

TRAINEE REGISTRATION CORE DATASET (FORMERLY CLINICAL TRAINEE CORE DATASET)

Supplement to Patch Description Kernel Patch XU*8.0*251 June 2003

Revised: Kernel Patch XU*8.0*512 & 540

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Department of Veterans Affairs (VA)
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Common Services (CS)

Revision History

Documentation History

The following table displays the revision history for this document. Revisions to the documentation are based on continuous dialog with Infrastructure and Security Services (ISS) Technical Writers and evolving industry standards and styles.

Table i. Documentation History

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Date	Description	Authors
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		 Developer—Skip Ormsby
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	of VHA Directive 2003-032, Clinical Trainee Registration.	 Development Manager—Dan Soraoka
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		Tech Writer—Susan Strack

Patch History

For the current patch history related to this software, please refer to the Patch Module on FORUM.

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Orientation

How to Use this Manual

This is the supplemental documentation for the VistA Trainee Registration Core Dataset (formerly known as Clinical Trainee Core Dataset) software. It is organized into the following major parts:

- 1. Introduction
- 2. VistA New Person File—Academic Affiliations Needs
- 3. Editing and Displaying VHA Registered Trainee Data
- 4. HL7 Interface Specifications
- 5. Implementation and Maintenance)

Legal Requirements

There are no special legal requirements involved in the use of Deployment Toolkit (DTK).

Disclaimers

This manual provides an overall explanation of how the Trainee Registration Core Dataset; however, no attempt is made to explain how the overall VistA programming system is integrated and maintained. Such methods and procedures are documented elsewhere. We suggest you look at the various VA Websites on the Internet and VA Intranet for a general orientation to Health<u>e</u>Vet. For example, go to the Office of Information & Technology (OI&T) VistA Development VA Intranet Website:

http://vista.med.va.gov



DISCLAIMER: The appearance of any external hyperlink references in this manual does not constitute endorsement by the Department of Veterans Affairs (VA) of this Website or the information, products, or services contained therein. The VA does not exercise any editorial control over the information you may find at these locations. Such links are provided and are consistent with the stated purpose of the VA.

Documentation Conventions

This manual uses several methods to highlight different aspects of the material:

• Various symbols are used throughout this documentation to alert readers to special information. The following table gives a description of each of these symbols:

Table ii. Documentation symbol description

Symbol	Description
1	NOTE/REF: Used to inform the reader of general information including references to additional reading material
Λ	CAUTION or DISCLAIMER: Used to caution the reader to take special notice of critical information

- Descriptive text is presented in a proportional font (as represented by this font).
- "Snapshots" of computer online displays (i.e., character-based screen captures/dialogs) and computer source code are shown in a *non*-proportional font and enclosed within a box. Also included are Graphical User Interface (GUI) Microsoft Windows images (i.e., dialogs or forms).
 - User's responses to online prompts will be boldface type.
 - The "**Enter**>" found within these snapshots indicate that the user should press the Enter or Return key on their keyboard.
 - Author's comments are displayed in italics or as "callout" boxes.
 - 1

NOTE: Callout boxes refer to labels or descriptions usually enclosed within a box, which point to specific areas of a displayed image.

- All uppercase is reserved for the representation of M code, variable names, or the formal name of options, field and file names, and security keys (e.g., the XUPROGMODE key).
- Conventions for displaying TEST data in this document are as follows:
 - The first three digits (prefix) of any Social Security Numbers (SSN) will begin with either "000" or "666".
 - Patient and user names will be formatted as follows: [Application Name]PATIENT,[N] and [Application Name]USER,[N] respectively, where "Application Name" is defined in the Approved Application Abbreviations document, located on the Web site listed below, and where "N" represents the first name as a number spelled out and incremented with each new entry.

How to Obtain Technical Information Online

Exported file, routine, and global documentation can be generated using Kernel, MailMan, and VA FileMan utilities.



NOTE: Methods of obtaining specific technical information online will be indicated where applicable under the appropriate topic.

Help at Prompts

VistA M-based software provides online help and commonly used system default prompts. Users are encouraged to enter question marks at any response prompt. At the end of the help display, you are immediately returned to the point from which you started. This is an easy way to learn about any aspect of VistA M-based software.

