



# Emergency Department Integration Software

Version 1.0  
System Management Guide—M Server  
September 2010



Department of Veterans Affairs  
Office of Enterprise Development  
VA Health Information Technology

## Revision History

*Note: The revision-history cycle begins after stakeholders have approved the initial version of the technical manual.*

Date	Patch or Version	Description	Project Manager	Author

# Table of Contents

<b>1. Emergency Department Integration Software .....</b>	<b>1</b>
1.1. Introduction .....	1
1.2. About this Guide .....	1
1.3. Section 508 of the Rehabilitation Act of 1973 .....	1
1.4. Related Documents .....	1
1.5. Document Conventions .....	1
1.6. Workstation Requirements .....	2
1.6.1. Flash Player: Minimum Requirements for Microsoft Windows .....	2
1.6.2. Flash Player: Minimum Requirements for Apple Mac OS .....	3
1.6.3. JAWS Requirements .....	3
<b>2. General Information .....</b>	<b>4</b>
2.1. Installation .....	4
2.2. Architectural Scope .....	4
2.2.1. Web Application .....	4
2.2.2. EDIS Display Boards .....	4
2.2.3. URLs .....	4
2.3. System Performance .....	5
2.3.1. Scaling Guide: Memory and CPU .....	5
2.3.2. Disk Space .....	6
2.3.3. Namespace and Number Space .....	6
2.3.4. Timeouts .....	6
2.3.5. Response Times .....	6
<b>3. Parameters .....</b>	<b>7</b>
3.1. EDIS (EDPF) Parameters .....	7
3.1.1. Setting Up Synchronization with Patient Care Encounters .....	8
<b>4. Routines .....</b>	<b>10</b>
4.1. EDIS Routines .....	10
4.2. EDIS Checksums .....	13
<b>5. Files and Globals .....</b>	<b>15</b>
5.1. Globals .....	15
5.2. Files .....	15
5.2.1. File Descriptions .....	15
<b>6. Exported Remote Procedure Calls .....</b>	<b>44</b>
6.1. EDIS Remote Procedure Calls .....	44
6.1.1. EDPCBRD .....	44
6.1.2. EDPCTRL .....	44
<b>7. Exported Options .....</b>	<b>45</b>
7.1. EDIS Options .....	45
7.2. Include EDIS Options in Users' Menu Trees .....	47
7.2.1. Assign EDIS Views to Users .....	47
<b>8. Security .....</b>	<b>49</b>
8.1. KAAJEE .....	49
8.2. Secure Sockets Layer .....	49
8.2.1. PKI Encryption Basics .....	49
8.3. Security Keys .....	49
8.3.1. EDPF KIOSKS .....	49
8.3.2. EDPR EXPORT .....	49
8.3.3. EDPR PROVIDER .....	50
8.3.4. EDPR XREF .....	50

8.3.5.	Assign Keys for Emergency Department Users .....	50
<b>9.</b>	<b>Protocols.....</b>	<b>51</b>
9.1.	EDIS Protocols .....	51
9.2.	Other Protocols.....	52
<b>10.</b>	<b>List Templates .....</b>	<b>53</b>
10.1.	EDIS List Templates .....	53
<b>11.</b>	<b>Setting up the Large, Electronic Whiteboard Display .....</b>	<b>54</b>
11.1.	Confirm Software Prerequisites.....	54
11.2.	Make Hidden Files and Folders Visible .....	54
11.3.	Configure the Machine's Power, Sound, and Screensaver Settings.....	56
11.3.1.	Change the Sound Control Setting to Mute .....	57
11.3.2.	Change Background and Screensaver Settings to None .....	57
11.3.3.	Copy the Testuser Profile Account into the Default User Account .....	59
11.4.	Add Your Local IRM Security Group to the Machine's Local Administrator Group.....	60
11.5.	Add the Machine to Its Own Local Administrator Group .....	61
11.6.	Configure Auto Login and Auto Login Lockdown .....	61
11.7.	Contact the VA National Helpdesk at 888.596.4357 or Create a Remedy Ticket.....	62
11.8.	Wait until the VA National Helpdesk Calls or Sends an Email Message to Notify You that It has Completed Your Requests. ....	62
11.9.	Configure Kiosk Mode in VistA .....	62
11.10.	Configure a Display Board Size.....	65
11.11.	Confirm your settings.....	65
11.11.1.	If Necessary: Log in to the Kiosk as an Administrator .....	65
<b>12.</b>	<b>Troubleshooting.....</b>	<b>67</b>
12.1.	Check-in via Scheduling .....	67
12.2.	Blank View .....	67
12.3.	PCE Visits.....	67
12.3.1.	Check the EDPF LOCATION Parameter .....	67
12.3.2.	Check for Active Person Class .....	67
12.4.	Nurse Assignments .....	67
12.5.	Intermittent Login Difficulties .....	68

# 1. Emergency Department Integration Software

## 1.1. Introduction

Emergency Department Integration Software (EDIS) incorporates several Web-based views that extend the current Computerized Patient Record System (CPRS) to help healthcare professionals track and manage the flow of patient care in the emergency-department setting. EDIS views are based on a class-three application developed by the Upstate New York Veterans Health Care Network—or Veterans Integrated Services Network (VISN) 2. Most views are site-configurable. EDIS enables you to:

- Add emergency-department patients to the application’s electronic whiteboard—or big board—display
- View information about patients on the display board
- Edit patient information
- Remove patients from the display board
- Create administrative and operational reports

The application also includes views for entering patients’ dispositions and configuring the display board.

## 1.2. About this Guide

*Emergency Department Integration Software Technical Manual* provides technical information for configuring, managing, and troubleshooting local (M Server) components of the EDIS application.

## 1.3. Section 508 of the Rehabilitation Act of 1973

The Portable Document File (PDF) version of this guide supports assistive reading devices such as Job Access with Speech (JAWS).

## 1.4. Related Documents

*Emergency Department Integration Software User Guide*

*Emergency Department Integration Software Installation Guide—M Server*

*Emergency Department Integration Software Glossary*

## 1.5. Document Conventions

**Bold type** indicates application elements (views, panes, links, buttons, text boxes, and so forth) and key names.

Key names appear in angle brackets <>.

*Italicized text* indicates special emphasis or user responses.

ALL CAPS indicates M routines and options.

... (ellipses) indicate omitted text.

## 1.6. Workstation Requirements

The EDIS presentation tier runs in Adobe Flash Player, which in turn runs in a Web browser. If users do not have Flash Player 9.0 or later installed on their computers, EDIS does one of the following things:

- If Flash Player 8.0 or later is running on users' machines, EDIS automatically downloads and installs the latest version of Flash Player.
- If Flash Player is not running on users' machines, or if their machines are running a version earlier than Flash Player 8.0, the application prompts users to download and install the latest version of Flash Player.

*Note: Users need administrative access to their machines to download and install Flash Player. If they do not have administrative access, they will need help from your site's local information resource management (IRM) staff.*

### 1.6.1. Flash Player: Minimum Requirements for Microsoft Windows

- Intel Pentium II 450MHz or faster processor (or equivalent), AMD Athlon 600MHz or faster processor (or equivalent)
- 128MB RAM
- Browsers:

#### Browser Requirements for Flash Player 9.x

Platform	Browser
Windows Vista	Internet Explorer 7, Firefox 2.0, AOL 9
Windows XP	Internet Explorer 6.0 or later, Firefox 1.x, Firefox 2.x, Mozilla 1.x or later, Netscape 7.x or later, AOL 9, Opera 7.11 or later
Windows Server 2003	Internet Explorer 6.0 or later, Firefox 1.x, Firefox 2.x
Windows 2000	Internet Explorer 5.x, Firefox 1.x, Firefox 2.x, Mozilla 1.x, Netscape 7.x or later, AOL 9, Opera 7.11 or later
Windows Millennium Edition	Internet Explorer 5.5, Firefox 1.x, Mozilla 1.x, Netscape 7.x or later, AOL 9, Opera 7.11 or later
Windows 98	Internet Explorer 6.0 or later, Firefox 1.x, Mozilla 1.x, Netscape 7.x or later, Opera 7.11 or later

#### Browser Requirements for Flash Player 10.x

Platform	Browser
Windows Vista	Internet Explorer 7.0 or later, Firefox 2.x, Firefox 3.x, AOL 9, Opera 9.5 or later, Safari 3.x, Chrome 2.0 or later
Windows XP	Internet Explorer 6.0 or later, Firefox 2.x, Firefox 3.x, AOL 9, Opera 9.5 or later, Safari 3.x, Chrome 2.0 or later
Windows Server 2003	Internet Explorer 6.0 or later, Firefox 2.x, Firefox 3.x
Windows Server 2008	Internet Explorer 7.0 or later, Firefox 3.x
Windows 2000	Internet Explorer 6.0, Firefox 2.x, Firefox 3.x, AOL 9, Opera 9.5
Windows 7	Internet Explorer 8.0 or later, Firefox 3.x or later

### 1.6.2. Flash Player: Minimum Requirements for Apple Mac OS

- PowerPC G3 500MHz or faster processor or Intel Core Duo 1.33GHz or faster processor
- 128MB RAM
- Browsers:

#### Browser Requirements for Flash Player 9.x

Platform	Browser
Mac OS X 10.1 or later (PowerPC)	Firefox 1.x, Mozilla 1.x, Netscape 7.x or later, AOL for Mac OS X, Opera 6, Safari 1.x or later
Mac OS X 10.4.x or later (Intel)	Firefox 1.5.0.3 or later, Opera 6, Safari 2.x or later

#### Browser Requirements for Flash Player 10.x

Platform	Browser
Mac OS X 10.4 or 10.5 (PowerPC)	Firefox 2.x, Firefox 3.x, AOL for Mac OS X, Opera 9.5, Safari 3.x
Mac OS X 10.4.x or 10.5 (Intel)	Firefox 2.x, Firefox 3.x, Opera 9.5, Safari 3.x
Mac OSX 10.6	Firefox 3.x or later, Safari 5.x or later

### 1.6.3. JAWS Requirements

Users who rely on Job Access with Speech (JAWS) for Windows must download and install scripts to enable Adobe Flex accessibility features. The scripts allow users to employ the standard keyboard shortcut to enter forms mode on EDIS interface controls. Accessibility scripts are available at [www.adobe.com/macromedia/accessibility/features/flex/jaws.html](http://www.adobe.com/macromedia/accessibility/features/flex/jaws.html). JAWS version 10 corrects several problems that users experienced with previous versions of JAWS. The EDIS development team recommends JAWS 10 and Microsoft Internet Explorer (IE) 6.0 for JAWS users.

## 2. General Information

### 2.1. Installation

*Emergency Department Integration Software Installation Guide—M Server* provides detailed instructions for downloading, installing, and setting up EDIS components that run in your local IT environment. You can find this and other EDIS documents on the VHA Software Document Library site ([www.va.gov/vdl](http://www.va.gov/vdl)). Documents are also available via FTP in the Office of Information Field Office (OIFO) ANONYMOUS.SOFTWARE directories listed below:

OIFO	FTP Address	Directory
Albany	<a href="ftp.fo-albany.med.va.gov">ftp.fo-albany.med.va.gov</a>	anonymous.software
Hines	<a href="ftp.fo-hines.med.va.gov">ftp.fo-hines.med.va.gov</a>	anonymous.software
Salt Lake City	<a href="ftp.fo-slc.med.va.gov">ftp.fo-slc.med.va.gov</a>	anonymous.software
VistA Download Site	<a href="download.vista.med.va.gov">download.vista.med.va.gov</a>	anonymous.software

### 2.2. Architectural Scope

EDIS runs as a Web application on a centrally located BEA WebLogic server that contains program logic and operational emergency-department data in its Java middle tier. (See Figure 1.) The presentation tier is a Flash Player application. The data tier encompasses local sites' Veterans Health Information Systems and Technology Architecture (VistA) systems and a centrally located relational database management system (RDMS) data store containing Standard Data Services (SDS) tables.

The application uses remote procedure calls (RPCs) from local VistA implementations to populate patient- and provider-selection lists, provide limited data synchronization between EDIS and CPRS, and determine users' access levels.

#### 2.2.1. Web Application

The application's presentation tier runs in users' Web browsers via Adobe Flash Player. The VA's Kernel Authentication and Authorization for Java 2 Enterprise Edition (KAAJEE) provides end-user authentication.

#### 2.2.2. EDIS Display Boards

Sites can configure one or more electronic whiteboard—or big board—displays. Display boards run in their own browser-based instances of Flash Player.

#### 2.2.3. URLs

##### 2.2.3.1. EDIS in Production Accounts

When EDIS is running in your site's production account, use <https://vaww.edis.med.va.gov/main> for user access to the main application and <https://vaww.edis.med.va.gov/main/board.html> for your main big-board display.



For secondary big-board displays, append the following argument:  
 ?board=your\_secondary\_board\_name. For example, if your site has a secondary display board named *Lab*, its URL would be  
<https://vaww.edis.med.va.gov/main/board.html?board=Lab>.

### 2.2.3.2. EDIS in Test Accounts

When EDIS is running in your site’s test account, use  
<https://staging.edis.med.va.gov/main> for user access to the main application and  
<https://staging.edis.med.va.gov/main/board.html> for large display boards.

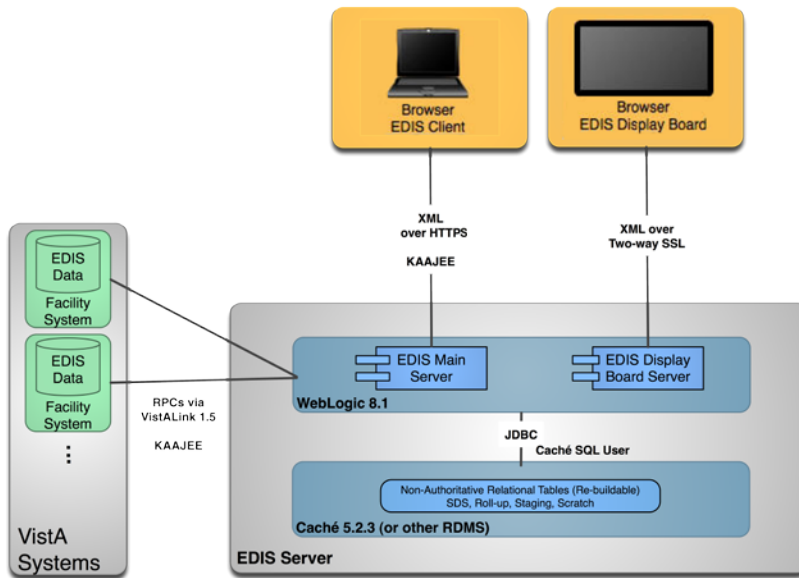


Figure 1: The EDIS topology—version 1.0.

## 2.3. System Performance

### 2.3.1. Scaling Guide: Memory and CPU

Workstations should comply with VA Desktop Minimum Acceptable Configurations (<http://vaww.vairm.vaco.va.gov/VADesktop>). In addition, users’ workstations should meet the minimum hardware requirements for running Adobe Flash Player:

#### Minimum Hardware Requirements

Platform	CPU	RAM
Windows	Intel Pentium II 450MHz or faster processor (or equivalent), AMD Athlon 600MHz or faster processor (or equivalent)	128 MB

Platform	CPU	RAM
Macintosh	PowerPC G3 500MHz or faster processor or Intel Core Duo 1.33GHz or faster processor	128 MB

### Optimal Viewing Requirements

Resolution	CPU	RAM
852 x 480 (480 p), 24 frames per second (fps)	Intel Pentium 4 2.33 GHz processor (or equivalent)	256 MB RAM with 64 MB VRAM
1280 x 720 (720 p), 24–30 fps	Intel Pentium 4 3 GHz processor (or equivalent)	128 MB RAM with 64 MB VRAM
1920 x 1080 (1080 p) 24 fps	Intel Core Duo 1.8 GHz processor (or equivalent)	128 MB RAM with 64 MB VRAM

### 2.3.2. Disk Space

EDIS installation creates files in two globals: ^EDP and ^EDPB.

