_1: Make/Model/Serial Number - Make (MAK)**

**Description:**

The name of the manufacturer for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	1	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceMakeText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.904\_2: Make/Model/Serial Number - Model (MOD)**

**Description:**

The model number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceModelText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.904\_3: Make/Model/Serial Number - Serial Number (SER)**

**Description:**

The serial number for the capture device.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	50	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:CaptureDevice

NIEM Element: biom:DeviceSerialNumberText

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-99: CBEFF Biometric Data

**99.993: Source Agency Name (SAN)**

**Description:**

This is an optional field. It may contain up to 125 Unicode characters. It is the name of the agency referenced in Field xx.004: Source agency / SRC for record types 9-99.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	125	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:CaptureOrganization

NIEM Element: nc:OrganizationName

XML Min/Max: 0 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.995: Associated Context (ASC)**

**Description:**

Optional field xx.995 is contained in biometric data sample Record Types 10 and above that may have instances of Record Type-21 linked to it. Record Type-21 stores images and/or recordings that are not the actual source of the biometric data contained in another Record Type, but do show the context of the biometric data. An example would be a crime scene photograph showing the location of a glass that had latent prints on it. However, the close-up image of the latent prints could appear in a Type-20 record (since that is the image that the individual fingerprint images are derived from), with the segmented individual images appearing in Type-13 records. This field consists of a maximum of 255 repeating subfields, each of which contains two information items, as described below. There may be multiple instances of associated context records associated with a single biometric sample. Figure 2 illustrates relationships of the fields and information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.995\_0: Associated Context - Subfields: Repeating sets of information items (ASC\_0)**

**Description:**

Optional field xx.995 is contained in biometric data sample Record Types 10 and above that may have instances of Record Type-21 linked to it. Record Type-21 stores images and/or recordings that are not the actual source of the biometric data contained in another Record Type, but do show the context of the biometric data. An example would be a crime scene photograph showing the location of a glass that had latent prints on it. However, the close-up image of the latent prints could appear in a Type-20 record (since that is the image that the individual fingerprint images are derived from), with the segmented individual images appearing in Type-13 records. This field consists of a maximum of 255 repeating subfields, each of which contains two information items, as described below. There may be multiple instances of associated context records associated with a single biometric sample. Figure 2 illustrates relationships of the fields and information items.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:AssociatedContext

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

**99.995\_1: Associated Context - Associated Context Number (ACN)**

**Description:**

The first information item for the associated context number / ACN for a particular Record Type-21. This is mandatory for each Field xx.995, when the field is used. It contains an index to a particular instance of a Type-21 record in the transaction. This same index value appears in the appropriate instance of Record Type-21 as Field 21.021: Associated context number (ACN). The value of the ACN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	n/a	n/a	1 ≤ ACN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:AssociatedContext

NIEM Element: biom:ContextID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.995\_2: Associated Context - Associated Segment Position (ASP)**

**Description:**

The first information item in Field xx.995 is optional. It is the associated segment position / ASP. It contains the index to a particular set of segmentation coordinates of the associated context data. This same segmentation index value appears in Record Type-21 as the associated segment position / ASP in Field 21.016: Segments / SEG. There may be up to 99 segments listed in Field 21.016, but only the relevant segment is contained in Field xx.995.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ ASP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:AssociatedContext

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.996: Hash (HAS)**

**Description:**

This optional field shall contain the hash value of the data in Field 99.999: Biometric data block / DATA of this record, calculated using SHA-256.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
64	64	0	1
Character Types	Special Characters	Format	Constraints
H	n/a	n/a	

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:ImageHashValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.997: Source Representation (SOR)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.997\_0: Source Representation - Subfields: Repeating sets of information items (SOR\_0)**

**Description:**

This optional field refers to a representation in Record Type-20 with the same SRN from which the data in Field 13.999: Latent friction ridge image (DATA) was derived.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	1	255
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord

NIEM Element: biom:SourceInformation

XML Min/Max: 0 / 255

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: No      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.997\_1: Source Representation - Source Representation Number (SRN)**

**Description:**

This is the first information item and is mandatory for each Field xx.997. It contains an index to a particular instance of a Type-20 record in the transaction. This same index value appears in the appropriate instance of Record Type-20 as Field 20.021: Source representation number (SRN). The value of the SRN shall be a sequentially assigned a positive integer starting from one and incremented by one, not to exceed 255.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	3	1	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ SRN ≤ 255; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:SourceInformation