Obtaining Data Dictionary Listings

Technical information about VistA M-based files and the fields in files is stored in data dictionaries (DD). You can use the List File Attributes option on the Data Dictionary Utilities submenu in VA FileMan to print formatted data dictionaries.



REF: For details about obtaining data dictionaries and about the formats available, see the "List File Attributes" chapter in the "File Management" section of the *VA FileMan Advanced User Manual*.

Assumptions about the Reader

This manual is written with the assumption that the reader is familiar with the following:

- VistA computing environment
 - Kernel—VistA M Server software (e.g., Kernel Installation and Distribution System [KIDS])
 - VA FileMan data structures and terminology—VistA M Server software
- Microsoft® Windows
- M programming language

Reference Material

Readers who wish to learn more about the Trainee Registration Core Dataset software should consult the following:

- Trainee Registration Core Dataset, Supplement to Patch Description
- Installation instructions for this software can be found in the patch description for Kernel Patch XU*8.0*512, located in the National Patch Module (i.e., Patch User Menu [A1AE USER]) on FORUM.

VistA documentation is made available online in Microsoft Word format and Adobe® Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe® Acrobat Reader (i.e., ACROREAD.EXE), which is freely distributed by Adobe® Systems Incorporated at the following Website:

http://www.adobe.com/

VistA documentation can be downloaded from the VHA Software Document Library (VDL) Website:

http://www.va.gov/vdl/

VistA documentation and software can also be downloaded from the Product Support (PS) anonymous directories:

• Preferred Method download.vista.med.va.gov



NOTE: This method transmits the files from the first available FTP server.

Albany OIFO ftp.fo-albany.med.va.gov
 Hines OIFO ftp.fo-hines.med.va.gov
 Salt Lake City OIFO ftp.fo-slc.med.va.gov

1 Introduction

This supplemental documentation is intended for use in conjunction with the Veterans Health Information System and Technology Architecture (VistA) Trainee Registration Core Dataset (formerly known as Clinical Trainee Core Dataset) software. It outlines the details of the work involved in this patch for VA facilities.

The original version of this software was developed as Clinical Trainee Core Dataset and was released in Kernel Patch XU*8.0*251 in support of VHA Directive 2003-032, Clinical Trainee Registration, to assist the VHA Office of Academic Affiliations (OAA) in capturing core data for VHA clinical trainees that use the VistA system. To achieve this:

- A new PROGRAM OF STUDY file (#8932.2) was created.
- New fields and a cross-reference have been added to the NEW PERSON file (#200).
- Existing ScreenMan forms and input and print templates that are used to edit the data in the NEW PERSON file (#200) were modified to include the new fields.
- A new menu, edit option and form, and inquiry option were provided for entering and viewing clinical trainee data.
- NOTE: The VistA NEW PERSON file (#200) is exported with Kernel. It resides at each VA facility. Each person/user who has access to the local VistA computer system is entered into this file. It contains specific data on all employees, users, practitioners, and providers who access the local VistA system, and in relation to registered trainees, the "core trainee dataset." The data elements within this file describe the users' characteristics and attributes. Many of them are specifically oriented to the health care field.

The Trainee Registration Core Dataset entails the following changes:

- The following menu and associated options has been modified, both menu text and ScreenMan form:
 - OAA Trainee Registration Menu ... [XU-CLINICAL TRAINEE MENU] (menu text formerly named OAA Clinical Trainee)
 - Trainee Registration Inquiry [XU-CLINICAL TRAINEE INQUIRY] (menu text formerly named Inquiry Clinical Trainee)
- The following new menu and associated options, including new print and sort templates have been added:
 - Trainee Reports Menu ... [XU-CLINICAL TRAINEE REPORTS]
 - o Local Trainee Registration Reports ... [XU-CLINICAL LOCAL REPORTS]
 - List of Active Registered Trainees [XU-CLINICAL ACTIVE TRAINEE]
 - List of All Registered Trainees [XU-CLINICAL TRAINEE LIST]
 - List of Inactive Registered Trainees [XU-CLINICAL INACTIVE TRAINEE]
 - Total Count of Registered Trainees [XU-CLINICAL TRAINEE DB COUNT]

