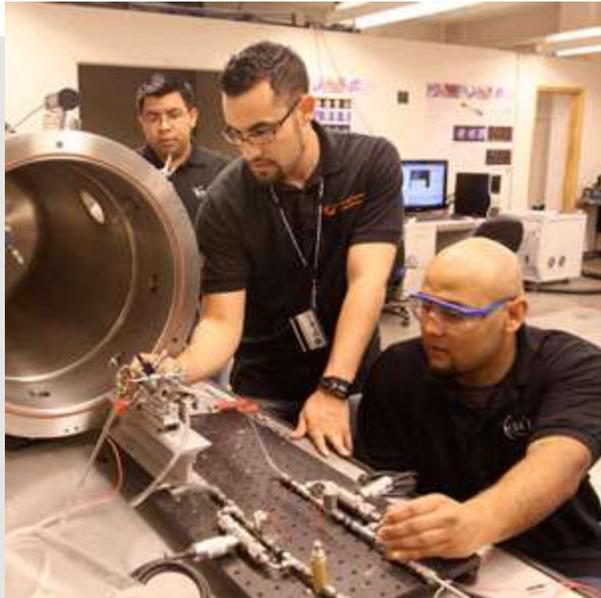**NF/1679 Disclosure of Invention of New Technology**

Who Should Report an NTR

Anyone whose research is funded by NASA, regardless of the mechanism, must report their technologies

NASA employees are required by NASA Policy Directive 2091.1B (link opens new browser window) to submit a disclosure for each invention resulting from their work as a government employee.

Anyone performing experimental, developmental, or research work under a NASA funding agreement – including contracts, grants, and cooperative agreements (e.g., CRADA, Space Act Agreement, SBIR) – is also required to submit new technology reports. Typically, partners working under these types of agreements are working in areas of new innovation, and these activities must be reported.

Contractors, grantees, and recipients of cooperative agreement or other NASA funding are subject to multiple statutes, regulations, and policies. For example, important requirements related to new technologies developed with NASA funding under a contract can be found in NASA Federal Acquisition Regulations (FAR) Supplement 1852.227(link opens new browser window:

- NASA FAR Supplement 1852.227-11, Small Businesses, Colleges, Universities, Non-Profit Organizations – "Subject Invention"/Patent Rights Clause
- NASA FAR Supplement 1852.227-70, Large Businesses –"Reportable Items"/New Technology Clause

In addition to submitting an NTR for each individual innovation, contractors, grantees, and funding recipients must also submit a New Technology Summary Report (NTSR) listing all new technology items developed during the reporting period.

NTSR reports are also submitted via the electronic New Technology Reporting system.

An NTR is a mechanism for capturing and broadening the reach of your ideas

New Technology Reports (NTRs) are a way for NASA to gather information about the *hundreds* of improvements that emerge from the scores of research and development projects occurring across the Agency each year.

An NTR collects basic information about the technology improvement:

- **Purpose:** Why was it developed? What problem were you solving?
- **Features:** What makes it unique or better than what was previously available?
- **Benefits:** What are the benefits/advantages of these features?
- **Uses:** What ideas do you have for how it could be used by NASA, other government agencies, and/or industry?
- **Development history:** If any key milestones have occurred, what were the dates of those achievements?

  Note: If the new technology is just an idea, these dates can be left blank.

- **Disclosure:** What information has been released publicly?

  Note: It's best to submit your NTR **before** revealing it outside the Agency

This site has been developed to answer your questions about the NTR process and to explain what should be reported. But if you aren't sure whether it is the right time to report an NTR, contact us. We're here to help.

It is never too early to submit your NTR!

The best time to submit an NTR for your technology is as soon as you realize that you have something new and before you disclose it publicly. It may feel premature to report an idea or innovation before you have been able to vet it or develop a prototype, but the earlier you report it, the easier it will be for NASA to protect it.

- **No need to wait until the end of the project:** Even if there is still more work to do, submit the NTR.
- **No need to have prototyped or proven the technology:** Even if it's just an idea, submit the NTR.
- **No need to achieve a certain technology readiness level (TRL):** Even if more development is needed, submit the NTR.
- **No need to wait until it has been used in a NASA project:** Even if that decision still needs to be made, submit the NTR.
- **No need to know whether it can be patented/copyrighted:** Submit the NTR (and other required paperwork) and let NASA's patent counsel figure that out.

