



## What's New in FEMIS v1.5

FEMIS v1.5 became available for installation on April 26, 2002. FEMIS v1.5 provides additional functionality, increased speed due to updates of the internal hazard analysis architecture, and corrections of known problems. The FEMIS v1.5 release focused on user feedback and application stability.

Some of the changes in FEMIS v1.5 are highlighted in the following sections.

## Restructured Hazard Analysis

Restructuring hazard analysis makes the FEMIS software easier to use for the hazard analyst and will make integration of additional models easier in the future. FEMIS now treats an entire analysis series as a single unit. The parts that make up the hazard analysis series are the D2PC case, Threat Area, Risk Area, Protective Action Recommendations (PARs), and Protective Action Decisions (PADs).

Restructure of the hazard analysis capabilities for CSEPP include the following:

- Threat Areas, Risk Areas, PARs, and PADs automatically link to a specific D2PC case.
- Users have the capability to save, retrieve, or delete all the parts with a single action.
- The hazard analysis series is packaged as a single unit, which allows users to analyze and save “What if” scenarios.
- All parts of the hazard analysis can be made current operational in a single step.
- Keeping track of revisions to both the D2PC case and its associated information is more straightforward. Changes to the D2PC case inputs create a new case with a new case number and a revision number of 1. Changes to the information associated with the D2PC case create a new revision of the D2PC case where the case number stays the same, but a new revision number is added.
- Historical information can be retrieved as a single set of information.

Restructuring has led to grouping analysis into two parts: 1) hazard analysis (D2PC, Threat Area, and Risk Area) and 2) protective action recommendations and decisions (PARs and PADs). This grouping simplifies the set of privileges and database locks since the individual privileges and locks are combined into the two groups.

Restructuring hazard analysis also improves General Hazard capabilities. When a Threat Area has been created for a non-CSEPP hazard (such as flooding or wildfires), a complete, linked unit of hazard analysis and protective actions can be provided.

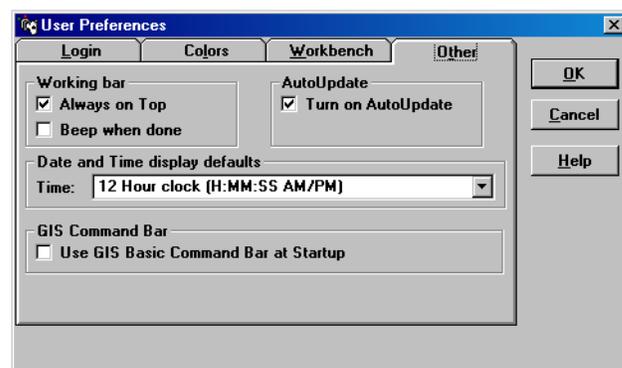
## AutoUpdate

In v1.5, a feature called AutoUpdate is being introduced on the Met Data, Journal, Event Status Board (which was previously called CAI Status Board), and the Navigator windows.

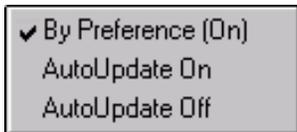


As a multi-user system, one of FEMIS's features has been the New Data button, which lets the user know when another user has updated information. AutoUpdate lets the user decide if updates will occur automatically or via user response to the New Data button. Windows that display the AutoUpdate button will be automatically updated when data has been changed.

The AutoUpdate button is found in the same location as the Refresh/New Data buttons. An overall preference for AutoUpdate windows is set up on the User Preferences window. To turn AutoUpdate on from the Workbench menu, select File → Preferences → User Preferences → Other tab, and click in the AutoUpdate checkbox.



Users can override the general preference on windows with the AutoUpdate feature. To change the setting for a specific window, right-click on that window's AutoUpdate button to display the following menu.



A checkmark in front of the item indicates the current setting. The "By Preference" option indicates this window is controlled by the general preference setting. The "(On)" or "(Off)" specifies the general preference that is selected on the User Preferences window. The other two menu items allow the user to select a setting for this window regardless of the general setting. A new setting is retained for the remainder of the current session.

