



Homeland
Security

National Fire Information Council (NFIC) Training

NFIRS Web Reporting Development

Craig Prall

Aerient, LLC

NFIRS System Developer



Homeland
Security

Why a New Reporting System?

Rationale for New Reporting Framework

- Replacing an aging, expensive, proprietary system based on Actuate with newer, cheaper open source tools
 - Licensing costs for Actuate were prohibitive
 - Adding new reports was difficult and error prone
- Current closed architecture was not flexible
 - Portions of the current reports and SQL behind the reports was tailored to the capabilities of Actuate rather than streamlined for NFIRS
 - Open source report generator (JasperReports) is embedded in an application that is much more “NFIRS-aware”
- Moving to new, faster hardware to which the current licenses will not transfer



Live Demo

- There are screenshots of this demo in the appendix of this handout



Homeland
Security

Future Efforts (1 of 5)

(In roughly time-order)

- Retrieve, change, and re-submit previous reports
 - Will be live when the system is released
- **Online Analytical Processing (OLAP) Cubes**
 - Currently, the reporting database is almost a mirror of production, but going forward, it will be optimized on the server side for reporting
 - Data cubes (dimensions)
 - Better organization for reporting
 - Data ordered by day, month, quarter, year
 - FDID, groups and states
 - Develop pivot tables and “measures” for commonly derived data
 - Pre-compute items such as day of week, individual arrival (elapsed) time, average arrival times, incident key fields (as an aggregate)



Homeland
Security

Future Efforts (2 of 5)

- Many more module fields available for filters
 - Almost all module fields available for most reports such as zip codes, street names, personnel names, person involved names, shift, alarms, etc.
 - Any module field can be made available as a filter so long as it doesn't otherwise invalidate the report (e.g., Won't be able to select mutual aid types for the Mutual Aid Incidents report)
 - Additional "fields" such as last-saved date and created-by name



Future Efforts (3 of 5)

- More options for the filter fields
 - OR-ing allows for multiple text line input (for making lists of names, streets, zip codes, coded-fields, etc.)
 - “Wildcarding” of text fields (starts with, ends with and contains)
 - Case sensitive and case insensitive searches
 - AND-ing and OR-ing of most filters as well as NOT
- Saving of partial templates of reports and report filters
- Textual explanation of the ad-hoc filters and groups as they are being constructed



Future Efforts (4 of 5)

- New reports (partial list):
 - Fire Dept's identified by vendor software used.
 - Wildland fire report summarizing acres burned from both fire and wildland modules.
 - Reporting on same FDID activity over multiple years. (Essentially a “same-store sales” report, but for fire dept's - compares activity to the same month of previous year to indicate trends.)
 - Statewide reporting status level (which is currently available only at the US level) to show amount of data reported and released in the national DB by FDID
 - Various data quality reports (e.g., large dollar loss, response time)



Future Efforts (5 of 5)

- Exporting/Sharing report templates & filters
 - Initial implementation may be a simple export to file/import from file scheme
 - Online sharing with library of templates and filters published by NFIRS program office, state program office and on down to a dept
- Scheduled reports
 - Reports can be scheduled to run daily, weekly, monthly and yearly with parameterized date fields for from/to dates.
 - Parameterization of other fields such as a list of FDIDs or groups (or lists of lists)



And Finally ...

- We would like to hear from you concerning:
 - Reports that you and your departments need that are currently not available to you
 - Which fields you and your departments need most (or other data in the national DB you would like to be able to select incidents on)
 - Any other concerns regarding the new reporting system
- Send email to: Dave Marron at david.marron@associates.dhs.gov



Homeland
Security

Appendix



Homeland
Security

Main Reporting Page

- Everything in one place
 - Available reports
 - Pending reports
 - Completed reports
- Context-sensitive help
- Sample reports

DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY
U.S. FIRE ADMINISTRATION

NFIRS Home | Latest News | USFA | Site Index | Contact

National Fire Incident Reporting System

System Information | Documentation | Training | Support Center | Web-based Tools | User Section | Vendor Section

Summary Reports Tool

NFIRS Summary Output Reports Tool

Help Log out
Welcome Craig Prall

NFIRS Home Page
Web-Based Reports Login

REPORT TYPES

Instructions: Select a report type below to run your report. Roll over each report type to view its description. Click on **Sample** to view a sample report.

My Favorites

- Incident Listing
- Incident Counts

Quick Reports

- Incident Reports
- Management Reports
- Casualty Reports

PENDING REPORTS

There are 1 reports pending

1. IncidentListing - Started on 11/26/2007 08:21 pm (Craig Prall)
[View Details](#)

COMPLETED REPORTS

My Group Reports My Reports

- Tally - 11/26/2007 05:37 pm
Requested By: Craig Prall
File Size: 47.0 kb
- IncidentCounts - 11/26/2007 03:13 pm
Requested By: Craig Prall
File Size: 38.0 kb