- You can expect ^EDP to grow at the following yearly rate: 2,000 bytes multiplied by the number of emergency-department visits per year. For example, if your emergency department responds to an average of 12,000 visits every year, you can expect ^EDP to grow at a yearly rate of 24 MB. You should place this global in a volume with sufficient space to manage this growth.
- You can expect ^EDPB to remain small. (It is currently about 50 K.)

### 2.3.3. Namespace and Number Space

The namespace for EDIS is EDP. The number space is 230-234.

### 2.3.4. Timeouts

EDIS uses the CPRS GUI timeout parameter (ORWOR TIMEOUT CHART). If this parameter isn't set for your site's users, EDIS uses the kernel function \$\$DTIME^XUP to determine timeout. If users' DTIME is set to null, EDIS uses DEFAULT TIME-READ in the Kernel Parameters file. If this file is set to zero, the application uses a timeout of 300 seconds.

### 2.3.5. Response Times

Insufficient data: response times are still to be determined (TBD).

## 3. Parameters

### 3.1. EDIS (EDPF) Parameters

EDPF Parameter Name	Description
EDPF BIGBOARD KIOSKS	This parameter maps fully qualified computer names to display board names. Sites must add or change values for this parameter via the EDPF BIGBOARD KIOSKS option.
EDPF DEBUG START TIME	This parameter sets a \$H timestamp to signal that EDIS should log out its RPCs for the 30 minutes following the debug time stamp.
EDPF LOCATION	<p>This parameter holds one or more entries from the Hospital Location (#44) file. Entries correspond to hospital locations that the emergency department uses. With this parameter, VistA prompts sites for a time range or sequence. If sites have multiple Hospital Location file entries, they have two choices when responding to the <b>Time Range or Sequence</b> prompt: they can enter a time range or a sequence.</p> <p>Entering a time range allows EDIS to map Hospital Location entries by time of day. EDIS uses this mapping when users create encounters in the Patient Care Encounters (PCE) package: it matches the Hospital Location entry based on the current time of day. The parameter accepts ranges in military time.</p> <p>Entering a sequence allows sites to map Hospital Location entries in order of preference. When users create encounters in PCE, EDIS uses the entry with the lowest sequence number to create visits.</p> <p>When users create appointments by checking in patients via the Scheduling package, any matches on this parameter's list of locations (be they time- or sequence-based) cause EDIS to add the checked-in patient to the display board.</p>
EDPF NURSE STAFF SCREEN	<p>This parameter allows sites to select the type of filtering upon which EDIS bases its nurse-selection list. It applies filtering—or screening—to the New Person file (#200). By default, EDIS allows selections from all entries in the New Person file. Other screening options include the following:</p> <ul style="list-style-type: none"> <li>• Allow only persons holding the ORELSE key</li> <li>• Allow only persons holding the PSJ RNURSE key</li> <li>• Allow only persons who are present and active in the Nurs Staff file (#210)</li> </ul>
EDPF SCHEDULING TRIGGER	<p>This parameter allows sites to specify which Scheduling package event triggers EDIS to automatically add patients to the board. Sites can choose from one of the following two selections:</p> <p><b>1: Patient will be added to the board when an appointment is made</b></p> <p><b>4: Patient will be added to the board when checked in</b></p> <p>Sites can set this parameter at the package, system, or division level.</p>

EDPF Parameter Name	Description
EDPF SCREEN SIZES	This parameter contains a list of selectable screen sizes for sites' EDIS display boards. The parameter generally lists large-display LCD or plasma screen sizes. Add screen sizes to this parameter using the following format: WxH (width multiplied by height). You can set this parameter at the package, system, or division level.

### 3.1.1. Setting Up Synchronization with Patient Care Encounters

The EDPF LOCATION parameter should contain the hospital location or locations that your emergency department uses. If yours is a multi-division site, make an entry for each division.

1. Log in to VistA.
2. At the Select **OPTION NAME** prompt, type *xpar menu* (for **XPAR MENU TOOLS**) and then press the <Enter> key.
3. At the **Select General Parameter Tools Option** prompt, type *ep* (for **Edit Parameters**) and then press the <Enter> key.
4. At the **Select PARAMETER DEFINITION NAME** prompt, type *edpf l* (for **EDPF LOCATION**), and then press the <Enter> key.
5. At the **Select INSTITUTION NAME** prompt, type the name or station number of your institution and then press the <Enter> key.
6. At the **Select Time Range (ex. 0800-1200) or Sequence** prompt, type the time range during which the clinic location you are about to select functions as your site's emergency department. Use military time. For example, if the location serves as your site's emergency department 24 hours a day, type *0001-2400*. Alternately, type a number that represents the location's preference rating (the number *1* represents the most-preferred location). Press the <Enter> key. When users create a PCE encounter, EDIS uses time-of-day-based or preference-based criteria to determine the encounter's location.

*Note:* When selecting time ranges, take care to account for all hours of emergency-department operation. EDIS does not create PCE appointments for patients whom users add during times that you don't include in the EDPF LOCATION parameter. For example, suppose you set the parameter to use Clinic A from 0700 to 0800 hours and Clinic B from 0900 to 1200 hours. If a user then adds a patient at 0830 hours, EDIS will not create a PCE appointment for the patient. Also, take care not to overlap hours. In cases where hours overlap, EDIS always creates the patient's PCE appointment for the first clinic.

7. At the **Are you adding [your time range or sequence] as a new Time Range or Sequence? Yes//** prompt, press the <Enter> key to accept the time range or sequence—or, if you've made a mistake, type the letter *n* (for *No*) and press the <Enter> key.
8. VistA displays a confirmation: **Time Range (ex. 0800-1200) or Sequence [your time range or sequence]//**. Press the <Enter> key to acknowledge this confirmation.

9. At the **ED LOCATION** prompt, type the name of the location that serves as your site's emergency department during this time range (or for this preference rating) and press the <Enter> key.
10. Repeat steps 6 through 9 for additional emergency-department locations.

## 4. Routines

### 4.1. EDIS Routines

- EDPBCF loads and saves display-board configuration settings—including column values, color maps, room and area values, parameter settings, and screen-size settings. It also loads a list of display boards and their specifications.
- EDPBCM creates and saves configuration settings for color maps. It creates color-map elements, closing tags, map elements for standard urgencies, and single map elements. It also builds color-map selection lists.
- EDPBDL deletes or inactivates configuration entries. It deletes rooms or beds if the application's log entries are not referencing them; otherwise, it inactivates the rooms or beds.
- EDPBKS supports a list template that maps fully qualified machine names to the names of EDIS big-board displays; this routine enables sites to add, change, and delete large displays that run in kiosk mode.
- EDPBLK handles locking and unlocking for configuration settings. It displays one of three error messages when one user attempts to make or save configuration changes while another user is also making or saving changes.
- EDPBPM loads current and saves updated **Configuration** view parameter settings (diagnosis required, coded diagnosis required, disposition required, reason for delay required, number of minutes before reason for delay is required, shift start time and duration, include residents, default room or area, and arriving-ambulance area). It also saves time zone differences (in minutes) and sets the fail node.
- EDPBRM loads a list of all rooms and beds in sequence, builds an XML output file containing this list, and keeps the list updated. It also adds and updates room-and-area records, loads multi-assignment areas and choice lists (display-when, single- and multiple-patient assignments, and so forth).
- EDPBRS sets and resets display-board specifications (default-board specifications, display width, scroll-delay time, column size, column headers and size, font size, row colors, baseline rooms, and baseline parameters).
- EDPBSL loads selection lists (acuity, status, mode of arrival, disposition, and reason for delay) and builds XML output files for them. It also saves selection-list changes; creates new code sets; clears codes from, and adds new codes to, the CODES multiple; and updates existing codes in, and adds new codes to, the Tracking Code file (#233.1).
- EDPBST returns a list of staffing matches from VistA's New Person file (#200). For each of the following three roles, it builds a list of staff members who have an active person class: resident, physician, and nurse. It also saves updated staff members and adds and updates records in the Tracking Staff file (#231.7).
- EDPCBRD is the controller for the EDIS display board. It processes requests via remote procedure calls (RPCs) and also supports a Caché Server Pages (CSP) mode for processing requests via CSP.
- EDPCDBG is the debugging routine for the display-board controller. It turns debugging on and off, enables the EDIS debugging log, logs debugging activities for 30 minutes after the debugging start time, records debugging start and stop times, and saves debugging requests and XML results.
- EDPCONV processes incoming mail to convert emergency-department visits from Syracuse class-three application files to EDIS class-one files. It stores conversion data in

the Tracking Code file (#233.1), Tracking Room/Bed file (#231.8), ED Log file (#230), and ED Log History file (#230.1).

- EDPCONV1 converts configuration data from Syracuse class-three application files to EDIS class-one files. It stores converted data in the Tracking Area file (#231.9).
- EDPCSV is a comma-separated-value (CSV) utility that provides a controller for HyperText Transfer Protocol (HTTP) requests.
- EDPCTRL is the controller for EDIS. It processes requests via remote procedure calls (RPCs) and also supports a Caché Server Pages (CSP) mode for processing requests via CSP.
- EDPDD provides a test update log.
- EDPFAA provides RPC calls to the local facility. It also sets up EDIS sessions and returns role-based views for users. (EDPFAA code enabled VHA eHealth University [VeHU] training.)
- EDPFLEX provides Lexicon-package utilities: it returns matches from the Lexicon package when users type in free-text dispositions.
- EDPFMON monitors Health Level 7 (HL7) VistA event messages at the facility. It adds new orders to patients' log entries based on visit-related information from the following packages: Radiology, Laboratory, Pharmacy, Consults, Procedures, Dietetics, and Order Entry. It also updates orders' statuses and removes orders from patients' log entries.
- EDPFMOVE is part of the conversion routine. It moves local emergency-department visits to EDIS and provides conversion-related messages—"Visit conversion has completed," for example. This routine also provides users with several conversion-related options—such as the option to convert Syracuse class-three configuration data (in addition to patient data).
- EDPFPER looks up emergency-department staff (providers, residents, and nurses) in VistA's New Person file (#200). The routine adds people who match its screening criteria to EDIS staffing lists.
- EDPFPTC performs patient-selection checks. For example, this routine checks to see if selected patients are already on the **Active Patients** list, have patient records that are marked sensitive (in which case the routine displays a warning), are deceased, or have identifiers that are similar to the identifiers of one or more patients who are already on the **Active Patients** list. (Patients on the **Active Patients** list are ipso facto on the display board.) This routine also gets patient record flags (PRFs) for display within EDIS and makes security-log entries when users access records marked sensitive.
- EDPFPTL accepts as its input patient names and social security numbers (including last four social security numbers and last-name initials concatenated with last four social security numbers) and returns from the local VistA system a list of possible matches.
- EDPLOG updates the EDIS log in response to timestamp changes. It also processes diagnoses and checks for the presence of data in required fields before letting users remove patients from the system.
- EDPLOG1 validates record entries and returns error messages for invalid entries.
- EDPLOGA adds log records for new patients. It sets up patient fields, adds default values to stub entries, creates current log records, and creates initial log-history entries. This routine also deletes the initial history-log stub entry.
- EDPLOGH adds new log-history entries and saves new entries for changed fields. This routine also checks timestamps in the ED Log History file (#230.1) for possible data-entry collisions and displays a warning message—"Since you loaded this entry, changes have been made by someone else"—when collisions are imminent. Similarly, when users update data and select a different view before saving their updates, this routine warns them that they will lose their changes if they exit the view without first saving their changes. Finally, this routine notifies users when their bed choices are no longer available.

- EDPLPCE creates a visit in the CPRS Patient Care Encounters (PCE) package when users select a provider, resident, nurse, or diagnosis in EDIS. It updates diagnoses for emergency-department visits in EDIS if users enter the diagnoses in CPRS, and in CPRS if users enter the diagnoses in EDIS. This routine also coordinates primary providers between CPRS and EDIS.
- EDPMAIL parses and processes incoming VA MailMan messages from SEND^EDPFMON, which monitors order-related events such as new orders, order changes, deleted orders, and so forth. EDPMAIL also parses and processes patient check-in events.
- EDPQAR logs area information. It returns site-configurable parameters and default areas, and adds default areas in cases where no default areas are assigned.
- EDPQDB displays active log entries on the EDIS display board. It gets display-board data—a list of all beds in sequence for a given area, patient data, and so forth—computes order statuses, and formats data for display.
- EDPQDBS gets display-board specifications for room, area, and staff color configurations.
- EDPQLE retrieves log entries by request and returns XML-formatted log entries for patient demographics, diagnoses (ICD-9-CM coded), fields required for closing entries (delay reasons, physician assignments, and so forth), and time stamps.
- EDPQLE1 retrieves supporting information—such as staff and other selection items—and adds the information to XML pick lists. It also builds nodes for code sets.
- EDPQLP returns lists for the log-entry edit context. It also builds duplicate-name and last-four-Social-Security-number lists for counters.
- EDPQPCE retrieves PCE information such as diagnoses (including primary and free-text diagnoses) for emergency-department visits.
- EDPRPT gets data for reports by site and date range. This routine turns on switches that determine the beginning and ending points of the report date range and the report type. It also returns timestamp-related data—such as the times acuities were first assigned, the times patients left the waiting area, the times admitting decisions were entered, and so forth.
- EDPRPT1 gets data for the Activity report based on site and date range. It gets report headers (CSV), calculates times and averages for column values, initializes counters and sums, returns external values for codes, and includes a list of assigned providers.
- EDPRPT10 gets data for the Admissions report based on site and date range. This routine initializes counters and sums, gets report headers (CSV), calculates times and averages, initializes counters and sums, and returns external values for codes.
- EDPRPT11 gets data for the Patient Intake report based on site and date range. This routine initializes counters and sums, gets report headers, returns counts and averages, performs rounding computations, returns hours (24-hour—or military—clock format), and returns name-of-day (Monday, Tuesday, and so forth).
- EDPRPT12 gets data for the Orders by Acuity report based on site and date range. It gets report headers and returns an acuity-based count of lab, imaging, medication, consult, and other orders.
- EDPRPT2 gets data for the Delay report based on site and date range. It initializes counters and sums, returns counts and averages, and gets column headers. The routine also returns disposition indicators for VA admissions and external values for codes.
- EDPRPT3 gets data for the Missed Opportunities report based on site and date range. It initializes counters and returns a **1** (one) or **0** (zero) to indicate missed opportunities. The routine also gets column headers, initializes counters, calculates times, and returns totals as CSV- or XML-formatted data.