## GIS Enhancements

In v1.5, the GIS was enhanced to provide three interface options. These options make using ArcView easier for the casual user yet retains all of ArcView's capabilities for the advanced user.



The Basic, Standard, and Full Command Bar options are described below.

- Basic Command Bar – displays only the most basic, frequently used, and easily understood tools and buttons. It provides the occasional user with basic information tools and zooming functionality.
- Standard Command Bar – displays the default interface used in previous versions of FEMIS, which has the commonly used buttons, tools and menus buttons for the more experienced user.
- Full Command Bar – displays all of the ArcView tools and buttons, including all native ArcView functions plus the full set of customized FEMIS functions, for the convenience of advanced users.

The Standard Command Bar is the default setting when the GIS opens. If the Use Basic Command Bar

at Startup is selected on the Other tab of the User Preferences window, the Basic Command Bar will be the default setting when the GIS opens. (See User Preference window under AutoUpdate.) However, users can easily change to a different command bar for the session by selecting another option under the GIS View menu.

ViewMarks are now stored in the database rather than on a shared network drive, which allows users access to all of the ViewMarks from any PC and eliminates any conflict between multiple users accessing and changing a ViewMark at the same time.

## Alternate Methods for Accessing FEMIS Functionality

In FEMIS v1.5, we have continued to expand alternative access methods to include the following:

- Users can link to a specific Site Defined Status Board or Shared Report from a desktop icon.
- The Workbench provides user-defined direct access buttons that can be linked to FEMIS functions, such as a specific Site Defined Status Board or Shared Report or to other applications (e.g., Word or Excel).
- The capability to link to a URL or file for certain text boxes has been extended to support multiple links or a combination of links and other text.
- Links can be made from tasks in the electronic plan spreadsheet to specific Site Defined Status Boards and Shared Reports in FEMIS, other applications, or documents.