View Report
Delete Report
Save As ... Save Report

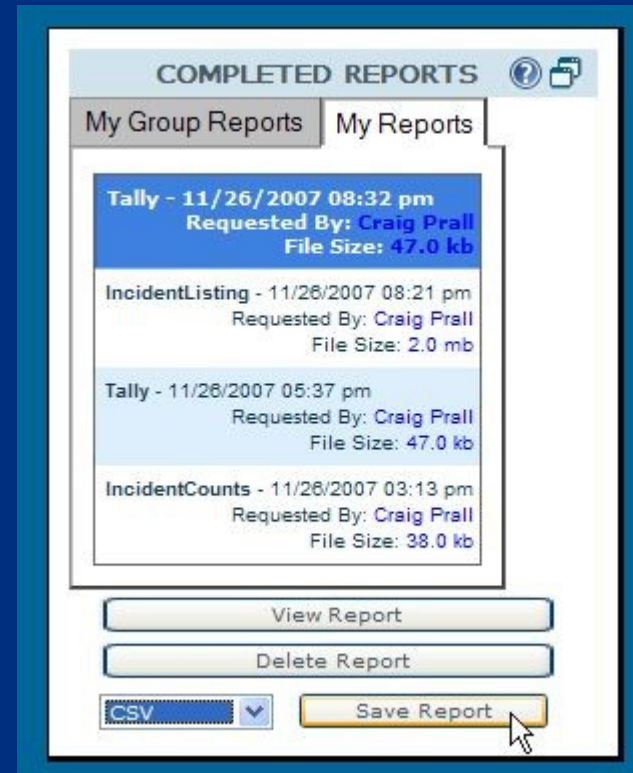
Local intranet



Homeland
Security

Completed Report Panel

- List Reports That Have Completed Processing
- View Report
- Delete Report
- Save Report
 - PDF
 - CSV
 - XLS
 - XML
 - RTF



Basic Filters Panel

- Allows typical filters to be entered quickly
- Reports can be named

The screenshot displays the 'Basic Filters Panel' interface. It features a 'Management Reports' section with 'Incidents By Time Series' and 'Casualty Reports'. The 'COMPLETED REPORTS' section includes a 'REPORT CRITERIA' panel for 'INCIDENTS BY TIME SERIES' with various filter options like Date Range, Start/End Dates, Time Series, Status, Version, and Release. A 'Web Page Dialog' is open, showing a 'Report Name' field with the text 'eries 2003 10011 and 10012' and 'Submit Request' and 'Cancel' buttons. Below the dialog, a 'Group Selection' panel lists several groups with checkboxes, including 'WALKERSVILLE FIRE DEPT : 10011' and 'Great Falls ANG : 10012' which are checked. 'Submit Request' and 'Cancel' buttons are also visible at the bottom of the main panel.



Homeland
Security

Pending Reports Panel

- View status of submitted reports
- Cancel reports in progress (future)

The screenshot shows a web application interface with a 'Pending Reports' panel. The panel displays a list of pending reports, with one report selected: 'IncidentsByTimeSeries - Started on 11/26/2007 09:32 pm (Craig Prall)'. A 'Web Page Dialog' window is open, displaying details for this report. The dialog contains the following information:

Pending Report Name:	Incidents By Time Series Report
Submitted By:	Craig Prall
Submission Date:	11/26/2007 09:32 pm
Report Status:	Submitted
System Assigned Request ID:	56
Additional User Detail:	
User(s) State:	TR
User(s) Group:	762

The dialog also features a 'Cancel Report Request' button and a 'Close' button.



Ad-Hoc Filters Page

- Additional filters
 - Going to be many more filters in the future (more complex)
- Filters and groups are “live”
 - Clicking on one shows its values in the other areas