Even if you or someone on your project team already disclosed the work, it is still important to submit the NTR. Although you may believe that the invention can no longer be patented due to publication or use bars, you should still report it. Your discovery may still be valuable to other U.S. government agencies, industry partners, or other NASA projects. And in the case of software, it may be protected under copyright regulations. — **Better late than never**.

Remember:

- The sooner we know about your new technology, the better
- It is never too early to submit an NTR
- Submit the NTR **before** disclosing the invention publicly
- Even if you or someone on your project team already disclosed the work, submit the NTR

Still have questions? Contact us — we're here to help

An NTR is the first step for NASA to make the most of your technology

The NTR is the first step in an important process of tracking and identifying novel applications for NASA's new technologies. Your improvements, modifications, innovations, and discoveries are valuable assets for NASA and the nation. Ensuring that your work has a chance to make a difference in the world begins with the NTR.

NTR submission is simple and quick using NASA's online system, (link opens new browser window) especially when you have all of the needed information handy. After you have filled out the online NTR form, NASA's technology transfer personnel review your submission to ensure it is complete. Approval of the NTR is the final step of the submission process.

In cases where NASA owns the rights to an innovation, tech transfer personnel work closely with patent counsel to evaluate the NTR and make decisions regarding patenting, release of software, and whether/how to pursue technology transfer. In cases where rights to the technology are elected or requested by an organization outside of NASA, the owner may be responsible for IP protection and commercialization.

The NTR Process

SUBMISSION PROCESS

Collect Key Information → Request an Account → Submit Your NTR → NTR Approval

WHAT HAPPENS NEXT

Evaluation & Protection → Technology Transfer

More about these processes is provided in this section, but if you have any questions, feel free to contact us — we're here to help.

4

Collect Key Information

Keeping a lab notebook is the best way to make reporting your NTR submissions fast and easy

NASA's online system has been streamlined to make submitting NTRs as easy as possible. All you need is very basic information about your new technology.

Here are some tips to help make the process as fast and easy as possible:

- **Use a lab notebook:** Keeping a record of your daily activities makes it easier to recognize when you have a reportable technology.

  Note: Submit the NTR **as soon as** you recognize that you have a new technology.

- **Record key dates:** As you develop a new technology or improvement, track your progress—from sketch through model/beta through testing/alpha—to include these details in the NTR.

  Note: You can supplement a previously submitted NTR as development progresses.

- **Keep track of public disclosures:** If you do publicly disclose the technology, be sure to note the date and location and any other relevant details to include in the NTR.

  Note: NASA innovators should always report their technology before sharing it publicly. But even if it has already been disclosed, it is still important to report the NTR. (link opens new browser window

These simple activities not only make it easy and fast to report your technology but also provide all the details that patent counsel may need later in the process.

If you have any questions contact us — we're here to help

Request an Account

If you already have an account, you can sign in here.

If you would like to register your account under a NASA email address, it will not be necessary for you to request an account using the form below. Please visit the Login page and click the "NASA IdMAX Authenticate" button, and your account will be created immediately. If you have any questions, please contact the Help Desk at (757) 865-2233 or ntts-support@lists.nasa.gov.

If you would like to register your account under a non-NASA email address, please complete and submit the form below. This is a simple and quick process. After you have submitted the form, NTTS will then send you a confirmation that your account has been established. You are then ready to Login and submit your NTR.

If you need help with setting up or accessing your account please contact the NTTS Help Desk at (757) 865-2233

Required information for Account

First Name:

Last Name:

Current Email Address:

For Non-NASA account requests, please use your business/university e-mail address that is associated with your contract, grant, or agreement with NASA.

User Name:

Account Type: Select One

Company: Select this account type if you are a contractor, grantee, or partner that is responsible for submitting New Technology Summary Reports under your contract, grant or agreement with NASA.

User: All other users without a NASA e-mail address should select this account type.

NASA Funding Agreement Number:

NASA Funding Agreement Number is the identification number associated with your contract, grant, cooperative agreement or Space Act Agreement.

Phone Number:

Format: (xxx) xxx-xxxx

Please enter the numbers and letters in the box for security:

f1245

Refresh Code

Submit Your NTR

It takes only about 30 minutes to get started

Once you have an account and are ready to submit an NTR, login and complete the fields in as much detail as you can. Completing the form takes only 30 minutes or so.