- o Trainee Transmission Reports to OAA ... [XU-CLINICAL TRANS REPORTS]
 - Trainee Transmission Report by Date [XU-CLINICAL TRAINEE TRANSA]
 - Trainee Transmission Report by Range [XU-CLINICAL TRAINEE TRANSC]
 - Trainee Transmission Report Selectable Items [XU-CLINICAL TRAINEE TRANSB]

This supplement provides instructions on how to use this software to populate the NEW PERSON file (#200) with information across all Veterans Health Administration (VHA) facilities. Information such as:

- name
- address
- social security number (SSN)
- discipline of study
- current degree level
- · program of study
- VHA training facility
- date HL7 trainee record was built and sent to OAA
- registered trainee verification
- date when registered trainee is no longer designated as such
- start of training
- last year a trainee anticipates being in a training program at the associated VA facility

This supplement also provides documentation on the updates to the HL7 interface, originally implemented with Kernel Patch XU*8.0*251 to identify the VistA information that will be shared with the National Trainee Registration Database as part of the Trainee Registration Core Dataset software.

The intended audience for this documentation is Information Resource Management (IRM) and Veterans Affairs Medical Center (VAMC) personnel responsible for the implementation and maintenance of the VistA NEW PERSON file (#200).

1.1 Background

Access to standardized core data on VHA trainees using VistA is not collected in any systematic way that is electronically retrievable across the VHA's health care system. Basic information on VA trainees, being residents and other health professions students, is needed for the purposes of security, liability and public health issues, recruitment, and various national reports on VHAs academic mission. For clinical trainees who will need access to the patient record as part of their clinical experience, collecting trainee information via VistA is necessary.

1.2 Purpose

VistA needs to be modified to capture basic information on all Health Professions Trainees who receive some or all of their training at a VA facility so that data may be extracted and rolled up at the national level.

1.3 System Requirements

This software is a Kernel Installation and Distribution System (KIDS) release. Installation Instructions can be found in the description for Kernel Patch XU*8.0*512, located on the Patch Module (i.e., Patch User Menu [A1AE USER]) on FORUM.

This software requires that both Test and Production accounts exist in a standard VistA operating environment in order to function correctly.

In addition to a standard VistA operating environment, the following patches must be installed before running this patch:

Table 1-1. Patches required prior to installation of Trainee Registration Core Dataset

VistA Software and Version	Associated Patch Designation(s)	Brief Patch Description
Kernel 8.0	XU*8.0*398	Clinical Core Registration Screen

Introduction

2 VistA New Person File—Academic Affiliations Needs

This is the User Manual section of this supplemental documentation for the Trainee Registration Core Dataset (formerly known as Clinical Trainee Core Dataset) software. This section provides instructions on how to use this software to populate the VistA NEW PERSON file (#200) with resident and trainee information for the purposes of security, liability and public health issues, recruitment, and various national reports on VHAs academic mission.

The VistA NEW PERSON file (#200) is exported with Kernel, and resides at each local VA medical facility. Each person/user who has access to the local VistA computer system is entered into this file. It contains specific data on all employees, users, practitioners, and providers who access the local VistA system. The data elements within this file describe the users' characteristics and attributes. Many of them are specifically oriented to the health care field.

The NEW PERSON file (#200) is being adapted to meet the needs of the Office of Academic Affiliations (OAA) for reporting information on individuals from affiliated institutions who are receiving training at a VA Medical Facility (VHA registered trainees) such as medical residents, nursing students, and other trainees who directly or indirectly may provide care to patients. The Trainee Registration Core Dataset software has added the following new fields to the NEW PERSON file (#200):