- EDP RPT4 gets data for the Delay Summary report based on site and date range. It initializes counters and sums and returns counts and averages as CSV- or XML-formatted data. This routine also returns external values for acuity and other codes, and codes (1 or 0) for IEN statuses that indicate observation.
- EDP RPT5 returns data for the Shift report based on site and day. It initializes counters and sums, calculates the number of visits that carried over, and returns the following: column information (headers, counts and averages—as CSV- and XML-formatted data), the names of shifts (one, two, three, and so forth—based on shift times), and external values for acuity codes.
- EDP RPT6 gets data for the Provider report based on site and date range. It initializes counters and sums, calculates and returns averages as CSV- and XML-formatted data, and returns external values for acuity codes.
- EDP RPT7 gets data for the Exposure report based on site and the infected person’s time in and time out of the emergency department. It returns a list of patients who were in the waiting room and treatment rooms during the infected patient’s stay (adding a row for each room the infected patient used—including laboratory and x-ray). It also returns on-duty staff assignments. EDP RPT7 returns external values for codes.
- EDP RPT7C gets data for the Exposure report in CSV format.
- EDP RPT8 gets data for the Acuity report based on site and date range. It initializes counters and sums and returns external values for acuity codes. The routine returns counts and averages for acuity-based entries, all admissions, and VA admissions.
- EDP RPT9 gets data for the Patient Cross Reference (XRef) report based on site and date range. It uses the ED Log file (#230) to provide information about patients’ identities.
- EDP RPTBV gets data for the BVAC report based on site and date range. This routine initializes counters and sums, gets column headers, calculates sums and averages, and returns external values for codes.
- EDPX provides a group of common utilities that includes the following: ESC (X), escape for XML transmission; UES (X), unescape XML; UESREQ (REQ), unescape HTTP post; VAL (X,R), returns parameter value or null; NVPARSE (LST, IN), parses tab and delimited name-value pairs into an array; XMLS (TAG, DATA, LBL), returns an XML node as <TAG data=“9” label=“XXX” />; XMLA (TAG, ATT, END), returns an XML node as <TAG att1=“a” att2=“b”... />; SMLE (SRC), appends lists to XML arrays as elements; XML (X), adds the line of XML that is to be returned; CODE (X), returns internal values for codes; MSG (MSG), writes out error messages.
- EDPYCHK performs a pre-installation environment check.
- EDPYPRE is the pre-initialization routine.
- EDPYST is the post initialization routine.

## 4.2. EDIS Checksums

The following list contains routine names with post-install checksums:

EDPBCF	value =	25096927	EDPLPCE	value =	32802123
EDPBCM	value =	17076528	EDPMAIL	value =	7335309
EDPBDL	value =	11063047	EDPQAR	value =	6639632
EDPBKS	value =	15371728	EDPQDB	value =	37231235
EDPBLK	value =	7330093	EDPQDBS	value =	3113182
EDPBPM	value =	6216911	EDPQLE	value =	40300302
EDPBRM	value =	24385375	EDPQLE1	value =	9736825
EDPBRS	value =	19077772	EDPQLP	value =	12368052
EDPBSL	value =	20029785	EDPQPCE	value =	2442064
EDPBST	value =	8664749	EDPRPT	value =	17619722
EDPCBRD	value =	4350223	EDPRPT1	value =	33605254

EDPCDBG	value =	4038807	EDPRPT10	value =	19172294
EDPCONV	value =	47887788	EDPRPT11	value =	8054102
EDPCONV1	value =	10237522	EDPRPT12	value =	7797789
EDPCSV	value =	906612	EDPRPT2	value =	15843773
EDPCTRL	value =	33410398	EDPRPT3	value =	8721424
EDPDD	value =	1560959	EDPRPT4	value =	24084771
EDPFAA	value =	5372812	EDPRPT5	value =	35383693
EDPFLEX	value =	1745474	EDPRPT6	value =	9613057
EDPFMON	value =	27211876	EDPRPT7	value =	19582712
EDPFMOVE	value =	43728958	EDPRPT7C	value =	19611509
EDPFPER	value =	3427509	EDPRPT8	value =	14454195
EDPFPTC	value =	14885802	EDPRPT9	value =	1592058
EDPFPTL	value =	4915038	EDPRPTBV	value =	21129991
EDPLOG	value =	42149061	EDPX	value =	9797287
EDPLOG1	value =	2583250	EDPYPRE	value =	8226400
EDPLOGA	value =	10789313	EDPYPST	value =	35872203
EDPLOGH	value =	9457380			

## 5. Files and Globals

### 5.1. Globals

EDIS uses the following globals:

^EDP

^EDPB

The ^EDP global holds a list of patients who are currently checked in at the emergency-department (that is, the list of active patients). The ^EDPB global holds a comprehensive list of emergency-department activities.

#### Global Placement and Protection

Global	Type	Placement	Journal	Protection
^EDP	Dynamic	Place this global in a volume set that can accommodate the following yearly growth rate: 2,000 bytes * visits per year	Yes	RWP or D
^EDPB	Static	No recommendation (this global should remain small)	Yes	RWP or D

### 5.2. Files

File #	File Name	Root Global	Global Protection
230	ED LOG	^EDPB(230	@
230.1	ED LOG HISTORY	^EDP(230.1	@
231.7	TRACKING STAFF	^EDPB(231.7	@
231.8	TRACKING ROOM-BED	^EDPB(231.8	@
231.9	TRACKING AREA	^EDPB(231.9	@
233.1	TRACKING CODE	^EDPB(233.1	@
233.2	TRACKING CODE SET	^EDPB(233.2	@

#### 5.2.1. File Descriptions

##### 5.2.1.1. ED Log (#230)

The ED Log file serves as the log of emergency-department visits and as EDIS's key source of information for display-board data. EDIS refreshes the display board every 30 seconds, and many of the indices in this file assist in making the application's refresh code as efficient as possible.

The file works together with the ED Log History file (#230.1) to track activities associated with typical emergency-department visits from beginning to end. The log records key clinical events—triage and disposition, for example. It also records where each patient went after his or her emergency-department visit, and who was responsible for the patient.

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.01	LOG ENTRY TIME	The Log Entry field (.01) of the ED Log History file (230.1) points to this field	230^B AC (#787) ADUP1 (#788) ADUP2 (#789) AL (#790) AN (#791) AO (#784) AP (#792) APA (#806) AS (#793) ATI (#794) ATO (#795) PDFN (#801) PN (#796)	Date-and-time field (required): Contains the date and time EDIS added this log record to the file
.02	INSTITUTION	Pointer to the Institution file (#4)	AC (#787) ADUP1 (#788) ADUP2 (#789) AL (#790) AN (#791) AP (#792) AS (#793) ATO (#795) PN (#796) PDFN (#801)	Free-text field (required): This field allows EDIS to associate log entries with the stations that originated the entries; it allows the same EDIS system to serve multiple institutions
.03	AREA	Pointer to the Tracking Area file (#231.9)	AC (#787) ADUP1 (#788) ADUP2 (#789) AL (#790) AN (#791) AP (#792) AS (#793) PN (#796) PDFN (#801)	Pointer field Points to the hospital area to which records apply—initially only to the site's emergency-department locations; will allow sites to expand EDIS's use to other departments

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.04	PATIENT NAME			<p>Free-text field:</p> <p>Contains the patient's name</p> <p>Allows sites to enter patients' names in cases of humanitarian intervention or where patients do not yet have entries in VistA; assists in checking for duplicate names and similar names on the display; this field is set to the following value in cases where ambulances are arriving and the names of the patients are unknown: (ambulance en route); when patients are added to VistA during their ED visits, their names in VistA replace clerk-entered names; when users select patients from VistA, the software gets the patients' VistA names and places them in this field</p> <p>The field uses this format: Surname,Firstname</p> <p>Names must be 3 to 30 characters in length</p>
.05	PATIENT SSN		AS (#793)	<p>Free-text field:</p> <p>Contains the patient's Social Security number</p> <p>Allows sites to enter patients' Social Security numbers in cases of humanitarian care or when patients do not yet have entries in VistA</p>

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.06	PATIENT ID	Pointer to Patient file (#2)	AP (#792) APA (#806) PDFN (#801)	Pointer field: Points to the patient's data file number (the DFN is the IEN in the Patient file) Contains the patients in VistA for whom EDIS is creating its log entries; entries may be absent in cases where ambulances are arriving with unknown patients and where sites are rendering humanitarian aid to non-VA patients
.07	CLOSED		AC (#787) ADUP1 (#788) ADUP2 (#789) AL (#790) AN (#791) AP (#792) AS (#793) APA (#806)	A setting: 1 (Yes) 0 (No) EDIS sets this flag to 1 when users remove properly disposed patients from the area (emergency department); closed entries no longer appear on the display board
.08	TIME IN		ATI (#794)	Date-and-time field: Contains the time and date when the patient actually arrived at the emergency department EDIS measures patients' length of visit from this date and time
.09	TIME OUT		ATO (#795)	Date-and-time field: Contains the patient's discharge time and date EDIS prompts users for delay reasons based on the difference between time-in and time-out entries

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.1	ARRIVAL MODE	Pointer to the Tracking Code file (#233.1)		<p>Pointer field:</p> <p>Points to the source of the patient's visit</p> <p>Currently applies only to the sources of emergency-department visits—nursing homes or clinics, for example; values are associated with the &lt;stn&gt;.arrival and edp.arrival code sets</p>
.11	PATIENT BRIEF ID		ADUP2 (#789)	<p>Free-text field:</p> <p>Contains the patient's display-board identifier; can store identifiers for patients who are arriving by ambulance and for non-VA patients; the identifier should be in the X9999 format</p> <p>When VistA patients are selected, the field stores X9999-formatted identifiers that the application constructs from the Patient file (#2); this allows the application to indicate on the display board patients who have identical X9999-formatted identifiers</p>

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.12	VISIT	Pointer to the Visit file (#9000010)	230^AVISIT^MUMPS (increments and decrements the dependency counter in the Visit file [#9000010]) 230^V (PCE uses this cross reference to help identify dependent entries)	Pointer field: Points to the visit associated with this emergency-department encounter Because emergency departments don't normally use appointments, EDIS records patient visits in this field; EDIS can then create visits in PCE so subsequent caregivers can associate orders and progress notes with the same visit; EDIS creates this visit when it collects data for any PCE-related field, allowing it to call DATA2PCE; triage nurses usually enter this data
.13	CREATION SOURCE			A setting to identify the visit-creation source: 0 (EDIS) 1 (Scheduling) 2 (CPRS) EDIS generally populates the VISIT field by calling DATA2PCE; users can also create visits by entering emergency-department appointments or writing progress notes for emergency-department locations; this field records the mechanism responsible for creating the entry in the Visit file (#9000010)



Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.14	CLINIC	Pointer to the Hospital Location file (#44)		Pointer field Holds a pointer to the specific emergency-department clinic that EDIS will associate with the patient's visit. When users check in patients through the Scheduling package, EDIS stores a pointer to the clinic they select here until it creates a visit; when the application creates the visit, it uses the location stored in this field
1.1	COMPLAINT			Free-text field: Contains the complaint with which the patient presented; sites can include this complaint on the display board, so it should be brief enough to fit within a display-board column; this field accepts 1–50 characters
1.2	DISPOSITION	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the patient's end-of-visit disposition; values for this field are associated with the <stn>.disposition and edp.disposition code sets
1.3	DISPOSITION TIME			Time-and-date field: Contains the time and date of the patient's most recent disposition-field update
1.4	DIAGNOSIS TIME			Time-and-date field: Contains the date and time of the patient's last diagnosis-field update

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
1.5	DELAY REASON	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the reason for delay (for patient stays that exceed the maximum length of stay); associated with the <stn>.delay and edp.delay code sets
2	COMPLAINT (LONG)			Free-text field The patient's long complaint (free text); an optional field that allows staff to enter complaints in a longer form than EDIS allows for its display-board complaint; this field holds from 1 to 220 characters
3.2	STATUS	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the record of a patient's statuses during the course of his or her emergency-department visit (awaiting triage, ED patient, and so forth); associated with the <stn>.status and edp.status code sets
3.3	ACUITY	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the patient's acuity level, which is based on the Emergency Severity Index (ESI) algorithm (acuity levels 1 – 5); associated with the edp.acuity code set
3.4	LOC	Pointer to the Tracking Room-Bed file (#231.8)	AL (#790)	Pointer field: Points to the patient's current location; locations can be a specific room or bed, or a conceptual area (such as the hallway, parking lot, or radiology department); locations need not be physical locations; this field allows checking for unoccupied beds or areas

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
3.5	MD ASSIGNED	Pointer to the New Person file (#200)		Pointer field: Points to the patient's current physician (provider) assignment
3.6	NURSE ASSIGNED	Pointer to the New Person file (#200)		Pointer field: Points to the patient's current nurse assignment
3.7	RESIDENT ASSIGNED	Pointer to the New Person file (#200)		Pointer field: Points to the patient's current resident assignment
3.8	COMMENT			Free-text field (optional): Contains comments associated with the patient's emergency department stay; users can enter and update this field for patients' current visits; sites can optionally include comments on the display board; this field accepts 1-80 characters

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
4	DISCHARGE DIAGNOSIS	Multiple (230.4)		Contains the patient's diagnosis or diagnoses for this emergency-department visit; when sites have enabled free-text diagnoses, EDIS stores patients' diagnoses lists in this field; when sites have enabled coded diagnoses, this field holds patients' diagnoses until their PCE visits become available, after which EDIS transfers their diagnoses lists to PCE; in this latter case, PCE becomes the real holder of patients' diagnoses lists; however, the lists remain synchronized with EDIS to cover rare cases in which sites change parameter settings to allow free-text diagnoses; the parameter that controls diagnoses lists is in the Tracking Area file (#231.9)
8	ORDERS	Multiple (230.08)		Tracks orders during the course of the patient's emergency-department visit; an order-entry event monitor populates this multiple and identifies orders that are related to patients' current emergency-department visits; the event monitor enables EDIS display boards to offer up-to-date order-related information with every display-board refresh; it also allows reports to track the history of orders related to emergency-department visits

*Discharge Diagnosis 230.04*

Sites have the option to synchronize patients' diagnoses with PCE. If diagnoses are synchronized, every time a diagnosis changes in EDIS, the application passes the change to PCE. If sites do not synchronize patients' diagnoses with PCE, EDIS

simply keeps patient-diagnoses lists in this file. Clinical staff can later access the file's contents and enter patients' diagnoses into PCE.

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.01	DISCHARGE DIAGNOSIS		230.04^B	Free-text field (multiply asked): Contains the free text entries of the patient's discharge diagnoses for the visit If sites set EDIS parameters to require coded diagnoses, the text in this field will match ICD-9-CM text from Clinical Lexicon entries; some entries map to more than one ICD code; \$\$ICDONE^LEXU determines which code to store in this field
.02	ICD9 CODE	Pointer to the ICD Diagnosis file (#80)		Pointer field: Contains ICD-9-CM codes for the patient's diagnoses The application uses Clinical Lexicon utilities to look up diagnoses; some Clinical Lexicon entries map to more than one ICD 9 CM code; EDIS uses \$\$ICDONE^LEXU to determine which code to store here; this becomes the code that EDIS stores in PCE The diagnosis-coding system will likely switch from ICD-9-CM to SNOMED CT in the future
.03	PRIMARY			A setting: (0) No (secondary) (1) Yes (primary) This setting indicates which diagnosis is the primary diagnosis

Orders 230.08

The order-entry event monitor identifies orders that are related to patients' current emergency-department visits and populates this multiple with these orders. This subfile enables EDIS to quickly update display boards (which EDIS refreshes every few seconds to provide up-to-date order-status information). It also allows EDIS reporting functionality to track the history of orders that are related to patients' emergency-department visits.