The list below highlights the key information that should be reported via the NTR.

✓ Description of the innovation

✓ Explanation of why the innovation was developed

✓ Unique or novel features

✓ Key benefits

✓ Potential commercial applications

✓ Developmental milestones

Log in to the New Technology Reporting System (NTRs & NTSRs)

Log in here to report your technology or NTSR:

If your account is registered under a non-NASA email address, log in here using your e-NTR account credentials:

Username: [   ]   Forgot Password
                          Request Account
Password: [   ]   Help Desk
                          NF1679 PDF
            [Sign In]   NF1679 Word

If you need to create an account (or have an existing account) under a NASA email address, log in here using your NASA IdMAX credentials:

If you are a NASA IdMAX user, please click the following "NASA IdMAX Authenticate" button to authenticate with NASA Single-Sign-On.

[NASA IdMAX Authenticate] **What to expect when logging in through IdMAX**

NASA Information Technology Security Policy requires that any account that has been inactive for 60 days or longer be locked. If your account becomes locked, contact the Help Desk at ntts-support@lists.nasa.gov or 757-865-2233 to regain access to it.

Note that you will be logged off this system after 15 minutes of inactivity. An autosave of open web pages is occurring every five minutes.

NASA Form 1679 (NF1679) - Disclosure of Invention and New Technology (Including Software): (Use when a new technology/invention is developed). You may either log in above and fill out the electronic version of the NF1679 or download the PDF or Word version to be sent via email to your NASA center.

What qualifies as new technologies and innovations is very broad. They include any invention, discovery, improvement, or innovation that was either conceived or first actually reduced to practice in the performance of NASA work. This includes any new and useful processes, machines, manufacture, or composition of matter; or any new and useful improvement in existing processes, machines, manufacture, or compositions of matter. Also included are new computer programs, and

improvements to, or new applications of, existing computer programs, whether or not copyrightable. A representative list of new technologies and innovations includes, but is not limited to: new or improved techniques, products, devices, materials, methods, processes, chemical compositions, systems, machines apparatuses, articles, fixtures, tools, or software.

Interim New Technology Summary Report (NTSR): a listing (every 12 months from the start of the Contract) of all new technologies (inventions and/or innovations) developed during the reporting period, or certification that there were none.

Final New Technology Summary Report (NTSR): a listing (prior to the Contract closeout) of all new technologies (inventions and/or innovations) developed during performance of the Contract, or certification that there were none.

NASA prefers that contractors/grantees/recipients use the NASA NTSR form, by way of the New Technology Reporting System when submitting an NTSR.

PLEASE NOTE: This is a U.S. Government Computer System. If not authorized to access this system, please disconnect. By continuing, you consent to your keystrokes and data content being monitored. If you do not have authorization you are warned to disconnect at once. Actual or attempted use, access, communication, or examination by unauthorized persons is a criminal violation of Title 18, United States Code, Section 1030.

Paperwork Reduction Act Statement: This information collection meets the requirements of 44 U.S.C. § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget control number. The OMB control number for this information collection is 2700-0052 and it expires on mm/dd/yyyy. We estimate that it will take about forty-five (45) minutes to read the instructions, gather the facts, answer the questions, and transmit. You may send comments on our time estimate above to: (NASA will insert a POC.)

General Information

New Technologies are defined as any invention, discovery, improvement, or innovation whether or not patentable, either conceived or first actually reduced to practice in performance of NASA work. This includes, but is not limited to, new processes, machines, manufactures, and compositions of matter, and improvements to, or new applications of, existing processes, machines, manufactures, and compositions of matter. New Technologies also include new computer programs, and improvements to, or new applications of, existing computer programs.

(If you are a NASA Civil Servant, choose the Center at which you work. If you are a Contractor, choose the Center at which your Contracting Officer's Representative(COR) works. If you are a Grantee, choose the Center at which your Grant Technical Officer works.)

Which NASA Center does this New Technology Report belong to? (required)   Select a NASA Center ▼

Company Tech Rep. Name:

NASA COR Name:

NTR Title (required)   Title Elected by Waiver #:

Internal Docket No./Contractor Tracking No.

If the entity at which the submitter is employed uses an internal identification code for tracking technologies, it would be entered here.