- CURRENT DEGREE LEVEL (#12.1), added with Kernel Patch XU*8.0*251
- PROGRAM OF STUDY (#12.2) added with Kernel Patch XU*8.0*251
- LAST TRAINING MONTH & YEAR (#12.3) updated with Kernel Patch XU*8.0*344
- VHA TRAINING FACILITY (#12.4) added with Kernel Patch XU*8.0*344
- DATE HL7 TRAINEE RECORD BUILT (#12.5) added with Kernel Patch XU*8.0*344
- CLINICAL CORE TRAINEE (#12.6) added with Kernel Patch XU*8.0*344
- DATE NO LONGER TRAINEE (#12.7) added with Kernel Patch XU*8.0*344
- START OF TRAINING (#12.8) added with Kernel Patch XU*8.0*344

In addition, the "ATR" cross-reference monitors the following fields in the NEW PERSON file (#200):

- NAME (#.01)
- STREET ADDRESS 1 (#.111)
- STREET ADDRESS 2 (#.112)
- STREET ADDRESS 3 (#.113)
- CITY (#.114)
- STATE (#.115)
- ZIP CODE (#.116)
- SSN (#9)
- EMAIL ADDRESS (#.151)
- CURRENT DEGREE LEVEL (#12.1)

- PROGRAM OF STUDY (#12.2)
- LAST TRAINING MONTH & YEAR (#12.3)
- SERVICE/SECTION (#29)
- TITLE (#8)
- DOB (#5)
- VHA TRAINING FACILITY (#12.4)
- CLINICAL CORE TRAINEE (#12.6)
- DATE NO LONGER TRAINEE (#12.7)
- START OF TRAINING (#12.8)

When data for any of the above fields is modified for a person that is designated a registered trainee, a new cross-reference defined on the NEW PERSON file (#200) sets an index (a global node) that stores the IEN of the record last modified and the date that it was modified. A separate queuable option runs daily, looping through the "ATR" index and via HL7 messages, which sends the registered trainee data to the OAA for each record modified.



REF: For more information on tracking changes to registered trainee records, see the "ATR" New-Style Cross-reference" topic in this manual.

3 Editing and Displaying VHA Registered Trainee Data

This section provides information about the Kernel options both affected by and created to support the Trainee Registration Core Dataset software. It does not attempt to provide detailed information about how to use these Kernel options. This is documented in detail in the "Sign-On/Security" section of the *Kernel Systems Management Guide* located at the following Website:

http://www.va.gov/vdl/application.asp?appid=10

3.1 Kernel Input Options Affected

The Kernel options and the associated ScreenMan forms and input templates affected by the Trainee Registration Core Dataset are shown in Table 3-1. The Kernel options themselves, have not been changed; however, the ScreenMan forms and the input templates used by these options have been modified to give users the ability to edit registered trainee data.

Table 3-1. Affected Kernel input options with associated ScreenMan forms and input templates

Option and Menu Text	ScreenMan Form	Input Template
XUSERNEW	XUNEW USER	XUNEW USER
Add a New User to the System		
XUSEREDIT	XUEXISTING USER	XUEXISTING USER
Edit an Existing User		
XUSERREACT	XUREACT USER	XUREACT USER
Reactivate a User		

3.2 How Does an Option's ScreenMan Form Differ from its Corresponding Input Template?

Functionally there is no difference between the ScreenMan forms and input templates invoked by these options. All three options attempt to invoke the associated ScreenMan form first. However, if for some reason the ScreenMan form cannot be invoked (e.g., because the terminal type cannot handle screen-oriented applications), the associated input template for scrolling mode is invoked.

3.3 Trainee Registration Menu Options

Figure 3-1 shows the four existing Kernel options affected by and the new OAA Trainee Registration Kernel options for editing and reporting on registered trainees exported with this software. These options are located on their own menu entitled OAA Trainee Registration Menu located on the Kernel User Management menu.

This software also exports a new menu named Trainee Reports Menu [XU-CLINICAL TRAINEE REPORTS] and associated options for local VA medical facility report generation. This new menu has been added to the OAA Registered Trainee menu, Figure 3-1, which is described in more detail in the section "Assign Registered Trainee Options to User(s)" on the following pages.