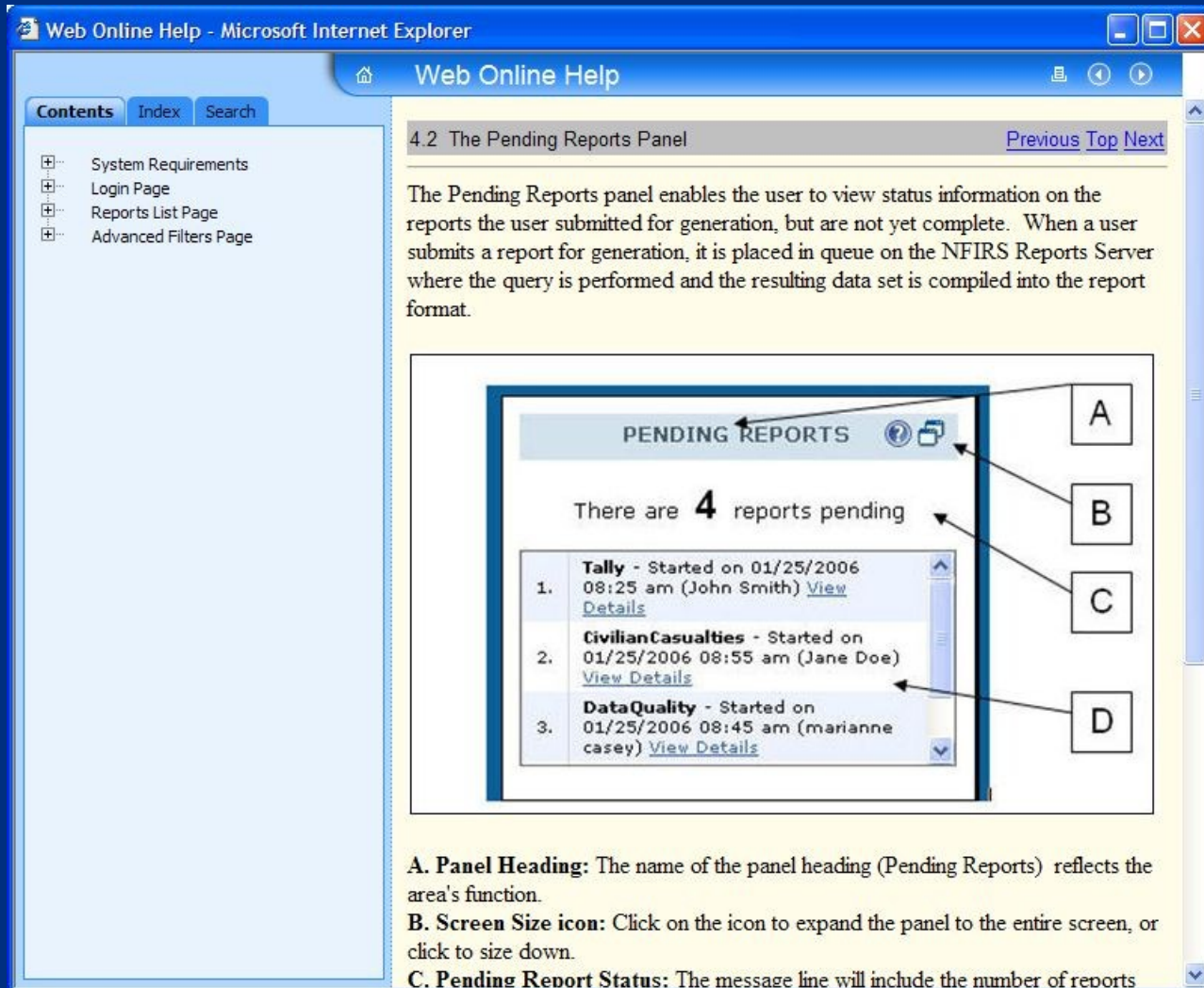
The screenshot shows the 'Report Criteria' interface for 'Tally'. It includes several sections:

- Date Range:** A dropdown menu.
- Start Date:** 10/31/2003 (with a calendar icon).
- End Date:** 12/31/2003 (with a calendar icon).
- Status:** Valid (dropdown).
- Version:** All (dropdown).
- Release:** All (dropdown).
- Select Coded Field:** A button with a help icon.
- NFIRS Module:** Basic Module (dropdown).
- Coded Field:** Incident Type (dropdown).
- NFIRS Groups:** A list of groups with checkboxes:
 - SDS Test FD : SDS01
 - WALKERSVILLE FIRE DEPT : 10011
 - Great Falls ANG : 10012
 - Tutorial Fire Dept. : 1111
 - Tutorial Fire Dept. : 3232
 - FDNY1 Training Area
 - Florida Training
- Filters:**
 - Define Search Criteria Item:** Select Data Field: Fire: Area of Origin. Choose Value or Range of Values: 20 - Function area, other; 21 - Bedroom - < 5 persons; included are jail; 22 - Bedroom - 5+ persons; including barrack/; 23 - Bar area, beverage service area, cafeteria; 24 - Cooking area, kitchen. Buttons: Add Search Criteria Item to List, Update Search Criteria Item.
 - Define Relationship between Search Criteria Items:** Fire: Area of Origin Including... AND (match all). Buttons: Create Group, Update Group, Remove Item.
 - Define Relationship between Search Criteria Groups:** Incident Types, Inc Num Set, Origin. AND (match all). Buttons: Remove Group, View Details.
 - Filter Options:** Save Filter as Favorite (dropdown), Save Filter.
- Buttons:** Submit Report Request, Cancel.
- Footer:** ▲ less options ▲



Homeland
Security

Context-Sensitive Help



Web Online Help - Microsoft Internet Explorer


Web Online Help

Contents Index Search

- System Requirements
- Login Page
- Reports List Page
- Advanced Filters Page

4.2 The Pending Reports Panel [Previous](#) [Top](#) [Next](#)

The Pending Reports panel enables the user to view status information on the reports the user submitted for generation, but are not yet complete. When a user submits a report for generation, it is placed in queue on the NFIRS Reports Server where the query is performed and the resulting data set is compiled into the report format.



A. Panel Heading: The name of the panel heading (Pending Reports) reflects the area's function.

B. Screen Size icon: Click on the icon to expand the panel to the entire screen, or click to size down.

C. Pending Report Status: The message line will include the number of reports

PENDING REPORTS	
There are 4 reports pending	
1.	Tally - Started on 01/25/2006 08:25 am (John Smith) View Details
2.	Civilian Casualties - Started on 01/25/2006 08:55 am (Jane Doe) View Details
3.	DataQuality - Started on 01/25/2006 08:45 am (marianne casey) View Details