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.01	ORDER		230.08^B AO (#784)	Free-text field (multiply asked): Contains order IDs for patients' emergency-department-related orders (order IEN); EDIS uses this field to locate orders when the event monitor needs to update them
.02	SERVICE		230.08^AC	A setting: M (medication) L (lab) R (radiology) C (consult) A (all others) Provides a general identification of the service to which orders are related and allows quick checks for orders associated with the patient's emergency-department visit
.03	STATUS			A setting: N (new) A (active) C (complete) Provides the general status of orders; sites can use order status to highlight orders on the display board, enabling sites to monitor the board for orders that have been outstanding for too long

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.04	STAT			A setting: 1 (STAT) 0 (not STAT) A setting of 1 indicates stat orders; sites can optionally use colors to highlight stat orders on the display board
.05	RELEASE TIME			Date-and-time field: Contains the date and time of an order's release to its service; allows sites to monitor orders for delay

**Record Indices for File #230.**

Record Index	Indexed Fields	Description
AC (#787)	SITE, AREA, IEN (active entries only)	EDIS uses this index to list patients with currently active entries on the display board
ADUP1 (#788)	SITE, AREA, LASTNAME, IEN (active entries only)	EDIS uses this index to contribute patients' last names to the ADUP cross reference, which helps identify patients with similar names or similar brief identities (X9999 formatted identifiers)
ADUP2 (#789)	SITE, AREA, LAST4, IEN (active entries only)	EDIS uses this index to contribute patients' identifiers in X9999 format
AL (#790)	SITE, AREA, LOC, IEN (active entries only)	EDIS uses this index to check for beds and areas that are currently occupied

Record Index	Indexed Fields	Description
AN (#791)	SITE, AREA, PTNAME, IEN (active entries only)	EDIS uses this index to check patients' active statuses in cases where patients do not have DFNs (as is the case with humanitarian interventions); the application references this index before adding patients to the display board to determine whether or not patients are already on the board
AP (#792)	SITE, AREA, DFN, IEN (active entries only)	EDIS uses this index to test for duplicate entries when users select patients who have DFNs (that is, VistA patients) for addition to the display board
AS (#793)	SITE, AREA, SSN, IEN (active entries only)	EDIS uses this index to see if patients are already on the display board in cases where patients don't have DFNs and users are identifying these patients by their SSNs
ATI (#794)	SITE, TIME IN (for reports)	EDIS uses this index to get a range of visits within a user-specified time range
ATO (#795)	SITE, TIME OUT (for reports)	EDIS uses this index to get a range of visits that were closed within a user-specified time span
PDFN (#801)	SITE, AREA, DFN, IEN (for all patients)	This index organizes all entries by patient DFN. When EDIS performs special lookups against the patient file (by SSN, for example), the lookup service returns a DFN; this index allows EDIS to find visits that correspond to these DFNs; the index contains all visit entries (closed and active)
PN (#796)	SITE, AREA, PTNAME, IEN (for all patients)	EDIS uses this index of <i>all</i> patient names—including the names of patients who do not have DFNs—for selecting patients when visits (closed or otherwise) need to be corrected.



#### 5.2.1.2. ED Log History (230.1)

The ED Log History file provides a forward- and reverse-chronological list of updates to each emergency-department log record. The timestamps contained in this file make it possible to generate a variety of reports.

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.01	LOG ENTRY	Pointer to the ED Log file (#230)	230.1^B ADF (#797)	Pointer field: Points to an entry in the ED Log file; file entries record modifications (updates) to entries in the ED Log file
.02	TIME		ADF (#797)	Time-and-date field: Contains the time and date of the log record's last modification (if the patient's log record was modified)
.03	ENTERED BY	Pointer to the New Person file (#200)		Pointer field: Contains the identities of users who have updated log data
.04	PATIENT NAME			Free-text field: The updated value of the patient's name (if updated)
.05	PATIENT SSN			Free-text field: Contains the updated value of the patient's social security number (if updated)  The class-three product recorded Social Security numbers when patients without DFNs came to the emergency room; EDIS is not currently using this field; the field is present for the sake of compatibility with the class-three version  Patients' DFNs are their IENs in the Patient file (#2)

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.06	PATIENT ID	Pointer to the Patient file (#2)		Pointer field: Points to the updated value of the patient's DFN (if updated)
.07	COMPLAINT			Free-text field: Contains the updated value of the patient's display-board complaint (if updated)
.08	TIME IN			Time-and-date field: Contains the updated value of the patient's arrival time (if updated)
.09	TIME OUT			Time-and-date field: Contains the updated value of the patient's departure time (if updated)
.1	ARRIVAL MODE	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the updated value of the source of the patient's visit (a nursing home or hospital ward, for example—if updated)
.11	DISPOSITION	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the updated value of the patient's disposition (if updated)
.12	DELAY	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the updated reason that the patient's stay exceeded the maximum stay limit (if updated)
.14	CLINIC	Pointer to the Hospital Location file (#44)		Pointer field: Points to the updated value of the clinic location (if updated)
2	COMPLAINT (LONG)			Free-text field: Contains the updated value of the patient's long complaint (if updated)

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
3.2	STATUS	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the updated value of the patient's status (if updated)
3.3	ACUITY	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the updated value of the patient's acuity (if updated)
3.4	LOC	Pointer to the Tracking Room-Bed file (#231.8)		Pointer field: Points to the updated value of the patient's room, bed, or area assignment (if updated)
3.5	MD ASSIGNED	Pointer to the New Person file (#200)		Pointer field: Points to the identity of the patient's updated emergency-department physician assignment (if updated)
3.6	NURSE ASSIGNED	Pointer to the New Person file (#200)		Pointer field: Points to the patient's updated nurse assignment (if updated)
3.7	RESIDENT ASSIGNED	Pointer to the New Person file (#200)		Pointer field: Points to the patient's updated resident assignment (if updated)
3.8	COMMENT			Free-text field Contains updated comments associated with the patient's emergency-department visit (if any—comments are optional)
9.1	MODIFIED FIELDS			Free text field: Contains a list of fields that users modified in the corresponding ED LOG record at the time of the update; the list contains field numbers and is semicolon delimited

**Record Indices for File 230.1.**

Record Index	Indexed Fields	Description
ADF (#797)	LOG, TIME, IEN	This index provides a forward-chronological list of updates to the log record of a single entry in the ED Log file.

5.2.1.3. Tracking Staff (231.7)

The Tracking Staff file contains staff assignments for particular areas (currently sites' emergency departments). It allows for concise staff-selection lists and enables sites to associate colors with staff members so that emergency-department personnel can more easily tell which staff members are assigned to which patients.

Field Number	Field Name	Pointers	Cross Reference	Description
.01	PERSON	Pointer to the New Person file (#200)	231.7^B AD (#807)	Pointer field: Points to the identity of a person who is assigned to work as staff in the emergency department (required)
.02	INSTITUTION	Pointer to the Institution file (#4)	AC (#800) AD (#807)	Pointer field: Points to entries in the Institution file (#4); allows each station to have its own set of staff assignments
.03	AREA	Pointer to the Tracking Area file (#231.9)	AC (#800) AD (#807)	Pointer field: Points to the area to which the person is assigned as staff  EDIS currently supports only emergency departments but is capable of supporting other areas in the future
.04	INACTIVE		AD (#800)	A setting: 0 (active) 1 (inactive)  A setting of 1 indicates that the person is no longer an active staff member in the associated area

Field Number	Field Name	Pointers	Cross Reference	Description
.06	ROLE		AC (#800)	A setting: P (provider) R (resident) N (nurse) A setting of <i>P</i> , <i>R</i> , or <i>N</i> indicates that the staff member's role is provider, resident, or nurse, respectively
.08	COLOR			Free-text field: Contains red-green-blue (RGB) values for the foreground and background colors (if any) that sites have used to highlight the staff member's identifier on the display board Colors are hexadecimal; this field accepts values having the following format: <use color>,<foreground color>,<background color> (for example, the following entry specifies a red foreground and a white background: 1, 0xff0000,0xffff)

#### Record Indices for File 231.7

Record Index	Indexed Fields	Description
AC (#800)	SITE, AREA, ROLE, IEN	This index enables EDIS to construct a list of currently active staff for a particular role
AD (#807)	SITE, AREA, DUZ, IEN	This index allows EDIS to search the file for an entry that matches a particular DUZ (user ID)—to look up a color map, for example; a given person may work as staff in multiple areas; this index allows EDIS to find the staff record that applies to the person's activity in a certain area

#### 5.2.1.4. Tracking Room-Bed (231.8)

As patients progress through their visits, they may stop at a number of areas. The Tracking Room-Bed file allows sites to set up these areas in EDIS so that they can track patients throughout their visits. Areas can be physical or

conceptual, and may include specific beds, waiting areas, and other areas of the hospital (radiology, exam rooms, and so forth).

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.01	NAME		231.8^B	Free-text field (required): The internal name of the room, bed, or area that the patient is occupying at this stage of his visit
.02	INSTITUTION	Pointer to Institution file (#4)	AC (#802) C (#803)	Pointer field: Allows each station (division, for example) to manage its own set of rooms, beds, and areas
.03	AREA	Pointer to the Tracking Area file (#231.9)		Pointer field: Points to the hospital area associated with this room, bed, or area; EDIS currently supports only the emergency department, but will probably support additional areas in the future  Trainers can use this field to set up separate areas for each trainee, allowing each trainee to configure his or her own set of rooms and beds
.04	INACTIVE			A setting: 0 (active) 1 (inactive)  A setting of 1 makes the associated room or area unavailable for selection in EDIS; however, inactive rooms and areas still appear on reports and in views for previous entries
.05	SEQUENCE			A number: Represents the sequential order in which EDIS should display the associated room or area on the big-board display; the field accepts numbers from one (1) to 9999

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.06	DISPLAY NAME		AC (#802)	Free-text field: Contains the name of the room or area as it should appear on the big-board display; display names should be concise to save display-board space; supports names from 1–30 characters in length
.07	DISPLAY WHEN			A setting: 0 (occupied) 1 (always) 2 (never) A setting of 0, 1, or 2 determines whether EDIS should display the associated room or area when occupied, always, or never, respectively
.08	DEFAULT STATUS	Pointer to the Tracking Code file (#233.1)		Pointer field: Points to the default status (if any) of the room, bed, or area; when sites select a default status for a room, bed, or area, EDIS automatically assigns this default status to patients who are occupying the room, bed, or area

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.09	MULTIPLE ASSIGN			<p>A setting:</p> <p>0 (single—accepts one patient assignment at a time)</p> <p>1 (multiple—accepts multiple simultaneous patient assignments)</p> <p>2 (waiting—a special case of the multiple-assignments designation for reporting)</p> <p>3 (single, non-ED—single-assignment designation in an area outside the emergency department)</p> <p>4 (multiple, non-ED—multiple-assignment designation in an area outside the emergency department)</p>
.1	SHARED NAME			<p>Free-text field:</p> <p>Contains a common name for several beds or areas that share the same physical space; using a shared name in such cases allows sites to run reports that identify patients and staff who are at risk for exposure to contagious organisms</p>
.11	BOARD			<p>Free-text field:</p> <p>Contains the name of the particular display board on which the room or area is to appear</p>
.12	COLOR			<p>Free-text field:</p> <p>Contains values for colors; allows sites to map specific rooms and areas to particular foreground and background colors for use with the display-board's room-bed-area list; this field accepts values that have the following format: &lt;use color&gt;,&lt;foreground color&gt;,&lt;background color&gt; (for example, the following entry specifies a red foreground and a white background: 1, 0xff0000,0xfffff)</p>



### Record Indices for 231.8

Record Index	Indexed Fields	Description
AC (#802)	SITE, AREA, DISPLAYNAME, IEN	This index enables EDIS to search for a room or area (when setting baseline parameters, for example) based on a specific abbreviation (AMBU or WAIT, for example)
C (#803)	INSTITUTION, AREA	This index allows EDIS to collect all of the rooms for a specific area within a division (station number)

#### 5.2.1.5. Tracking Area (231.9)

This file contains parameters that control EDIS's tracking behavior. It also contains XML descriptions that client software uses to control display-board column appearance, row content, and cell color. The AREA field (#.03) of the ED Log file (#230) points to this file.

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
.01	NAME		231.9^B	Free-text field Contains the name of an area within the hospital; EDIS currently supports only sites' emergency department areas
.02	INSTITUTION	Pointer to Institution file (#4)	231.9^C	A pointer field: Allows each station within a given VistA system to have its own set of areas
.03	LAST UPDATE			Date-and-time field: Contains the date and time that the site last updated the display-board configuration; this helps client software determine if it is necessary to reload configuration parameters
1.1	DIAGNOSIS REQUIRED			A setting: 0 (no) 1 (yes) A setting of 1 indicates that users must enter diagnoses before removing patients from the display board

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
1.11	AMBULANCE	Pointer to Tracking Room-Bed file (#231.8)		Pointer field: Points to the entry in the Tracking Room-Bed file that represents an arriving ambulance
1.12	INITIAL ROOM	Pointer to Tracking Room-Bed file (231.8)		Pointer field: Points to the tracking-file entry that specifies the default room or area (often the waiting room) to which patients are first assigned
1.2	CODED DIAGNOSIS			A setting: 0 (no—free-text) 1 (yes—ICD-9-CM) A setting of 1 indicates that users must enter diagnoses using ICD-9-CM codes before removing patients from the board; otherwise, users may enter free-text diagnoses
1.3	DISPOSITION REQUIRED			A setting: 0 (no) 1 (yes) A setting of 1 indicates that users must enter patients' dispositions before removing them from the display board
1.4	DELAY REQUIRED			A setting: 0 (no) 1 (yes) For patients whose emergency-department stays have exceeded the number of minutes identified in the DELAY MINUTES field (#1.5), unless patients are admitted to an observation ward, a setting of 1 indicates that users must select a reason for delay before removing the patients from the display board

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
1.5	DELAY MINUTES			Number field: Contains the number of minutes after which EDIS requires a reason for delay as a precondition for removing patients from the display board; accepts whole numbers between 1 and 1440
1.6	FIRST SHIFT START			Number field: Contains the number of minutes from midnight to the first shift's starting time; accepts whole numbers between 0 and 1440; EDIS currently assumes that all shifts are of equal length
1.7	SHIFT DURATION			Number field: Contains the number of minutes that comprise the duration of a shift; accepts whole numbers between 0 and 1440; for eight-hour shifts, the value recorded in this field will be 480 (8*60)
1.8	PROMPT RESIDENTS			A setting: 0 (no) 1 (yes) A setting of 1 indicates that the application must prompt users to enter resident assignments (in addition to provider assignments)
1.9	PROMPT CLINICS			A setting: 0 (no) 1 (yes) A setting of 1 (yes) indicates that the application must prompt users to select a clinic; this allows EDIS to create visits based on explicitly selected clinics
3	COLOR SPEC			Word-processing field (#231.93) (no wrap): Contains an XML document that maps colors to display-board values
4	DISPLAY BOARD CONFIGURATION	Multiple #231.94		Contains an XML description of each display board's definition

Field Number	Field Name	Pointers	Cross References and Record Indices	Description
230.1	TRACKING UPDATED			Free-text field: Contains a timestamp; EDIS sets this timestamp each time it updates the data on any display board for a given area
231.1	CHOICES UPDATED			Free-text field: Contains a timestamp; EDIS sets this timestamp each time users modify the definition of any display board for a given area

*Display Board Configuration Subfile (231.94)*

Field Number	Field Name	Pointers	Cross Reference	Description
.01	NAME		231.94^B	Free-text field: Contains the name of a specific display board
1	SPEC			Word-processing field #231.941 (no wrap): Contains the XML description for a specific display board

5.2.1.6. Tracking Code (233.1)

The Tracking Code file contains entries that EDIS tracking functionality uses in selection lists. The software may eventually roll up selection-list entries to the emergency-department director for reporting.