Funding Mission Directorate (required)

+ Add Funding Mission Directorate (For more information on NASA Mission Directorates click here)

Funding Mission Directorate	Description	
No records found.		

Total Records: 0

WBS Information

+ Add WBS Information

FY	WBS Number	Program Name	Project Name	
No records found.				

Total Records: 0

Innovators (required)

(Includes: Employer, Address, and Employer Status)
Please Note: The Innovators will be listed in the disclosure to NASA in the same order as entered below.

+ Add Innovator

Order	Last Name	First Name	Email	Contract Number	
No records found.					

Total Records: 0

Origin

☐ In House ☐ Grant ☐ Subcontract ☐ Other ☐ Joint ☐ Prime Contract ☐ Multiple Contractor

Additional Documentation

Include copies or list below any pertinent documentation which aids in the understanding or application of the innovation (e.g., articles, contractor reports, engineering specs, assembly/manufacturing drawings, parts or ingredients list, operating manuals, test data, assembly/manufacturing procedures, etc.).

+ Add Documentation

Title	Page Number	Date	File Name	
No records found.				

Total Records: 0

| General Information | Description | Commercialization | Technology Readiness / Software | Development History |

Brief Abstract

(A general description of the Innovation which describes it's capabilities, but does not reveal details that would enable duplication or imitation of the invention.)

Description of the Problem or Objective That Motivated the Innovation's Development

(Enter as appropriate: A.- General description of problem/objective; B.- Key or unique problem characteristics; C.-Prior art, i.e., prior techniques, methods, materials, or devices performing function of the innovation, or previous means for performing function of software; and D.- Disadvantages or limitations of prior art.)

Technically Complete and Easily Understandable Description of Innovation Developed to Solve The Problem or Meet The Objective

(Enter as appropriate; existing reports, if available, may form a part of the disclosure, and reference thereto can be made to complete this description: A. Purpose and description of innovation/software; B. Identification of component parts or steps, and explanation of mode of operation of innovation/software preferably referring to drawings, sketches, photographs, graphs, flow charts, and/or parts or ingredient lists illustrating the components; C. Functional operation; D. Alternate embodiments of the innovation/software; E. Supportive theory; F. Engineering specifications; G. Peripheral equipment; and H. Maintenance, reliability, safety factors.)

Unique or Novel Features

(Enter as appropriate: A.- novel or unique features; B.- Advantages of innovation/software; C.- Development or new conceptual problems; D.- Test data and source of error; E.-Analysis of capabilities; and F. - For software, any re-use or re-engineering of existing code, use of shareware, or use of code owned by a non-federal entity.)

11

New Technology Report

🏠 Home | ❌ Logout | Change Password | ⓘ Help
[User Name: snaus | Account Type: user | Email: stephan.a.naus@nasa.gov]

⊙ Auto Save in 3 minute(s)

💾 Save

NTR Report Date: **e-NTR#:** 1405423201

| General Information | Description | Commercialization | Technology Readiness / Software | Development History |

Potential Commercial Applications

Speculation regarding potential commercial applications and points of contact. *(Including names of companies producing or using similar products.)*

💾 Save

Form Approved O.M.B. NO. 2700-0009

| General Information | Description | Commercialization | Technology Readiness / Software | Development History |

Publications

PREVIOUS OR CONTEMPLATED PUBLICATION OR PUBLIC DISCLOSURE INCLUDING DATES

Provide as applicable: A. – Type of publication or disclosure, e.g., report, conference or seminar, oral presentation; B. – Disclosure by NASA or Contractor/Grantee; and C. – Title, volume no., page no., and date of publication.

+ Add Publication Information

Type	Title	Volume	Publication/Conference Date	
No records found.				

Total Records: 0

Degree of Technical Significance

(Which best expresses the degree of technological significance of this innovation?)

Degree of Technical Significance   **State of Development**

☐ Concept Only   ☐ Design   ☐ Prototype

[Please Select One ▼]   ☐ Modification   ☐ Production Model

☐ Used in Current Work

Patent Status

Enter information on any prior patents or patent applications disclosing or related to this new technology/innovation.

+ Add Patent Status

Patent Number	Issue Date	App Serial Num	App File Date	
No records found.				