Figure 3-1. Kernel options affected, updated, and created to support Trainee Registration Cord Dataset

```
Select Systems Manager Menu Option: User Management
    Add a New User to the System
                                                                 [XUSERNEW]
    Edit an Existing User
                                                                 [XUSEREDIT]
                                                                 [XUSERREACT]
    Reactivate a User
    User Inquiry
                                                                 [XUSERINQ]
OAA OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU]
       E Edit Trainee Registration Data [XU-CLINICAL TRAINEE EDIT]
I Trainee Registration Inquiry [XU-CLINICAL TRAINEE INQUI
                                                                 [XU-CLINICAL TRAINEE INQUIRY]
             rainee Reports Menu ... [XU-CLINICAL TRAINEE REPORTS]
Local Trainee Registration Reports [XU-CLINICAL LOCAL REPORTS]
List of Active Registered Trainees [XU-CLINICAL ACTIVE TRAINEE]
       R Trainee Reports Menu ...
                 List of All Registered Trainees [XU-CLINICAL TRAINEE LIST]
                 List of Inactive Registered Trainees [XU-CLINICAL INACTIVE
                                                                         TRAINEE]
                 Total Count of Registered Trainees
                                                                 [XU-CLINICAL TRAINEE DB COUNT]
             Trainee Transmission Reports to OAA [XU-CLINICAL TRANS REPORTS]
                 Trainee Transmission Report by Date [XU-CLINICAL TRAINEE TRANSA]
Trainee Transmission Report by Range [XU-CLINICAL TRAINEE TRANSC]
                 Trainee Transmission Report Selectable Items [XU-CLINICAL TRAINEE
                                                                          TRANSB 1
```

3.4 Editing Registered Trainee Data for New Person File Entries

This next example will use the screen-oriented display (i.e., the ScreenMan form) to illustrate the changes to the Kernel options. Edits are made to a fictitious user named ONE KRNUSER in the NEW PERSON file (#200). The input template functions similarly, but in scrolling mode.



NOTE: You may edit an existing trainee's data via any of the Kernel User Management menu options noted above or by using the OAA Trainee Registration Menu's Edit Trainee Registration Data option. However, you can only create a new trainee record via the Kernel Add a New User to the System menu option.

After you select the option Edit an Existing User, Kernel prompts you to enter the person's name, as shown in Figure 3-2.

Figure 3-2. Selecting a user in the NEW PERSON file (#200)

```
Select User Management Option: Edit an Existing User
Select NEW PERSON NAME: KRNUSER, ONE
```

The option then opens up the first page of the five-page ScreenMan form, as shown in Figure 3-3.

Figure 3-3. Edit an Existing User ScreenMan form, Page 1

Edi	t an Existing User
NAME: KRNUSER, ONE	Page 1 of 5
NAME KRNUSER, ONE	INITIAL: OK
TITLE: DEVELOPER	NICK NAME: PEPI
SSN: 666995556	DOB: MAR 9,1967
DEGREE: MS	MAIL CODE:
DISUSER:	TERMINATION DATE:
Termination Reason:	
PRIMARY MENU OPTION: Select SECONDARY MENU OPTIONS: Want to edit ACCESS CODE (Y/N): Want to edit VERIFY CODE (Y/N):	
Select DIVISION:	CLARKSBURG
<u>SERVICE/SECTION</u> :	IRM
Exit Save Next Page	Refresh
Enter a command or '^' followed	by a caption to jump to a specific field.
COMMAND:	Press <pf1>H for help Insert</pf1>

The data needed on this page of the ScreenMan form by the Office of Academic Affiliations for registered trainees are TITLE and SSN. Therefore, for registered trainees make sure this data is entered.

The rest of the data needed by the Office of Academic Affiliations is on page 5 of the ScreenMan form. Press **PageDown** or **PF1**>**DownArrow**> until you reach page 5, or press **PageUp**> or **PF1**>**UpArrow**> to go directly to the page, which is shown in Figure 3-4.