The following files point to the Tracking Code file:

ED Log file (#230)	ARRIVAL MODE field (#.1)
ED Log file	DELAY REASON field (#1.2)
ED Log file	STATUS field (#3.2)
ED Log file	ACUITY field (#3.3)
ED Log History file (#230.1)	ARRIVAL MODE field (#.1)
ED Log History file	DISPOSITION field (#.11)
ED Log History file	DELAY field (#.12)
ED Log History file	STATUS field (#3.2)
ED Log History file	ACUITY field (#3.3)
Tracking Room-Bed file (#233.1)	DEFAULT STATUS field (#.08)

Tracking Code file (#233.1)  
Tracking Code Set (#233.2)

NATIONAL CODE field (#.04)  
CODE field (#.02) of the CODES  
subfield (233.21)

Field Number	Field Name	Pointers	Cross References	Description
.01	NAME		233.1^B	Free-text field: Contains unique names for values in the selection lists that EDIS is using  To distinguish local list selections from national list selections, EDIS prefixes locally defined entries with sites' station numbers and nationally defined entries with the letters <i>edp</i>
.02	DISPLAY NAME		AB (#804) AC (#805)	Free text field: Contains the selection's display-board name
.03	ABBREVIATION		AB (#804)	Free-text field: Contains display-name abbreviations that EDIS uses in some reports
.04	NATIONAL CODE	Pointer to Tracking Code file (#233.1)		Free-text field: Will contain mappings from site-defined codes to national codes when national codes exist
.05	FLAGS			EDIS uses flags to further classify specific codes; possible flags are: M (Missed opportunity) A (Admission) VA (VA admission) O (Observation) EDIS allows multiple flags with no delimiters
2	DESCRIPTION			Word processing field (#233.12): Contains a further explanation: allows sites to further explain codes (233.12)

### Record Indices for Tracking Code File (#233.1)

Record Index	Indexed Fields	Description
AB (#804)	NAME (without prefix), ABBREVIATION	This index enables EDIS to find all abbreviations for a name, without regard to prefix; prefixes are <i>edp.</i> for nationally exported names and <i>nnn.</i> for local names, where <i>nnn.</i> is the station number
AC (#805)	NAME (without prefix), DISPLAY NAME	This index allows EDIS to find all display names for a name, without regard to site prefix; prefixes are <i>edp.</i> for nationally exported names and <i>nnn.</i> for local names, where <i>nnn.</i> is the station number

#### 5.2.1.7. Tracking Code Set (233.2)

The Tracking Code Set file contains collections of codes that represent specific selection lists (acuties, patient statuses, dispositions, delay reasons, and so forth) used within EDIS.

Field Number	Field Name	Pointers	Cross References	Description
.01	NAME		233.2^B	Free-text field (required): Contains the names of tracking code sets that EDIS uses in selection lists; sites may modify selection lists to meet their needs
1	CODES	Multiple (#233.21)		Contains lists of codes that are available in selection lists

#### Codes (233.21)

Field Number	Field Name	Pointers	Cross References	Description
.01	SEQUENCE		233.21^B	Number field (multiply asked): Contains a number that indicates the order in which the associated code should appear in the selection list; accepts whole numbers between 1 and 9999

Field Number	Field Name	Pointers	Cross References	Description
.02	CODE	Pointer to the Tracking Code file (#233.1)	233.2^AS^MUMPS	Pointer field: Points to codes that are to be included in selection lists
.03	INACTIVE			A setting: 1 (inactive) 0 (active) A setting of 1 indicates codes that are temporarily inactivated
.04	NAME AT SITE		233.2^AS^MUMPS	Free-text field: Contains site-specific names; allows sites to use different names for display purposes without changing underlying national codes
.05	ABBREVIATION AT SITE		233.2^AS^MUMPS	Free-text field: Contains site-specific abbreviations; allows sites to use different abbreviations for national-code abbreviations without changing the underlying meaning of the national codes

## 6. Exported Remote Procedure Calls

### 6.1. EDIS Remote Procedure Calls

#### 6.1.1. EDPCBRD

This RPC acts as the front controller for the EDIS display board. It accepts requests that the Java middle tier initially passes to the EDIS Web server. The RPC uses these parameters to determine which command to execute. EDPCBRD allows proxy-user access.

Input parameter `SESS` identifies requesting users and sites, which the application passes in via its Java middle tier.

Input parameter `PARAMS` is a list of the parameters that the application passes to the Java middle tier via Hypertext Transfer Protocol (HTTP) post messages.

EDPCBRD RPC formats and returns data as Extensible Markup Language (XML) documents. The XML structure varies based on the nature of the data request.

#### 6.1.2. EDPCTRL

This RPC acts as the front controller for the EDIS tracking application. It accepts requests that the Java middle tier initially passes into the EDIS Web server. The RPC uses the `PARAMS` parameter to determine which command to execute. The `PARAMS` parameter is a list of the parameters that users pass to the system's Java middle tier via HTTP post messages. The RPC's returned data are formatted as XML documents, the structure of which varies based upon the types of data requests.



## 7. Exported Options

### 7.1. EDIS Options

Name	Type	Description
EDP CONVERSION	Run Routine	Allows sties to trigger the conversion of local data in their ^DIZ(1720xx) files to the new EDIS files; the option uses routine EDPFMOVE, which transfers local configuration data first, followed by all currently open visits; EDPFMOVE also queues a task to copy closed visits, thus permitting reporting functionality to run normally Uppercase menu text: CONVERT LOCAL ER DATA TO EDIS
EDPF BIGBOARD KIOSKS	Action	Allows facilities to edit the EDPB BIGBOARD KIOSKS parameter; editing parameter values via XPAR utilities is prohibited Entry Action: D EN^EDPBKS Uppercase menu text: DISPLAY BOARD KIOSKS
EDPF TRACKING MENU ALL	Menu	Provides access to all EDPF TRACKING VIEW options Timestamp: 61055,41714 Uppercase menu text: ALL TRACKING VIEWS
EDPF TRACKING MENU CLINICIAN	Menu	Provides access to EDPF TRACKING VIEW options typically associated with clinicians (the <b>Update</b> , <b>Disposition</b> , and <b>Display Board</b> views) Timestamp: 61055,41714 Uppercase menu text: CLINICIAN TRACKING VIEWS
EDPF TRACKING MENU SIGNIN	Menu	Provides access to the EDPF TRACKING VIEW options associated with signing in patients to the emergency department (the <b>Sign In</b> and <b>Display Board</b> views) Timestamp: 61055,41714 Uppercase menu text: SIGN-IN TRACKING VIEWS
EDPF TRACKING MENU TRIAGE	Menu	Provides access to the EDPF TRACKING VIEW options associated with triaging patients (the <b>Triage</b> and <b>Display Board</b> views) Timestamp: 61055,41714 Uppercase menu text: TRIAGE TRACKING VIEWS
EDPF TRACKING SYSTEM	Broker (client-server)	A context option for EDIS remote procedure calls (RPCs) at local facilities; the option uses EDPCTRL RPC and EDPCBRD RPC; assigning any EDPF TRACKING MENU or EDPF TRACKING VIEW option implicitly provides users with access to this option Uppercase menu text: EDIS VERSION 1.0-T28

Name	Type	Description
EDPF TRACKING VIEW BOARD	Menu	Provides access specifically to the EDIS <b>Display Board</b> view Timestamp: 61514,54336 Uppercase menu text: DISPLAY BOARD
EDPF TRACKING VIEW CONFIGURE	Menu	Provides access specifically to the EDIS <b>Configure</b> view Timestamp: 61514,54336 Uppercase menu text: CONFIGURE TRACKING BOARD
EDPF TRACKING VIEW DISPOSITION	Menu	Provides access specifically to the EDIS <b>Disposition</b> view Timestamp: 61514,54336 Uppercase menu text: DISPOSITION PATIENT
EDPF TRACKING VIEW EDIT CLOSED	Menu	Provides access specifically to the EDIS <b>Edit Closed</b> view, which allows users to change any emergency department visit; assign this view to users who are authorized to correct data discrepancies; access should be limited; EDIS logs all changes Timestamp: 61514,54336 Uppercase menu text: EDIT CLOSED PATIENT
EDPF TRACKING VIEW REPORTS	Menu	Provides access specifically to the EDIS <b>Reports</b> view; security keys further restrict access to some reports Timestamp: 61514,54336 Uppercase menu text: TRACKING REPORTS
EDPF TRACKING VIEW SIGNIN	Menu	Provides access specifically to the EDIS <b>Sign In</b> view Timestamp: 61514,54336 Uppercase menu text: SIGN IN PATIENT
EDPF TRACKING VIEW STAFF	Menu	Provides access specifically to the EDIS <b>Assign Staff</b> view for configuring staff assignments Timestamp: 61514,54336 Uppercase menu text: ASSIGN STAFF
EDPF TRACKING VIEW TRIAGE	Menu	Provides access specifically to the EDIS <b>Triage</b> view Timestamp: 61514,54336 Uppercase menu text: TRIAGE PATIENT
EDPF TRACKING VIEW UPDATE	Menu	Provides access specifically to the EDIS <b>Update</b> view Timestamp: 61514,54336 Uppercase menu text: UPDATE TRACKING BOARD
EDPS BOARD CONTEXT	Broker (client-server)	Uses EDPCBRD RPC to set the tracking board's context Uppercase menu text: ED TRACKING BOARD CONTEXT

Name	Type	Description
EDPSERVER	Server	Uses the EDPMAIL routine to process incoming scheduling events from VA MailMan Uppercase menu text: PROCESS INCOMING SCHEDULING EV

## 7.2. Include EDIS Options in Users' Menu Trees

Include one or more of the following options in each user's menu tree:

- EDPF TRACKING MENU ALL
- EDPF TRACKING MENU CLINICIAN
- EDPF TRACKING MENU SIGNIN
- EDPF TRACKING MENU TRIAGE
- EDPF TRACKING VIEW BOARD
- EDPF TRACKING VIEW CONFIGURE
- EDPF TRACKING VIEW DISPOSITION
- EDPF TRACKING VIEW EDIT CLOSED
- EDPF TRACKING VIEW REPORTS
- EDPF TRACKING VIEW SIGNIN
- EDPF TRACKING VIEW STAFF
- EDPF TRACKING VIEW TRIAGE
- EDPF TRACKING VIEW UPDATE

*Note: The KIDS installation process rebuilds VistA menu trees before you assign new EDIS menus. You must therefore perform a menu rebuild after you assign these menus for the first time. If you do not, graphical user interface (GUI) applications like EDIS won't know who has access to the new options. Again, performing a menu rebuild is necessary only once, and only for menus that have never before been assigned.*

### 7.2.1. Assign EDIS Views to Users

Work with your site's clinical application coordinators (CACs) and emergency-department managers to gather a list of EDIS users and determine which views each user needs. Assign to each user only views that he or she needs.

1. Log in to VistA.
2. At the **Select OPTION NAME** prompt type *eve* and then press the <Enter> key.
3. At the **Choose 1-5** prompt, type *1* (for **EVE Systems Manager Menu**) and press the <Enter> key.
4. At the **Select Systems Manager Menu Option** prompt, type *User Management* and press the <Enter> key.
5. At the **Select User Management Option** prompt, type *edit* (for **Edit an Existing User**) and press the <Enter> key.
6. At the **Select NEW PERSON NAME** prompt, type the user's name using the following format: *lastname,firstname*. Press the <Enter> key. VistA displays the **Edit an Existing User** dialog.
7. In the **Edit Existing User** dialog, press the <Down Arrow> key to highlight the **Select SECONDARY MENU OPTIONS** field. (Type a question mark [?] to see a list of the secondary options that are currently assigned to the user.)

8. Type in the secondary menu options field one of the options listed above and then press the <Enter> key:
9. At the **Are you adding ...as a new SECONDARY MENU OPTIONS (the...for this NEW PERSON)? No//** prompt, type *Yes* and press the <Enter> key.
10. Press the <Enter> key again to accept this new option.
11. In the **SYNONYM** field, type a synonym for the option (optional). Press the <Enter> key.
12. Press the <Enter> key to close the **COMMAND** field and return to the **Select SECONDARY MENU OPTIONS** field.
13. Repeat steps 8 through 11 to assign other options as necessary.
14. Press the <Down Arrow> key to move through the **Edit Existing User** dialog. At the end of each page, type the letter *n* in the **COMMAND** field to enter the following page.
15. Stop on page 3.
16. Check the user's person class, which appears on page 3, to make sure the user's person class is active.
17. If the user's person class is not active, select an active person class for the user.
18. When you have entered all applicable secondary menu options and verified that the user has an active person class, type the word **Exit** in the **COMMAND** field.
19. At the **Save changes before leaving form (Y/N)?** prompt, type the letter *Y* and press the <Enter> key.

## 8. Security

### 8.1. KAAJEE

EDIS uses Kernel Authentication and Authorization for J2EE (KAAJEE) to authenticate users. KAAJEE enables Java applications to use VistA security features. Specifically, it authenticates users against your local VistA (M) system and uses VistA options and security keys to authorize access to role-based functionality. KAAJEE also transforms VistA login credentials into J2EE-compatible login credentials. For more information about KAAJEE, visit <http://vista.med.va.gov/kernel/kaajee>.

### 8.2. Secure Sockets Layer

EDIS uses Secure Sockets Layer (SSL) to secure communications between the EDIS Web server and sites' display boards. To set up these two-way secure communications for each machine that will power a display board, you must first set up the display board to run in kiosk mode. Kiosk mode locks down the machine's user interface to protect the application from accidental or deliberate misuse. You must then contact the VA National Helpdesk at 888.596.4357 or create a Remedy ticket. If you call the helpdesk, please tell the person who answers your call that you are making a display-board setup request. If you create a Remedy ticket, select the *Display Board Setup Request* option.

The helpdesk will add the computer to a group that enables it to automatically receive its SSL certificate for two-way authentication. This group also forces a lockdown on the machine to run in kiosk mode. See section 11 of this manual for detailed instructions on setting up large display boards.

#### 8.2.1. PKI Encryption Basics

To encrypt communications between the EDIS Web-application server and browsers that sites are using to run their display boards, the server and browsers exchange certificates containing their public keys.

After this exchange takes place, the browser sends a random number that it has encrypted using the server's public key. The server decrypts this number using its private key. The browser and server then use this random number to generate session keys, which they use in conjunction with their private keys to encrypt and decrypt data exchanges during the communications session.

### 8.3. Security Keys

#### 8.3.1. EDPF KIOSKS

This security key grants access to the EDPF BIGBOARD parameter. This parameter maps fully qualified computer names to display board names. Sites must add or change values for this parameter via the EDPF BIGBOARD KIOSKS option.

#### 8.3.2. EDPR EXPORT

This security key enables holders to export EDIS reports to Microsoft Excel.

### 8.3.3. EDPR PROVIDER

This security key enables holders to view and run the EDIS Provider report, which lists statistics for each emergency department provider.

### 8.3.4. EDPR XREF

This security key enables holders to view and run the EDIS Cross Reference (XRef) report, which matches emergency department visit numbers with associated patient-identity information.

### 8.3.5. Assign Keys for Emergency Department Users

Assign keys to users who need access to additional reporting capabilities.

1. Log in to Vista
2. At the **Select OPTION NAME** prompt, type *eve* and then press the <Enter> key.
3. At the **Choose 1-5** prompt, type the number *1* (for **EVE Systems Manager Menu**) and then press the <Enter> key.
4. At the **Select Systems Manager Menu Option** prompt, type *menu* (for **Menu Management**) and then press the <Enter> key.
5. At the **Select Menu Management Option** prompt, type the word *key* (for **Key Management**) and then press the <Enter> key.
6. At the **Select Key Management Option** prompt, type the word *allocation* (for **Allocation of Security Keys**).
7. At the **Allocate key** prompt, type the name of the security key you want to assign—*EDPF EXPORT*, for example.
8. At the **Holder of key** prompt, type the name of the first user to whom you are assigning the key and then press the <Enter> key.
9. At the **Another holder** prompt, type the name of a second user to whom you are assigning the key and then press the <Enter> key. Repeat this step for all users to whom you are assigning the key
10. At the **You are allocating keys. Do you wish to proceed? YES//** prompt, press the <Enter> key to accept the default response.

## 9. Protocols

### 9.1. EDIS Protocols

EDP CHECK-IN monitors local Vista systems for Scheduling-package events that indicate VA personnel are checking patients into the emergency department. This protocol is placed on the SDAM APPOINTMENT EVENTS protocol, which is an appointment-event driver.

EDP MONITOR monitors order events for the EDIS display board. This protocol is placed on the \* EVSEND OR protocols to check for updates that ancillary packages send to the Order Entry/Results Reporting package. (The asterisk in the expression \* *EVSEND OR* stands as a placeholder for other package namespaces, such as PS or RA.) It monitors when ancillary packages transmit orders and when they complete the orders.