Total Records: 0

Development Timeframe

Indicate the dates or the approximate time period during which this innovation was developed. *(i.e., conceived, constructed, tested, etc.)*

Questions for Software Only

Software innovations include computer programs as well as underlying processes and methods implemented by computer programs, including design details, algorithms, formulae, flow charts, and related material that would enable a particular computer program, or a functional equivalent thereof, to be produced or created. Software innovations do not include computer databases or software documentation. However, software documentation that discloses the type of information described above should be submitted with any disclosure of the related software innovation.

Please read the following carefully:

☐ **Software Application**

(If this is a software related invention, check the box and complete the questions below.)

New Technology Report

Home | Logout | Change Password | H
[User Name: snaus | Account Type: user | Email: stephan.a.naus@nasa.g

Auto Save in 1 minute(s)

Save

NTR Report Date: _____   e-NTR#: 1405423201

| General Information | Description | Commercialization | Technology Readiness / Software | Development History |

Development History, Stage of Development

(Month, Year, Location, and Identify Persons or Records Supporting Facts)

NOTE: *For Inventions that have not completed all stages involved in the Development History section please enter "N/A" in the supporting facts field for stages not yet completed.*

First disclosure to others.

Month: Year: Location:

[Month ▼]   [   ]   [   ]

IDENTIFY SUPPORTING WITNESSES (NASA in-house only):

[   ]

First sketch, drawing, logic chart or code.

Month: Year: Location:

[Month ▼]   [   ]   [   ]

IDENTIFY SUPPORTING WITNESSES (NASA in-house only):

[   ]

First written description.

Month: Year: Location:

[Month ▼]   [   ]   [   ]

IDENTIFY SUPPORTING WITNESSES (NASA in-house only):

IDENTIFY SUPPORTING WITNESSES (NASA in-house only):

First successful operational test (invention) or alpha version (software).

Month: Year: Location:

[Month ▼]   [   ]   [   ]

IDENTIFY SUPPORTING WITNESSES (NASA in-house only):

Contribution of innovators.

Indicate any past, present, or contemplated government use of the innovation, or any other comments you wish to make.

## Thank you.
NASA will evaluate the NTR submitted. Information on the evaluation process is provided below.

NASA evaluates NTRs according to several factors

For NTRs covering innovations developed by civil servants, as well as those for which the contractor or grantee has decided not to pursue patent protection and commercialization, NASA conducts an evaluation process to determine the potential for IP coverage and commercialization. In deciding what happens to an NTR, we evaluate the technology according to three factors:

- Technology readiness
- Market attractiveness
- Intellectual property (IP) strength
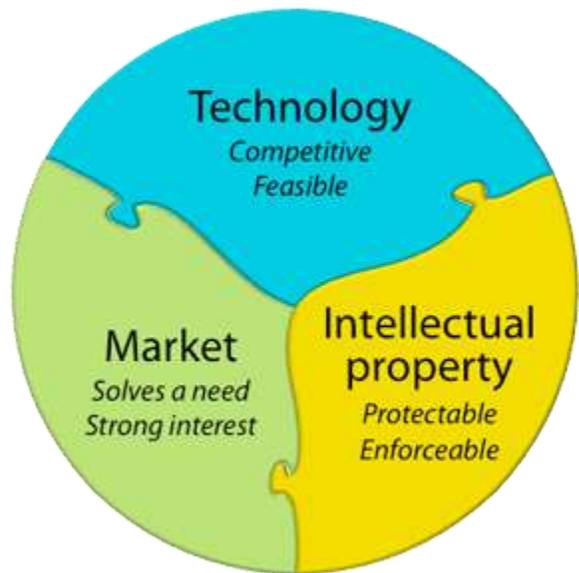
We rely on our technical expertise and market research to determine:

- How does the technology compare to what is currently available?
- Who could use it and how much do they need it?
- Is it ready to be used now and is the innovator available to assist with the transfer?
- Can it be protected?