NIEM Element: biom:SourceID

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.997\_2: Source Representation - Reference Segment Position (RSP)**

**Description:**

The first information item is the reference segment position (RSP). This provides a unique index to a segmentation.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	2	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	1 ≤ RSP ≤ 99; positive integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:SourceInformation

NIEM Element: biom:ImageSegmentID

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.998: Geographic Sample Acquisition Location (GEO)**

**Description:**

This optional field contains the location where the biometric sample was acquired – not where it is stored.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
n/a	n/a	0	1
Character Types	Special Characters	Format	Constraints
n/a	n/a	n/a	n/a

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail

NIEM Element: biom:GeographicSampleAcquisitionLocation

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_01: Geographic Sample Acquisition Location - Universal Time Entry (UTE)**

**Description:**

The coordinated universal time (UTC) where the biometric sample was collected. This time is independent of the actual time zone where the time and date is recorded. The date is YYYYMMDDhhmmssZ, where the Z indicates the zone description of 0 hours. If sample collection time is unknown, set it to "00000000000000Z."

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
Encoding Specific	Encoding Specific	0	1
Character Types	Special Characters	Format	Constraints
AN	None	YYYYMMDDHHMMSSZ - for Traditional Encoding	Dependent upon encoding

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:CaptureUTCDateTime

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.998\_02: Geographic Sample Acquisition Location - Latitude Degree Value (LTD)**

**Description:**

The second information item is latitude degree value (LTD). This is a value that specifies the degree of latitude. The value shall be between -90 (inclusive) and +90 (inclusive). The degrees may be expressed as an integer (without a decimal) or a real number including decimals. If decimals are present, then minutes and seconds shall be empty. Examples: Buenos Aires, Argentina: -34 (with minutes LTM = 36) NIST, Gaithersburg, Maryland: 39.137627 (no LTM or LTS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	9	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign, Plus Sign	n/a	-90 ≤ LTD ≤ 90

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_03: Geographic Sample Acquisition Location - Latitude Minute Value (LTM)**

**Description:**

This information item is latitude minute value (LTM). This is a value that specifies a minute of a degree. The value shall be between 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall be empty. Thus, the allowed special character is a period. The minute value can be empty, even if the degree value is an integer. LTM and LGM are co-conditional, so they shall both be present if either is present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LTM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.998\_04: Geographic Sample Acquisition Location - Latitude Second Value (LTS)**

**Description:**

The fourth information item is the latitude second value (LTS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	None	n/a	0 ≤ LTS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLatitude

NIEM Element: nc:LatitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_05: Geographic Sample Acquisition Location - Longitude Degree Value (LGD)**

**Description:**

The fifth information item is the longitude degree value (LGD). It is a value that specifies the degree of a longitude. The value shall be between -180 (inclusive) and +180 (inclusive). If LTD is present, then LGD shall be present. The degrees may be expressed as whole numbers (without a decimal) or real numbers including decimals. If decimals are present, then minutes and seconds are empty. Examples: Buenos Aires, Argentina: -58 (with minutes LGM = 22), NIST, Gaithersburg, Maryland: -77.216032 (no LGM or LGS)

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal, Minus Sign, Plus Sign	n/a	-180 ≤ LGD ≤ 180

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeDegreeValue

XML Min/Max: 1 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes



Type-99: CBEFF Biometric Data

**99.998\_06: Geographic Sample Acquisition Location - Longitude Minute Value (LGM)**

**Description:**

The sixth information item is the longitude minute value (LGM). It is a value that specifies a minute of a degree. The value shall be from 0 (inclusive) to 60 (exclusive). The minute value may be expressed as an integer (without a decimal) or as a real number including decimals. If decimals are present then seconds shall not appear. The minute value is empty, even if the degree value is an integer. If LTM is present, then LGM shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Decimal	n/a	0 ≤ LGM < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeMinuteValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_07: Geographic Sample Acquisition Location - Longitude Second Value (LGS)**

**Description:**

The seventh information item is the longitude second value (LGS). This is a value that specifies a second of a minute. The integer shall be 0 (inclusive) to 60 (exclusive). The second value is empty, even if the minute value is an integer. If LTS is present, then LGS shall be present.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	None	n/a	0 ≤ LGS < 60

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate/nc:GeographicCoordinateLongitude

NIEM Element: nc:LongitudeSecondValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.998\_08: Geographic Sample Acquisition Location - Elevation (ELE)**