EDP NEW PATIENT defines variables to support some of the devices that previously monitored SDAM APPOINTMENT EVENTS. The application processes this protocol when users or applications add new patients to the board. Items may look for EDPDATA (EDPDATA = ED Log IEN^DFN^Time In^Hospital Location IEN). This protocol also defines the following variables:

- DFN = Patient file (#2) IEN
- SDT = Time In
- SDCL = Hospital Location file (#44) IEN
- SDATA = ^DFN ^ SDT ^ SDCL
- SDAMEVT = 1 (unscheduled new visit)

EDP OR MONITOR monitors ordering events for the EDIS display board. It is placed on the \* EVSEND OR protocols to look for order numbers that are assigned to new orders from ancillary packages.

EDPF ADD BOARD provides support for an entry action (D ADD^EDPBKS) that adds a display board.

EDPF BIGBOARD MENU defines the menu of actions for the EDPF BIGBOARD KIOSKS list template. This protocol allows facilities to edit the EDPF BIGBOARD KIOSKS parameter. Menu items include:

- EDPF ADD BOARD (sequence 11)
- EDPF REMOVE BOARD (sequence 12)
- EDPF CHANGE BOARD (sequence 21)
- EDPF SELECT DIVISION (sequence 31)
- EDPF QUIT (sequence 32)
- EDPF BLANK 1 (sequence 22)
- EDPF BLANK 2 (sequence 13)
- EDPF BLANK 3 (sequence 23)

EDPF BLANK 1 displays a blank line; EDIS uses this protocol to provide white space on menus. (Item text is three spaces.)

EDPF BLANK 2 displays a blank line; EDIS uses this protocol to provide white space on menus. (Item text is three spaces.)

EDPF BLANK 3 displays a blank line; EDIS uses this protocol to provide white space on menus. (Item text is three spaces.)

EDPF CHANGE BOARD supports entry action D CHG^EDPBKS, which changes a computer name or display board.

EDPF QUIT supports entry action Q, which exits the EDPF BIGBOARD KIOSKS list template.

EDPF REMOVE BOARD supports entry action D REM^EDPBKS, which removes a display board.

EDPF SELECT DIVISION supports entry action D NEWDIV^EDPBKS, which allows the EDIS editor to switch to values for another division.

## 9.2. Other Protocols

FH EVSEND OR sends Health Level 7 (HL7) messages from the Dietetics package to the Order Entry/Results Reporting package.

GMRC EVSEND OR sends consult requests and tracking data to the Order Entry/Results Reporting package.

LR70 CH EVSEND OR sends orders from the Laboratory package to the Order Entry/Results Reporting package.

OR EVSEND FH sends diet-message events.

OR EVSEND GMRC sends consult-message events.

OR EVSEND LRCH sends laboratory-message events.

OR EVSEND ORG sends generic event messages.

OR EVSEND PS sends pharmacy-message events.

OR EVSEND RA sends radiology and imaging events.

PS EVSEND OR sends inpatient and outpatient medication orders from the Pharmacy package to the Order Entry/Results Reporting package.

RA EVSEND OR sends radiology and imaging message events to the Order Entry/Results Reporting package.

SDAM APPOINTMENT EVENTS performs all necessary actions associated with Scheduling-package events (such as patient check in).



## 10. List Templates

---

### 10.1. EDIS List Templates

EDPF BIGBOARD KIOSKS maps fully qualified machine names to the names of EDIS big-board displays.

## 11. Setting up the Large, Electronic Whiteboard Display

EDIS supports large displays that act as electronic whiteboards to help track patients through their visits. These big-board displays are usually large plasma or liquid crystal display (LCD) monitors. You should place these display boards carefully, with consideration for the type of information each board is configured to display. Take care to place your boards so that confidential patient data isn't in view of people who are not authorized to see it.

Large display boards run in kiosk mode—a method of operation designed for Internet kiosks and other settings where limiting end-user interactions with applications is advisable. Kiosk mode locks down the user interface to protect applications from accidental or deliberate misuse.

To set up your big-board display, you will:

- Confirm software prerequisites
- Make hidden files and folders visible
- Configure the big-board's power, screensaver, and sound settings
- Add your local IRM security group to the machine's local Administrator group
- Add your machine to its own local Administrator group
- Configure auto login and auto-login lockdown for your big-board display
- Configure kiosk mode in Vista

Following are steps for setting up a large (big-board) display.

### 11.1. Confirm Software Prerequisites

The EDIS project team recommends using a machine that's running a fresh installation of the VA's gold image, which includes Adobe Flash Player and Internet Explorer (IE). Flash Player and IE must be running on the machine that you set up to run the big-board display.

*Note:* You'll be connecting this machine to the VHAMASTER domain instead of your VISN domain.

### 11.2. Make Hidden Files and Folders Visible

Before you set up your site's big-board display to run in kiosk mode, you'll need to configure the machine's power, sound, and screensaver settings. As a first step, please make sure your system's hidden files and folders are visible.

Go to C:\Documents and Settings. If you can see the Default User folder, skip to Section 1.3. If you cannot see this folder, please take the following steps:

1. Double-click the **My Computer** icon on your machine's desktop.
2. Double-click **Local Disc (C:)** under the **Hard Disk Drives** heading.
3. Click **Tools** on the main menu.

4. Select **Folder Options** on the **Tools** menu. Windows displays the **Folder Options** dialog box.

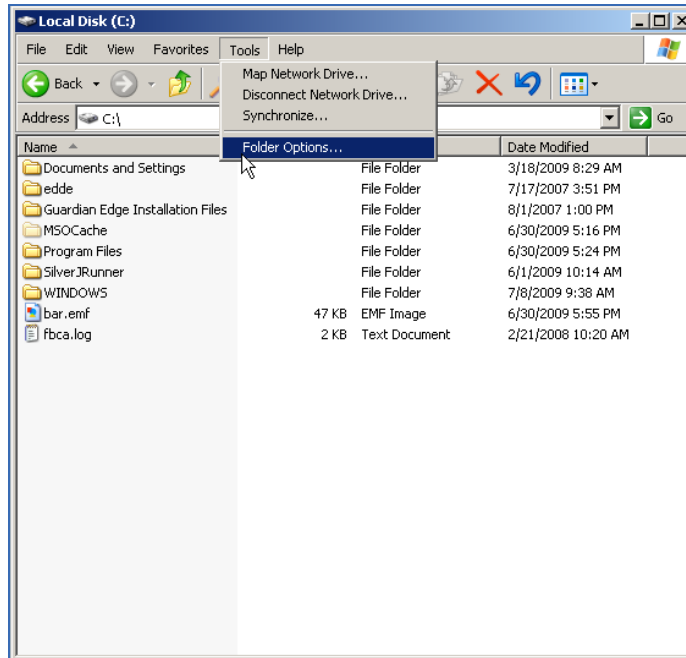


Figure 2: The Tools menu.

5. Select the dialog's **View** tab.

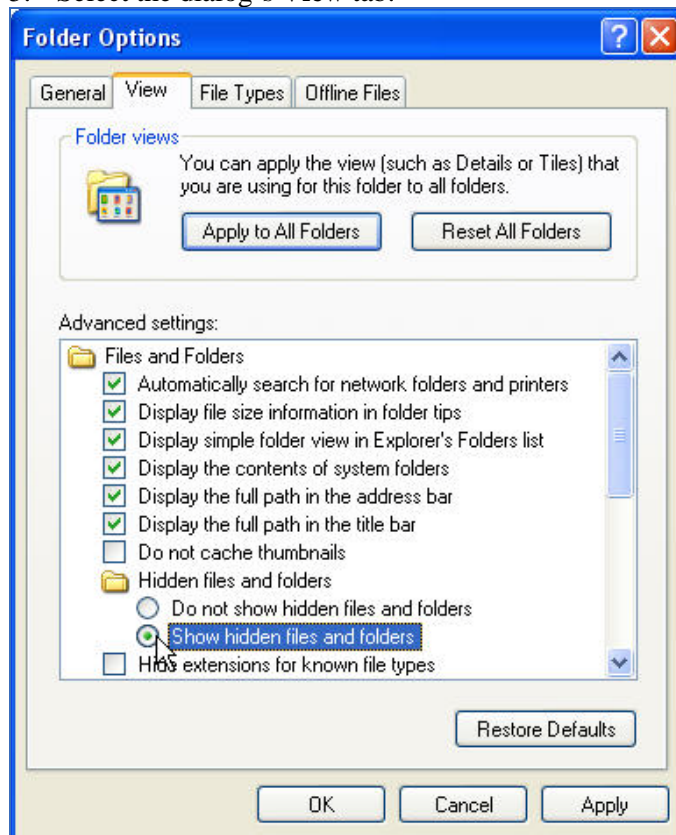


Figure 3: The Folder Options dialog box.

6. Click the **Hidden files and folders** folder.
7. Select **Show hidden files and folders**.
8. Click **Apply to All Folders** in the **Folder Views** box.
9. Click **Apply**. Windows displays the **Folder views** dialog box, which asks if you want to set all of the folders on your computer to match the current folder's view settings.
10. Click **Yes**.
11. Click **OK**.

### 11.3. Configure the Machine's Power, Sound, and Screensaver Settings

You'll need to create a new user account to set up restrictions for the system's power, sound, and screensaver settings. When you're finished, you'll copy the new user's profile to your Default User Profile folder, after which you can delete the new user's account if you want to.

Take the following steps on the machine that will power your site's big-board display:

1. Log in as a site or machine administrator. You must have local administrator rights to set the machine's power schema.
2. Right-click the **My Computer** icon on the machine's desktop and select **Manage**. Windows displays the **Computer Management** dialog box.
3. In the left-hand side of the pane, click to expand **Local Users and Groups** (under **System Tools**.)
4. Click to open the **Users** folder.
5. Click **Action** on the dialog box's main menu and select **New User**. The Windows system displays the **New User** dialog box.

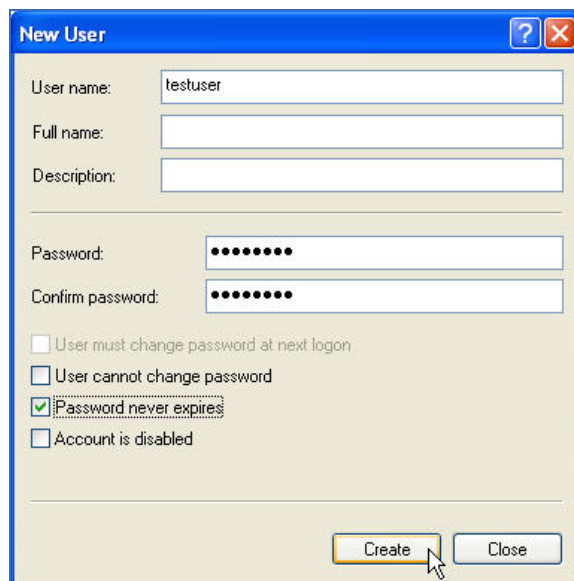
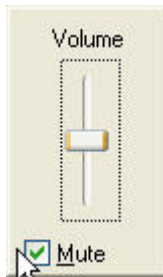


Figure 4: The New User dialog box.

6. Type *testuser* in the **User name** box.
7. Type a password for the testuser account in the **Password** box.
8. Type the same password in the **Confirm password** box.
9. Cancel the selection of the **User must change password at next logon** box.
10. Select the **Password Never Expires** box.
11. Click **Create**.
12. Click **Groups** in the left-hand pane.
13. Double-click **Administrators** in the right-hand pane.
14. Click **Add**. The Windows system displays the **Select Users, Computers, or Groups** dialog box.
15. Click **Object Types** and select the **Users** checkbox.
16. Click **Locations** and select the computer's name.
17. Click **OK**.
18. In the **Enter the object names to select (examples)** box, type *testuser*.
19. Click **OK**. *Testuser* should appear in the **Members** list.
20. Click **Apply**.
21. Log off the current administrator account.
22. Log in using the newly created testuser account.

#### 11.3.1. Change the Sound Control Setting to Mute

1. Click the **Volume** icon in the system tray.
2. Select the **Mute** checkbox.



**Figure 5: The Windows volume control tool.**

#### 11.3.2. Change Background and Screensaver Settings to None

Right-click anywhere on the Windows desktop and select **Properties**. Windows displays the **Display Properties** dialog box.

1. Select the **Desktop** tab.
2. In the **Background** selection box, select **(None)**.
3. Click **Apply**.

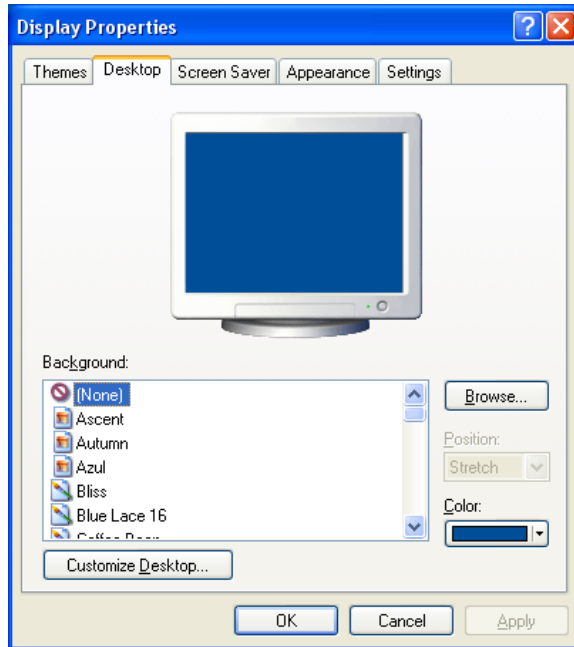


Figure 6: The Display Properties dialog box, Desktop tab.

4. Select the **Screen Saver** tab.
5. Select **(None)** in the **Screen Saver** drop-down list.
6. Click **Apply**.

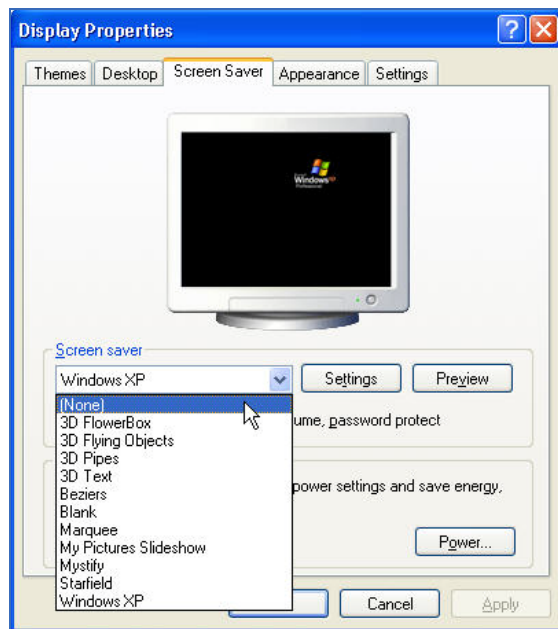
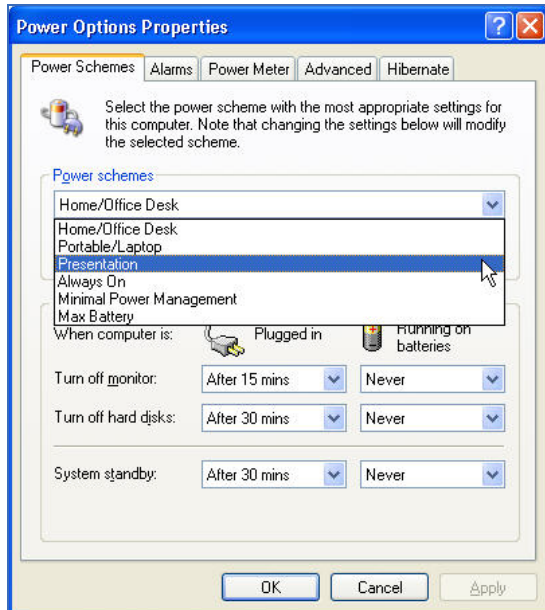


Figure 7: The Display Properties dialog box, Screen Saver tab.