Depending on the answers to these questions, your NTR may be:

- Prepared for pursuit of patent protection in the United States and/or foreign countries
- Submitted for an award from NASA or an external organization
- Published in *NASA Tech Briefs (link opens new browser window)*
- Listed in NASA's technology transfer portal (link opens new browser window)
- Publicized on your center's technology transfer site
- Actively marketed to potential licensees or collaborators/partners
- Placed "on hold" to monitor the market's readiness for the technology or to wait until further development of the technology has occurred

Innovators support the tech transfer process

Innovators can provide valuable input in helping to identify commercial applications and potential partners, since you are very familiar with the current state-of-the-art and key players in industry. As a result, it is very important for you to complete the sections in the NTR related to the potential commercial markets. In most cases, technology transfer professionals will contact the innovators to discuss their NTRs. You may also be asked to participate in some of the activities highlighted above—for example, reviewing an award application or marketing materials.

More about IP Protection

In most cases, intellectual property protection comes in the form of a patent. Software might be patentable or it

could be eligible for copyright. If NASA decides to pursue patent or copyright protection for your technology, NASA's patent attorneys will work with you to protect the intellectual property.

What is a patent?
A patent for an invention is the grant of a property right to the owner. The owner can then selectively give that right to others via a license, usually in exchange for financial payments such as up-front fees and/or royalties. Most companies are not interested in a technology if it is not patented, since other companies can easily copy it and use it themselves, taking away the competitive advantage.

Can anything be patented?
In order for a utility patent to be granted, the invention must be new, non-obvious (not an obvious difference from the prior art), and have a useful purpose.

Does NASA patent everything it can?
Because it costs thousands of dollars to patent a new technology, NASA is selective in deciding what to patent. If the Agency expects there to be a financial return or some other benefit that can be achieved only by patenting the technology, then NASA will apply for a patent.

Can software be patented?
Yes, some software may be protectable by patent, but only if it forms an integral and necessary part of a qualifying machine, manufacture, or process. Underlying concepts in a computer program may be patentable, but normally the code is only protected by copyright.

What is copyright?
Copyright gives the author of an original work the exclusive right to make copies, publish, distribute, and adapt it.

Can NASA software be copyrighted?
Copyright protection is not available in the U.S. for software developed **solely** by federal government employees in the scope of their employment, although foreign copyright may be available. Copyright protection may be available in the U.S. for software that is co-developed with federal government employee(s) along with non-federal government employee(s). NASA can also obtain copyright in software from third

Technology transfer can take many different forms

Depending on the findings of the NTR evaluation, your technology may be selected to continue through the technology transfer process. Within technology transfer, there are many different paths. Your technology might be suitable for applications within industry, so the technology transfer personnel will seek potential licensees. Or your innovation might be a good candidate for collaborative R&D. Regardless of the type of activity pursued, NASA technology transfer processionals always work to ensure arrangements that are beneficial for NASA, the inventor, and the partner.

As with the R&D that leads up to the new technology, the road for the NTR can be a twisting route with several forks and unexpected turns. It may go quickly or it may take a long time, and you are always welcome to contact us to find out the status of your NTR.

The Technology Transfer Process

The steps taken as part of technology transfer vary depending on the type of technology and the market where it is most likely to be applied. However, there are several tools that technology transfer personnel commonly use to let others know about a technology that is available for license or an opportunity for partnership:

- Prepare and distribute online and/or print materials to publicize your innovation
- Contact companies or other organizations that may be interested in your innovation
- Facilitate interactions with interested, qualified parties
- If appropriate, arrange for your innovation to be presented at trade shows, conferences, and workshops

Throughout the technology transfer process, you will have the opportunity to review communications materials, such as articles in *NASA Tech Briefs*, brochures, online technology listings, etc. If you have any questions along the way, please do not hesitate to contact the tech transfer personnel at your center.

Types of Agreements

Technology transfer may be achieved through various agreement mechanisms, including licenses (most of which result in royalty revenue), partnership agreements, and software usage agreements.

NASA works hard to ensure that any agreements put in place protect NASA's – and your – interest in the technology while enabling partners to effectively bring a technology to market, ensure that the American public benefits from the R&D funded by their tax dollars. Available agreement types are outlined below.

Licenses

Three types of license agreements are available:

- Nonexclusive
- Exclusive
- Evaluation/Research

Partnership Agreements

- Space Act Agreement (SAA)
- Cooperative Research and Development Agreement (CRADA)

Software Release

Requests to use NASA software can be made by external parties or the software's developers. Before software can be released to these parties via the software release authority, an NTR must generally be submitted. The types of software release are summarized below.

- General public release
- Open source release
- US and foreign release
- General US release only
- US government purpose release