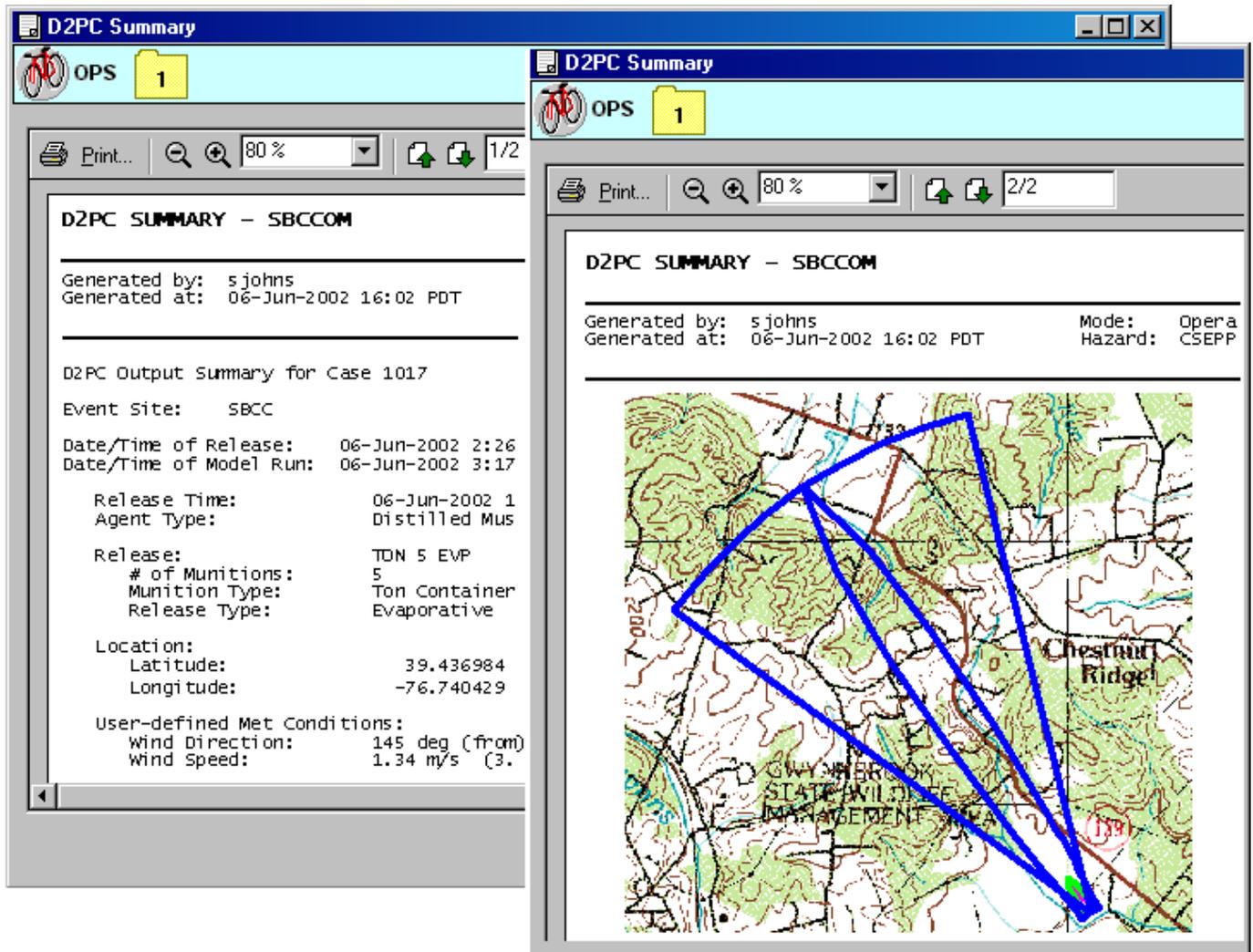


Site Defined Status Boards

Combining the alternate access capabilities with FEMIS's multi-user, multi-jurisdictional data sharing capabilities provides a way for EOCs and/or individuals to set up immediate access to the data most important to them.

## Reports

Reports have a new, more concise format, and completed reports are displayed in Adobe® Acrobat® Reader®. The new report format allows users to imbed graphics into the reports, such as a map showing the D2PC case or the zones at risk, as shown in the D2PC Summary report.



Current report content has been modified to eliminate redundant information and include tip and tail time information. Several of the reports now include graphics.

FEMIS v1.5 also includes a new report: the Event Notification Report. FEMIS automatically generates this report whenever an event is declared, changed, or ended in FEMIS. The Event Notification Report includes a summary of the event data, D2PC case, PAR, and a graphic of the D2PC plume.

## Changes to Plan Development

Planning is no longer considered a “mode”; instead users access plan development functions from a menu item in either Operations or Exercise Operations mode. This change greatly simplifies the privileges that need to be set for each user.

Plan development no longer requires Microsoft Project, which simplifies the electronic planning functions. Also, the number of levels of tasks and subtasks allowed in a plan has been increased from three to six.

## Other Changes of Note

Other changes in v1.5 include the following:

- AutoD2PC now uses a new graph custom control allowing up to 20 cases to be displayed in the graph. Users can make the D2PC case current or declare an event from the graphics display.
- Sheltering now has two options: 1) Shelter and 2) Pressurized. The previous options of Normal, Expedient, and Enhanced Shelter were combined into Shelter.

## Oregon/Washington Exercise

On May 7, 2002, the Oregon/Washington exercise was held with emergency management personnel at Umatilla, Morrow, and Benton Counties as well as the Oregon State and Washington State EOCs.

FEMIS Shared Reports and Status Boards were used during the exercise. Throughout the exercise, FEMIS was used to keep EOC log status boards – Umatilla and Morrow Counties each kept their logs using FEMIS Site Defined Status Boards. All three counties and Washington State used the Shared Reports in FEMIS.

At the Morrow County EOC, the video teleconference (VTC) briefing was broadcast in the EOC, which allowed everyone within the EOC to observe what was happening in the policy makers' room. The EOC Site Defined Status Boards and Shared Reports were referenced several times during the VTC.

The information sharing capabilities in FEMIS enhanced communication between EOCs and between individuals within an EOC.

- Multiple personnel were making entries
- These entries were visible to all – including remote installations in Morrow and Umatilla Counties.

FEMIS was also used in the SIMCELL to help the hazard analysts in the SIMCELL provide credible inject information, respond to player queries, and review historical Met data.