7. Click the **Power** button in the **Monitor Power** box. Windows displays the **Power Options Properties** dialog box.
8. On the **Power Schemes** tab, expand the **Power** schemes drop-down list and select **Presentation**.

*Note:* When you choose the **Presentation** scheme, please make sure that power settings in the **Settings for Presentation power scheme** box—**Turn off monitor**, **Turn off hard disks**, and **System standby**—are all set to **Never** under the **Plugged in** profile.

9. Click **Apply**.
10. Click **OK**.



**Figure 8: The Power Options Properties dialog box.**

11. In the **Display Properties** dialog box, select the **Settings** tab.
12. Select the best screen resolution for your monitor.

*Note:* Please make note of the screen resolution you select. You will need this information when you configure big-board display options in Vista. (Please see “Add a Display Board Size” in the EDIS installation guide for instructions on how to add a display-board size using the EDPF SCREEN SIZES parameter. For instructions on how to configure a display board’s screen size via the application’s **Configure** view, see the EDIS user guide’s “Add a New Display Board” section.)

13. Click **Apply**.
14. Click **OK**.

### 11.3.3. Copy the Testuser Profile Account into the Default User Account

1. Log off the testuser account and log in to the local administrator account.
2. Right-click on the **My Computer** icon and select **Properties**. Windows displays the **System Properties** dialog box.
3. Select the **Advanced** tab.
4. Click the **Settings** button in the **User Profiles** box.
5. Select the testuser profile and click the **Copy To** button. Windows displays the **Copy To** dialog box.
6. Click **Browse** and browse to the C:\Documents and Settings\Default User folder.
7. Click **OK**.

8. In the **Permitted to Use and Change** box, click **Change**. The Windows system displays the **Select User or Group** dialog box. In the **Enter the object name to select** box, type *Everyone* and click **OK**.

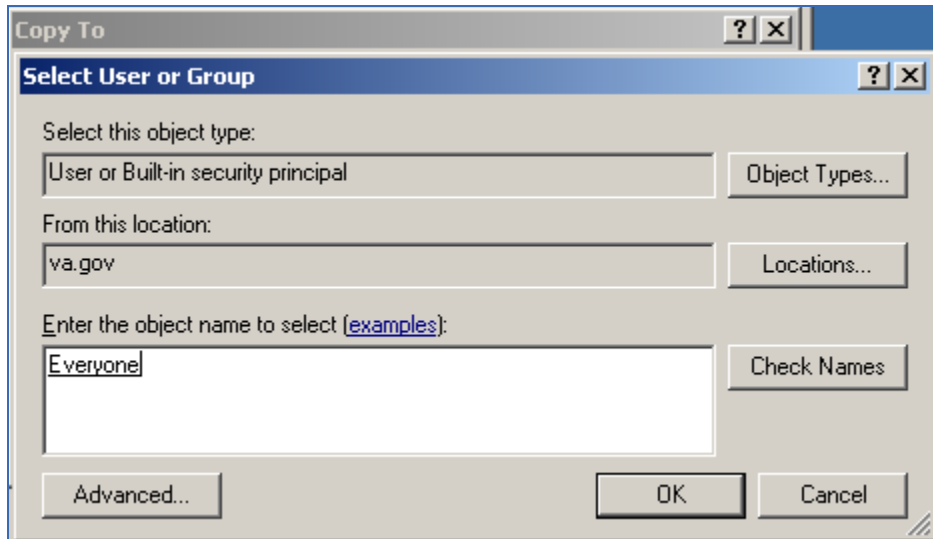


Figure 9: The Select User or Group dialog box.

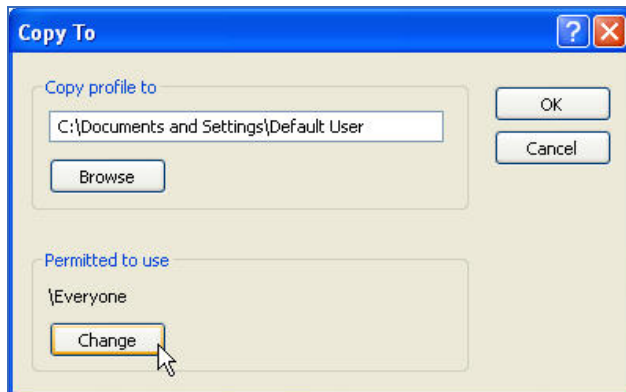


Figure 10: The Copy To dialog box.

9. In the **Copy To** dialog box, click **OK**. Windows displays the **Confirm Copy** dialog box.
10. Click **Yes**.
11. Click **OK**.

#### 11.4. Add Your Local IRM Security Group to the Machine's Local Administrator Group.

You must add your local IRM security group to your computer's Administrator group so that your local IRM staff can support the machine should something—a video card, for example—go awry.



1. Right-click on the **My Computer** icon and select **Manage**. Windows displays the **Computer Management** dialog box.
2. In the left-hand pane, expand **Local Users and Groups**.
3. Select the **Groups** folder. Windows displays a list of the local machine's groups in the right-hand pane.
4. Double-click the Administrators group. Windows displays the **Administrators Properties** dialog box.
5. Click the **Add** button.
6. In the **Enter the object names to select** box, type  
VHAMASTER\[YOURIRMSECURITYGROUPNAME].
7. Click **OK**.

## 11.5. Add the Machine to Its Own Local Administrator Group

You must add the display board to your computer's Administrator group so that it will have access to the private keystores that EDIS uses for two-way Secure Sockets Layer (SSL) encryption. A group policy will ensure that the display board remains locked down.

1. Right-click on the **My Computer** icon and select **Manage**. Windows displays the **Computer Management** dialog box.
2. In the left-hand pane, expand **Local Users and Groups**.
3. Select the **Groups** folder. Windows displays a list of the local machine's groups in the right-hand pane.
4. Double-click the Administrators group. Windows displays the **Administrators Properties** dialog box.
5. Click the **Add** button.
6. In the **Enter the object names to select** box, type  
VHAMASTER\VHAISLEDISBIGBOARD.
7. Click **OK**.

## 11.6. Configure Auto Login and Auto Login Lockdown

On the computer that will power your big-board display:

1. Create a folder named *Vista* under the Program Files directory.
2. Create another folder (within the Vista folder) named *EDP*. The resulting directory path should look *exactly* like this: C:\Program Files\Vista\EDP.
3. Retrieve the EDP\_1\_0.zip file from one of the following Office of Information Field Office (OIFO) ANONYMOUS SOFTWARE directories:

OIFO	FTP Address	Directory
Albany	ftp.fo-albany.med.va.gov	anonymous.software
Hines	ftp.fo-hines.med.va.gov	anonymous.software
Salt Lake City	ftp.fo-slc.med.va.gov	anonymous.software
VistA Download Site	download.vista.med.va.gov	anonymous.software
4. Extract the contents of EDP\_1\_0.zip to a folder on your machine's desktop. This folder will contain the following two files: Launch\_EDIS.exe and edisautologon.reg.
5. Copy Launch\_EDIS.exe to the EDP folder you created (C:\Program Files\Vista\EDP). The resulting directory path should look *exactly* like this: C:\Program Files\Vista\EDP\Launch\_EDIS.exe.
6. Double-click the edisautologon.reg file; this saves the registry settings that provide credentials for the EDIS auto-login process to the machine's registry files.
7. Reboot the computer.

8. Confirm that auto logon is working properly (the computer should automatically log in at this point).

## 11.7. Contact the VA National Helpdesk at 888.596.4357 or Create a Remedy Ticket

If you call the helpdesk, please tell the person who answers your call that you are making a display-board setup request. If you create a Remedy ticket, select the *Display Board Setup Request* option.

You will need to provide the fully qualified domain name of the workstation that will power the EDIS display (isl-testedis.vha.med.va.gov, for example). You must also provide the machine's administrator account name—this is the name under which you intend to join the machine to EDIS lockdown security and EDIS auto-start groups. The helpdesk will add your machine's name to the EDIS LockdownSecurity Group and will add your machine's administrator account to the EDIS auto-start group.

*Note:* Please wait to receive notification from EDIS helpdesk support that it has added your machine to the VHAMASTER domain.

## 11.8. Wait until the VA National Helpdesk Calls or Sends an Email Message to Notify You that It has Completed Your Requests.

After you receive notification that the helpdesk has completed your requests, open a new Remedy ticket asking your local IRM to add the machine to the VHAMASTER domain (vha.med.va.gov). The machine will automatically join the computer account that the helpdesk created in the proper OU.

The directory service will automatically push the EDIS Group Policy Objects (GPOs) and a SSL certificate to your machine. Please follow the instructions in section 11.9 while this push is occurring. After you complete the steps in section 11.9, you will need to log out and then immediately log back in to confirm that kiosk mode is working properly. If your machine has received the GPOs and the SSL certificate, it will automatically launch the big board. Otherwise, it will provide a relevant error message.

If kiosk mode is working properly, you may now delete the testuser account you created earlier in the process.

## 11.9. Configure Kiosk Mode in Vista

You must complete the following task in your Vista system before the EDIS display board can run in kiosk mode. You can perform this task while you are waiting for your machine to receive the GPOs that will run your big-board display.

### **Background**

When the EDIS Web server receives a service request from a computer that claims to be a kiosk, the Web server requests a certificate from the requesting computer. The server uses this certificate to get the name of the computer and then does an additional check with the local Vista system to make sure the computer name is in the list of computer names that are authorized to run the kiosk.

To set up the list of authorized kiosk computer names on the Vista system:

- You must possess the EDPF KIOSKS security key; this key allows you to set up kiosks on the Vista system
- You must know the *fully qualified name* of the computer that will be running the kiosk; this name will look something like this: isl-testedis.vha.med.va.gov (please note that machine names now use the .vha.med.va.gov extension)

To add computer names to the list:

1. Use the EDPF BIGBOARD KIOSKS option to set up the kiosk. At the **Select OPTION NAME** prompt, type *EDPF BIGBOARD KIOSKS*.
2. At the **Select INSTITUTION NAME** prompt, type your institution's number.
3. At the **Select action** prompt, type *Add*.
4. At the **Computer Name** prompt, type the fully qualified name of the computer.
5. At the **Display Board** prompt, type the display board's name.

An example:

```
Select OPTION NAME: EDPF BIGBOARD KIOSKS          Display Board Kiosks
Select INSTITUTION NAME: SLC-DEV
```

EDPF BIGBOARD KIOSKS	Jun 13, 2009@01:04:29	Page: 0 of 0
Division: SLC-F0 EDIS DEV (960)		
Computer Name	Display Board	
Enter ?? for more actions		
Add	Change	Select Division
Remove		Quit
Select action: █		

Figure 11: The Select action prompt.

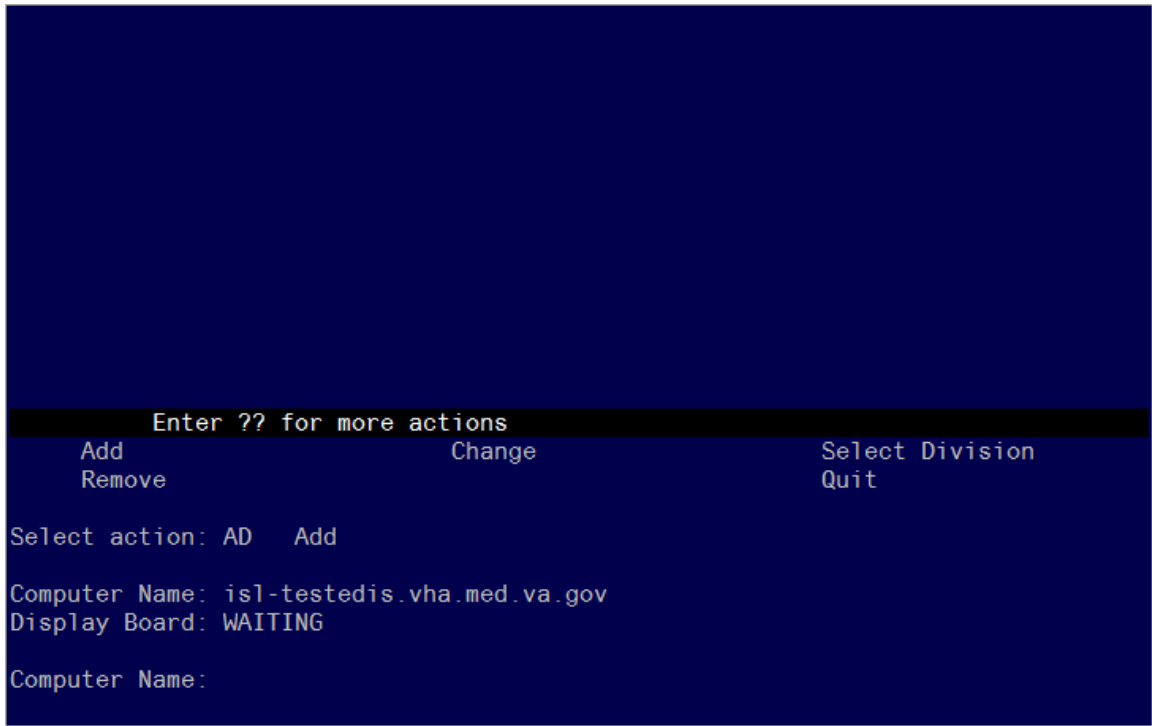


Figure 12: The Computer Name prompt.

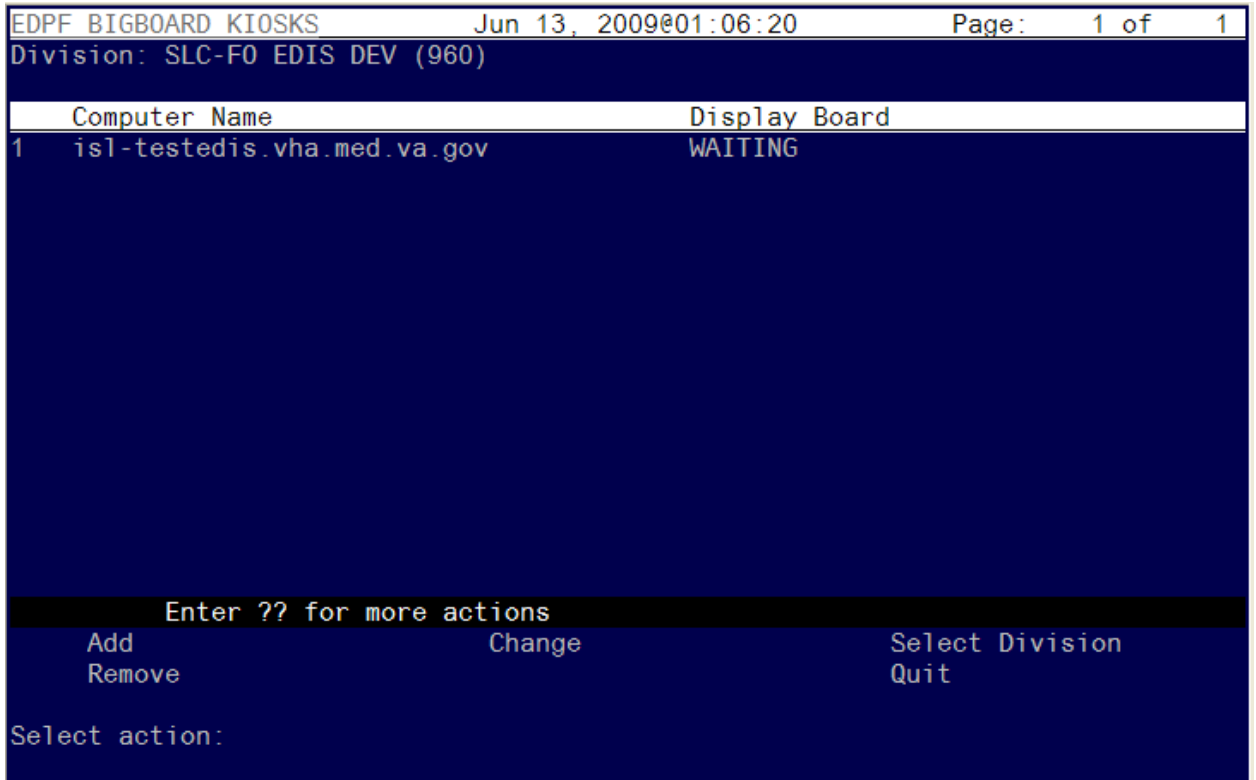


Figure 13: The Select action prompt.