**Description:**

The eighth information item is elevation (ELE). It is expressed in meters. It is a numeric value. It is between -422 meters (Dead Sea) and 8848 meters (Mount Everest). Allowed special characters are the negative sign and the period.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
NS	Minus Sign,Period	n/a	-422.000 ≤ ELE ≤ 8848.000; real number

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/nc:Location3DGeospatialCoordinate

NIEM Element: nc:LocationElevation/nc:MeasureDecimalValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_09: Geographic Sample Acquisition Location - Geodetic Datum Code (GDC)**

**Description:**

The ninth information item is the geodetic datum code (GDC11). It is an alphanumeric value of 3 to 6 characters in length. This information item is used to indicate which coordinate system was used to represent the values in information items 2 through 7. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values. If no entry is made in this information item, then the basis for the values entered in the first eight information items shall be WGS84, the code for the World Geodetic Survey 1984 version - WGS 84 (G873). See look up codes for values.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
3	6	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	see Look Up Codes

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

nc:Location3DGeospatialCoordinateitl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation/

NIEM Element: biom:GeodeticDatumCoordinateSystemCode

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.998\_10: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Zone (GCM)**

**Description:**

It is an alphanumeric value of 2 to 3 characters. This is a one or two digit UTM zone number followed by the 8 degree latitudinal band designator (which is a single letter).

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
2	3	0	1
Character Types	Special Characters	Format	Constraints
AN	None	n/a	One or two digits followed by a single letter

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_11: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Easting (GCE)**

**Description:**

The eleventh information item is the geographic coordinate universal transverse Mercator easting (GCE). It is an integer of 1 to 6 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	6	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.998\_12: Geographic Sample Acquisition Location - Geographic Coordinate Universal Transverse Mercator Northing (GCN)**

**Description:**

The twelfth information item is the geographic coordinate universal transverse Mercator northing (GCN). It is an integer of 1 to 8 digits.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	8	0	1
Character Types	Special Characters	Format	Constraints
N	None	n/a	integer

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationUTMCoordinateValue

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_13: Geographic Sample Acquisition Location - Geographic Reference Text (GRT)**

**Description:**

It is a free form text describing a street address or other physical location (such as 'Corner of Washington and Madison, Geneva, NY').

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	150	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: nc:LocationDescriptionText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.998\_14: Geographic Sample Acquisition Location - Geographic Coordinate Other System Identifier (OSI)**

**Description:**

A fourteenth optional information item geographic coordinate other system identifier (OSI) allows for other coordinate systems. This information item specifies the system identifier. It is up to 10 characters in length. Examples are: • MGRS (Military Grid Reference System), • USNG (United States National Grid), • GARS (Global Area Reference System), • GEOREF (World Geographic Reference), • LANDMARK landmark (e.g. hydrant) and position relative to the landmark.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	10	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationSystemName

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

**99.998\_15: Geographic Sample Acquisition Location - Geographic Coordinate Other System Value (OCV)**

**Description:**

A fifteenth optional information item, is the geographic coordinate other system value (OCV). It shall only be present if OSI is present in the record. It can be up to 126 characters in length. If OSI is LANDMARK, OCV is free text and may be up to 126 characters. For details on the formatting of OCV for the other coordinate systems shown in OSI as examples, see <http://earth-info.nga.mil/GandG/coordsys/grids/referencesys.html>.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	126	0	1
Character Types	Special Characters	Format	Constraints
U	Any	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent:

itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage/biom:ImageCaptureDetail/biom:GeographicSampleAcquisitionLocation

NIEM Element: biom:GeographicLocationText

XML Min/Max: 0 / 1

DoD EBTS 1.2: No      DoD EBTS 2.0: No      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes

Type-99: CBEFF Biometric Data

**99.999: Biometric Data Block (DATA)**

**Description:**

This mandatory field contains the CBEFF Biometric Data Block (BDB). See Section 7.2 of ANSI/NIST ITL 1-2011 Update: 2015 for details.

Field Minimum	Field Maximum	Occurrence Minimum	Occurrence Maximum
1	*	1	1
Character Types	Special Characters	Format	Constraints
B	None	n/a	None

Source: ANSI/NIST ITL 1-2011 Update: 2015

Status: Active

XML Parent: itl:PackageCBEFFBiometricDataRecord/biom:CBEFFImage

NIEM Element: nc:Base64BinaryObject

XML Min/Max: 1 / 1

DoD EBTS 1.2: Yes      DoD EBTS 2.0: Yes      DoD EBTS 3.0: Yes      DoD EBTS 4.1: Yes