## Web Operational Status Boards (Web OSB)

Web Operational Status Boards (Web OSB) were developed to be a web-based tool that allows emergency managers to identify highly dynamic status information and disseminate appropriate information within an EOC, to multiple EOCs within a site, and to users outside the EOC who need to know the information. Web OSB also supports “on-the-fly” planning and response activities using Site Defined Status Boards or Shared Reports.

You can request to have Web OSB installed with FEMIS v1.4.7.2 or v1.5.

Web OSB uses five essential elements of FEMIS: security, sharing information across jurisdictions, notifications, Site Defined Status Boards, and Shared Reports.

### Security

Web OSB uses three levels of security: physical security (IP addresses, SSL encryption, firewalls), login and password to grant access to the system, and user level privileges (individual users are granted privileges to view or edit information). Special software is not necessary.

### Sharing Information Across Jurisdictions

Web OSB makes information regarding an emergency easily accessible to shelters, schools, hospitals, government offices, and others who need to know.

The Web OSB server connects to the FEMIS database in much the same way that FEMIS does. The Web OSB server retrieves the Site Defined Status Board or Shared Report information from the FEMIS database, formats the information as a web page, and delivers it to the browser. When the Site Defined Status Board or Shared Report information is updated using a browser, the information is passed back to the Web OSB server, which updates the FEMIS database and makes the new information accessible to users of both FEMIS and Web OSB.

### Notifications

Web OSB uses FEMIS notifications at three levels: local (within a user's PC), normal (across PCs within an EOC), and global (outside your EOC to other EOCs and PCs).

Users register interest in new data when they enter a window or interface. When the window is used to edit or add new information, a notification is sent to all users who have registered interest in that type of data. Users are alerted to new data via the New Data button on the appropriate window, or the information is automatically updated if the user has the window set up for AutoUpdate.

## Site Defined Status Boards and Shared Reports

Site Defined Status Boards and Shared Reports support multiple concurrent users and jurisdictions via either FEMIS or Web OSB. Users can view, add, or edit Site Defined Status Board contents using a browser. Status Board structure changes can be made using the FEMIS Site Defined Status Board Designer. Both structure and content changes are seen by users when they update their window. Web OSB provides a list of available status boards and uses the list to notify the users of changes to individual status boards.

Shared Reports, like Site Defined Status Boards, can also be added, viewed, and edited via a browser.

## Web OSB Reduces Costs

Web OSB reduces the cost of distributing EOC-level information and reduces administrative support cost for information technology components. It supports “on-the-fly” planning and response activities. Web OSB expands the walls of the EOC to include more users and jurisdictions and allows the information to flow to those who need to know.

## Who Is Using Web OSB

Currently, the Utah CEM and Tooele County have Web OSB installed and use it to disseminate information about CSEPP activities. Doug Redmond, Tooele County Emergency Management,” says “Web OSB is great. We used it today in the mock evacuation of the hospital. I haven't run into any problems after it got installed.

## Related Emergency Management Projects

**EMADVANTAGE**<sup>®</sup> is a non-CSEPP automated decision support system built with FEMIS technology. It provides situation planning (“what if” scenarios) and response capabilities for a large multi-user environment.

For the National Aeronautics and Space Administration (NASA), **EMADVANTAGE** was customized to transfer information and decisions to a wireless device that integrates a personal digital assistant (PDA), wireless modem, and global positioning system (GPS) device. Emergency management teams can simultaneously access information within

The screenshot shows a web browser window titled "Status Board Detail - Microsoft Internet Explorer" with the address "http://wd32440/WebFemis/servlet/SD5BDetail". The page content includes a header with user and exercise information, a "Refresh" button, and a table titled "Shelter Activation".