You may use the other options to change and remove kiosks. It is important that the display board name match exactly the display board name that is configured in EDIS. Display-board names are case sensitive.

## 11.10. Configure a Display Board Size

The EDIS **Configure** view allows users to select the optimal screen size for your site's electronic whiteboard (or big-board) display. The application ships with the following display sizes:

- 640 x 480
- 800 x 600
- 1024 x 768
- 1280 x 800
- 1280 x 1024

If your site's optimal display size isn't on this list, you can add it by taking the following steps.

1. Log in to Vista.
2. At the **Select OPTION NAME** prompt, type *xpar menu* (for **XPAR MENU TOOLS**) and then press the <Enter> key.
3. At the **Select General Parameter Tools Option** prompt, type *ep* (for **Edit Parameter Values**) and then press the <Enter> key.
4. At the **Select PARAMETER DEFINITION NAME** prompt, type *edpf screen* (for **EDPF SCREEN SIZES**) and then press the <Enter> key.
5. At the **Enter selection** prompt, type *5* (for **Division**) and then press the <Enter> key.
6. At the **Select INSTITUTION NAME** prompt, type the name of your institution or its station number and then press the <Enter> key.
7. At the **Select Sequence** prompt, type a number that represents the selection-list sequence in which you want the display size to appear and press the <Enter> key.
8. If you are adding this sequence as a new sequence, respond to the **Are you adding...as a new Sequence? Yes//** prompt by pressing the <Enter> key to accept the default.
9. At the **Screen Size (WIDTHxHEIGHT)** prompt, type the screen size you want EDIS to list and press the <Enter> key.
10. Repeat steps 7 through 9 to add additional selections to the screen-size list (as needed).

For instructions on how to configure a display board's screen size via the application's **Configure** view, see the EDIS user guide's "Add a New Display Board" section.

## 11.11. Confirm your settings

Reboot the computer and check to make sure:

- The EDIS big-board user auto logon is successful
- The certificate script runs successfully
- The big-board screen kiosk mode executes properly

### 11.11.1. If Necessary: Log in to the Kiosk as an Administrator

If you find it necessary to stop the auto logon process and log in to the machine as an administrator:

1. Simultaneously press the <Ctrl>, <Alt>, and <Delete> keys while the big board kiosk screen is running.
2. Click the Logoff button to log off the EDIS big-board user.
3. When you see the VA security banner, do not click on the OK button. Instead, hold down the <Shift> key and press the <Enter> key. This will bring up the Windows login dialog box.
4. Use this dialog box to log in to the machine as an administrator

You can also stop the auto logon process when the VA Security banner screen appears. Instead of clicking OK, simultaneously press the <Shift> and <Enter> keys. This will stop the auto logon process and allow you to log in as an administrator.

## 12. Troubleshooting

### 12.1. Check-in via Scheduling

If EDIS does not automatically add patients when users create an appointment for them or check them in via the Scheduling package, make sure your site's emergency-department location is set in the EDPF LOCATION parameter. Check this parameter to ensure that its value coincides with the value of your emergency department location in file #44 (Hospital Location). EDIS uses values in the EDPF LOCATION parameter to add patients to its log when you create appointments for, or check in, emergency-department visits.

### 12.2. Blank View

If users don't see view selections when they log in to EDIS, you may not have assigned EDIS options for them. Users need at least one assigned option to access EDIS views. If users already have one or more assigned options, you may need to rebuild your site's menu trees in Vista. Rebuilding menus is necessary only after you assign new menu options for the first time.

### 12.3. PCE Visits

EDIS creates a Patient Care Encounter (PCE) visit in CPRS when users select a provider or diagnosis in EDIS. If this functionality isn't working at your site, check:

- The location entry in the EDPF LOCATION parameter
- Physicians' and nurses' person-class status

#### 12.3.1. Check the EDPF LOCATION Parameter

EDIS uses the entry in this parameter to create PCE visits in CPRS.

#### 12.3.2. Check for Active Person Class

Before EDIS creates PCE visits based on physician, nurse, or resident assignments, it checks to make sure the physician, nurse, or resident has an active person class. If a user selects a provider whose person class is expired, EDIS does not create a visit based on the user's selection. To remedy this problem, check the person class of each provider on your site's staff pick lists.

### 12.4. Nurse Assignments

By default, EDIS bases its nursing-staff list on all entries in the New Person file (#200). Sites can elect to have EDIS filter its nurse-selection list to allow only people who hold the ORELSE security key, only people who hold the PSJ RNURSE security key, or only people who are present and active in the Nurs Staff file (#210).

If you do not see emergency-department nurses when you are using the **Assign Staff** view to create the EDIS **Nurse** pick list, check the status of your site's emergency-department nursing staff in the Nurs Staff file. Or, if your site has configured EDIS to base its selection list on the ORELSE or PSJ RNURSE security key, check to make sure your site's emergency-department nurses hold the appropriate keys.

## 12.5. Intermittent Login Difficulties

If your site is experiencing intermittent login difficulties and it uses a load balancer that passes control to different instances of VistA, be sure that each VistA instance is running a VistALink listener. Every system that handles VistALink connections must be running a VistALink listener.



# Index

230		EDP CONVERSION	
Files .....	15	Exported Options.....	45
230.04		EDPDB	
Files .....	24	Globals .....	15
Adobe Flash Player.....	2	EDPBDL	
Requirements for Mac OS .....	3	Routines.....	10
Requirements for Windows .....	2	EDPBLK	
Architecture.....	4	Routines.....	10
Blank View		EDPBPM	
Troubleshooting.....	67	Routines.....	10
Check-in via Scheduling		EDPBRM	
Troubleshooting.....	67	Routines.....	10
Codes		EDPBRS	
233.21 .....	42	Routines.....	10
CPRS Synchronization.....	8	EDPBSL	
Discharge Diagnosis		Routines.....	10
Files .....	24	EDPBST	
Disk Space		Routines.....	10
Requirements .....	6	EDPCBRD	
Display Board .....	4	Remote Procedure Calls .....	44
URLs.....	4	Routines.....	10
Display Board Configuration Subfile		EDPCDBG	
231.94 .....	40	Routines.....	10
ED Log		EDPCONV	
Files .....	15	Routines.....	10
ED Log History		EDPCONV1	
230.1 .....	29	Routines.....	11
Files .....	29	EDPCSV	
EDIS Protocols		Routines.....	11
APPOINTMENT EVENTS.....	51	EDPCTRL	
EDP CHECK-IN.....	51	Remote Procedure Calls .....	44
EDP MONITOR.....	51	Routines.....	11
EDP NEW PATIENT .....	51	EDPDD	
EDP OR MONITOR .....	51	Routines.....	11
EDPAF ADD BOARD .....	51	EDPF	
EDPF BIG BOARD MENU.....	51	Parameters .....	7
EDPF BLANK 1.....	51	EDPF BIGBOARD KIOSKS	
EDPF BLANK 2.....	51	Exported Options.....	45
EDPF BLANK 3.....	52	Parameters .....	7
EDPF CHANGE BOARD.....	52	EDPF DEBUG START TIME	
EDPF QUIT .....	52	Parameters .....	7
EDPF REMOVE BOARD.....	52	EDPF LOCATION	
EDPF SELECT DIVISION .....	52	Parameters .....	7
Protocols .....	51	EDPF NURSE STAFF SCREEN	
EDIS Templates		Parameters .....	7
Templates .....	53	EDPF SCHEDULING TRIGGER	
EDP		Parameters .....	7
Globals.....	15	EDPF SCREEN SIZES	

Parameters .....	8
EDPF TRACKING MENU ALL	
Exported Options .....	45
EDPF TRACKING MENU CLINICIAN	
Exported Options .....	45
EDPF TRACKING MENU SIGNIN	
Exported Options .....	45
EDPF TRACKING MENU TRIAGE	
Exported Options .....	45
EDPF TRACKING SYSTEM	
Exported Options .....	45
EDPF TRACKING VIEW BOARD	
Exported Options .....	46
EDPF TRACKING VIEW CONFIGURE	
Exported Options .....	46
EDPF TRACKING VIEW DISPOSITION	
Exported Options .....	46
EDPF TRACKING VIEW EDIT CLOSED	
Exported Options .....	46
EDPF TRACKING VIEW REPORTS	
Exported Options .....	46
EDPF TRACKING VIEW SIGNIN	
Exported Options .....	46
EDPF TRACKING VIEW STAFF	
Exported Options .....	46
EDPF TRACKING VIEW TRIAGE	
Exported Options .....	46
EDPF TRACKING VIEW UPDATE	
Exported Options .....	46
EDPFAA	
Routines .....	11
EDPFLEX	
Routines .....	11
EDPFMON	
Routines .....	11
EDPFMOVE	
Routines .....	11
EDPFPER	
Routines .....	11
EDPFPTC	
Routines .....	11
EDPFPTL	
Routines .....	11
EDPLOG	
Routines .....	11
EDPLOG1	
Routines .....	11
EDPLOGA	
Routines .....	11
EDPLOGH	
Routines .....	11

EDPLPCE	
Routines .....	12
EDPMAIL	
Routine .....	12
EDPQAR	
Routines .....	12
EDPQDB	
Routines .....	12
EDPQDBS	
Routines .....	12
EDPQLE	
Routines .....	12
EDPQLE1	
Routines .....	12
EDPQLP	
Routines .....	12
EDPQPCE	
Routines .....	12
EDPR EXPORT	
Security Keys .....	49
EDPR PROVIDER	
Security Keys .....	50
EDPR XREF	
Security Keys .....	50
EDPRPT	
Routines .....	12
EDPRPT1	
Routines .....	12
EDPRPT10	
Routines .....	12
EDPRPT11	
Routines .....	12
EDPRPT12	
Routines .....	12
EDPRPT2	
Routines .....	12
EDPRPT3	
Routines .....	12
EDPRPT4	
Routines .....	13
EDPRPT5	
Routines .....	13
EDPRPT6	
Routines .....	13
EDPRPT7	
Routines .....	13
EDPRPT7C	
Routines .....	13
EDPRPT8	
Routines .....	13
EDPRPT9	
Routines .....	13

EDPRPTBV		EDPF .....	7
Routines .....	13	EDPF BIGBOARD KIOSKS .....	7
EDPS BOARD CONTEXT		EDPF DEBUG START TIME .....	7
Exported Options .....	46	EDPF LOCATION .....	7
EDPSERVER		EDPF NURSE STAFF SCREEN .....	7
Exported Options .....	47	EDPF SCHEDULING TRIGGER .....	7
EDPX		EDPF SCREEN SIZES .....	8
Routines .....	13	PCE Visits	
EDPYCHK		Troubleshooting .....	67
Routines .....	13	presentation tier .....	4
EDPYPRE		Protocols .....	51
Routines .....	13	FH EVSEND OR .....	52
EDPYPST		GMRC EVSEND OR .....	52
Routines .....	13	LR70 CH EVSEND OR .....	52
Electronic whiteboard		OR EVSEND FH .....	52
Set up display .....	54	OR EVSEND GMRC .....	52
Exported Options .....	45	OR EVSEND LRCH .....	52
Assign Views .....	47	OR EVSEND ORG .....	52
Files .....	15	OR EVSEND PS .....	52
Codes .....	42	OR EVSEND RA .....	52
Display Board Configuration Subfile .....	40	PS EVSEND OR .....	52
Record Indices		RA EVSEND OR .....	52
#230 .....	27	SDAM APPOINTMENT EVENTS .....	52
230.1 .....	32	Rehabilitation Act of 1973 (Section 508) .....	1
231.7 .....	33	Remote Procedure Calls .....	44
231.8 .....	37	Requirements	
Tracking Area .....	37	Disk Space .....	6
Tracking Code File .....	40	Job Access with Speech .....	3
Tracking Code Set .....	42	Minimum Hardware .....	5
Tracking Room-Bed .....	33	Optimal Viewing .....	6
Tracking Staff (#231.7) .....	32	Workstation .....	2
Globals .....	15	Response Times	
Installation .....	4	System .....	6
Job Access with Speech .....	3	Routines .....	10
Job Access with Speech (JAWS)		EDPBCF .....	10
Rehabilitation Act of 1973 (Section 508) .....	1	EDPBCM .....	10
KAAJEE		EDPBDL .....	10
Security .....	49	EDPBLK .....	10
Kernel Authentication and Authorization for		EDPBPM .....	10
Java 2 Enterprise Edition (KAAJEE) .....	4	EDPBRM .....	10
Minimum Hardware Requirements		EDPBRS .....	10
System Performance .....	5	EDPBSL .....	10
Namespace and Number Space .....	6	EDPBST .....	10
Nurse Assignments		EDPCBRD .....	10
Troubleshooting .....	67	EDPCDBG .....	10
Optimal Viewing Requirements		EDPCONV .....	10
System Performance .....	6	EDPCONV1 .....	11
Orders		EDPCSV .....	11
230.08 .....	26	EDPCTRL .....	11
Files .....	26	EDPDD .....	11
Parameters .....	7	EDPFAA .....	11

EDPFLEX.....	11	Memory and CPU	
EDPFMON.....	11	System Performance .....	5
EDPFMOVE.....	11	Security.....	49
EDPFPER.....	11	KAAJEE.....	49
EDPFPTC.....	11	PKI Encryption.....	49
EDPFPTL.....	11	Secure Sockets Layer (SSL).....	49
EDPLOG .....	11	Security keys .....	49
EDPLOG1 .....	11	Security Keys	
EDPLOGA .....	11	Assign Keys.....	50
EDPLOGH.....	11	Security .....	49
EDPLPCE.....	12	System	
EDPMAIL .....	12	Response Times.....	6
EDPQAR .....	12	Timeouts.....	6
EDPQDB .....	12	System Performance .....	5
EDPQDBS .....	12	Templates.....	53
EDPQLE.....	12	EDPF BIGBOARD KISOKS.....	53
EDPQLE1.....	12	Timeouts	
EDPQLP.....	12	System .....	6
EDPQPCE .....	12	Tracking Code File	
EDPRPT .....	12	233.1.....	40
EDPRPT1 .....	12	Record Indices	
EDPRPT10.....	12	233.1 .....	42
EDPRPT11.....	12	Tracking Code Set	
EDPRPT12.....	12	233.2.....	42
EDPRPT2 .....	12	Tracking Room-Bed	
EDPRPT3 .....	12	231.8.....	33
EDPRPT5 .....	13	Tracking Staff File	
EDPRPT6 .....	13	231.7.....	32
EDPRPT7 .....	13	Troubleshooting.....	67
EDPRPT7C.....	13	Blank View.....	67
EDPRPT8 .....	13	Check-in via Scheduling .....	67
EDPRPT9 .....	13	Nurse Assignments.....	67
EDPRPTBV.....	13	PCE Visits .....	67
EDPX.....	13	URLs	
EDPYCHK .....	13	Production Account.....	4
EDPYPRE .....	13	Test Account .....	5
EDPYPST.....	13	Web Application.....	4
EPTRPT4.....	13	Workstation	
Scaling Guide		Requirements.....	2