Select	Delete?	Shelter Name	Activated?	Capacity	Occupants	Full?	Pending Requests	Edit By
<input type="checkbox"/>	<input type="checkbox"/>	St Josephs Church	Yes	150	35	No	No	millard, dave
<input type="checkbox"/>	<input type="checkbox"/>	Columbia High School	Yes	350	42	No	Yes	millard, dave
<input type="checkbox"/>	<input type="checkbox"/>	Camp Murray	No	250	55	No	No	millard, dave
<input type="checkbox"/>	<input type="checkbox"/>	Jason Lee Middle School	No			No	No	millard, dave
<input type="checkbox"/>	<input type="checkbox"/>	Deseret Armory	No	200	0	No	Yes	millard, dave
<input type="checkbox"/>	<input type="checkbox"/>	St. Christopher's Church	No	150	0	No	No	millard, dave

the Emergency Operation Center (EOC), remotely using a Web browser, or via PDAs.

For the PEMEX oil refinery in Minatitlán, Mexico, **EMADVANTAGE** was customized to support their specific emergency management activities, and the user interface and online help were converted to Spanish.

The **EMADVANTAGE** Web site is at <http://www.pnl.gov/emadvantage>.

## CSEPP 2002 National Conference

The Racing Toward Community Preparedness CSEPP 2002 National Conference will be held in Lexington, Kentucky on June 26-27, 2002.

PNNL staff will be available to discuss and show the features of FEMIS v1.5. We are interested in your feedback regarding FEMIS v1.5 and other automation topics.



We will also be demonstrating Web OSB, which can be requested to be installed with v1.4.7.2 or v1.5.

## Installations and Verifications of FEMIS v1.5

Utah and Oregon/Washington are the first sites to be scheduled for the installation of FEMIS v1.5. Applied Computing Systems, Inc. (ACS) will

perform onsite and remote server installations and onsite PC installations. PNNL will do server verifications remotely and onsite PC verifications. PNNL's verifications include the following activities:

- Checking the server configuration.
- Verifying Cold and Hot Full backups have been set up for the Oracle database.
- Reviewing the site data to ensure the data upgrade process was successful.
- Verifying AutoRecovery was upgraded.
- Verifying Data Driven Notification (DDN) is working properly.
- Verifying CSEPP and General Hazard functions work properly.
- Verifying communication between FEMIS and EMIS.
- Configuring FEMIS to meet the users' needs, which may include:
  - Setting login preferences to have FEMIS automatically start the GIS function, enter a particular mode instead of requiring you to select one, or open the D2PC window.
  - Specifying which buttons are displayed on Workbench.
  - Customizing the Workbench by setting user preferences, such as displaying the URL box.
  - Creating desktop icons to access specific Site Defined Status Boards or Shared Reports.

During the verifications, we discuss desired EOC-specific configurations with the point of contact. We work with each EOC to ensure that FEMIS is installed and configured to meet your needs.

PNNL Contacts	IEM Help Desk
Pacific Northwest National Laboratory P. O. Box 999, K7-28 Richland, WA 99352 Fax: (509) 375-3641 Blanche M. Wood, FEMIS Program Manager (509) 375-2615 or <a href="mailto:blanche.wood@pnl.gov">blanche.wood@pnl.gov</a> Ranata L. Johnson, FEMIS Operations and Support (509) 375-6311 or <a href="mailto:ranata.johnson@pnl.gov">ranata.johnson@pnl.gov</a> Rick Carter, FEMIS Design and Development (509) 372-4564 or <a href="mailto:richard.carter@pnl.gov">richard.carter@pnl.gov</a>	Innovative Emergency Management, Inc. provides CSEPP Help Desk support Monday - Friday, except on federal holidays. 1-800-939-2737 – 8 a.m. to 4 p.m. Mountain Time
FEMIS Web site: <a href="http://www.pnl.gov/femis/">http://www.pnl.gov/femis/</a> and mirrored at <a href="http://csepp.apgea.army.mil/femis">http://csepp.apgea.army.mil/femis</a> .	Pacific Northwest National Laboratory is operated for the U. S. Department of Energy by Battelle.  Federal Emergency Management Information System (FEMIS®) Copyright 1995 Battelle Memorial Institute. All Rights Reserved. The Government retains a paid-up nonexclusive irrevocable worldwide license to reproduce, prepare derivative works, perform publicly, and display publicly by or for the Government, including the right to distribute to other Government Contractors. PNNL-SA-27216-7