Figure 3-4. Edit an Existing User ScreenMan form, Page 5

```
Edit an Existing User
NAME: KRNUSER, ONE
                                                             Page 5 of 5
PERMANENT ADDRESS:
          Street 1: 250 Main St.
          Street 2:
          Street 3:
             City: Anytown
             State: CALIFORNIA
          Zip Code: 99999
   E-Mail Address: one.krnuser@med.va.gov
Is this person an active Trainee?: YES
VHA Training Fac.: SAN FRANCISCO
Start Date of Training: JAN 7,2004
                                    Last Training Month & Year: OCT 7,2004
                                     Trainee Inactive (Date):
Program of Study: HEALTH INFORMATION
Current Degree Lvl: MASTER'S
Exit
        Save Next Page
                                Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND:
                                         Press <PF1>H for help
                                                                  Insert
```

For registered trainees, all data on this page should be entered, Figure 3-4. A YES response to the prompt "Is this person an active Trainee?:" causes the following two things to happen:

- All fields except "Trainee Inactive (Date):," to become editable, listed as follows:
 - VHA TRAINING FACILITY (#12.4) added with Patch XU*8.0*344
 - START OF TRAINING (#12.8) added with Patch XU*8.0*344
 - LAST TRAINING MONTH & YEAR (#12.3) modified with Patch XU*8.0*344
 - PROGRAM OF STUDY (#12.2) added with Patch XU*8.0*251
 - CURRENT DEGREE LEVEL (#12.1) added with Patch XU*8.0*251
- The VHA TRAINING FACILITY (#12.4) and PROGRAM OF STUDY (#12.2) fields become required. This means that you *must* have data in this field in order to save your edits and exit the Edit an Existing User option.

3.5 Assign Registered Trainee Options to User(s)

For users who need the ability to edit trainee data or run reports on registered trainees, the OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU] (the menu text of which was formerly named *OAA Clinical Trainee*) may be assigned.

The following new report options have been added to the OAA Trainee Registration Menu. The new Trainee Reports Menu [XU-CLINICAL TRAINEE REPORTS] offers VA facilities registered trainee information from local site databases and information on transmission reports to the OAA.



NOTE: The Kernel User Management menu [XUSER], typically used by IRM, is being transported only for purposes of attaching the new Kernel menu option OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU] during installation of this software. No ScreenMan form or input template is associated with this menu option.

Figure 3-5 shows a screen capture of the OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU] and options.

Figure 3-5. The OAA Trainee Registration Menu

```
OAA Trainee Registration Menu
       Edit Trainee Registration Data
   Ε
       Trainee Registration Inquiry
      Trainee Reports Menu ...
Select OAA Trainee Registration Menu Option: r <Enter> Trainee Reports Menu
          Local Trainee Registration Reports ...
          Trainee Transmission Reports to OAA ...
Select Trainee Reports Menu Option: Local Trainee Registration Reports
             List of Active Registered Trainees
            List of All Registered Trainees
             List of Inactive Registered Trainees
             Total Count of Registered Trainees
Select Local Trainee Registration Reports Option:
          Local Trainee Registration Reports ...
          Trainee Transmission Reports to OAA ...
Select Trainee Reports Menu Option: Trainee Transmission Reports to OAA
             Trainee Transmission Report by Date
             Trainee Transmission Report by Range
             Trainee Transmission Report Selectable Items
Select Trainee Transmission Reports to OAA Option:
```



NOTE: The OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU] or any of its individual sub-menus can be given as a Secondary Menu Option to the specific user(s) assigned to enter and maintain the registered trainee data in the NEW PERSON file (#200).

Table 3-2 shows these Kernel options for creating and editing VHA trainee data in the VistA NEW PERSON file (#200).

- The Edit Trainee Registration Data option [XU-CLINICAL TRAINEE EDIT] allows editing of registered trainee data.
- The Trainee Registration Inquiry option [XU-CLINICAL TRAINEE INQUIRY] (the menu text of which was formerly named *Inquiry Clinical Trainee*) allows you to produce output displaying registered trainee data.
- The following two options are located on the Trainee Reports Menu [XU-CLINICAL TRAINEE REPORTS]. They offer VA facilities trainee data from local site databases and information on transmission reports to the OAA:
 - Local Trainee Registration Reports
 - Trainee Transmission Reports to OAA

A ScreenMan Form is associated with the Edit Trainee Registration Data option, only. A print template is associated with the inquiry option. No input templates are associated with the new report options; however, they are exported with multiple print and sort templates.

Table 3-2. Kernel Registered Trainee options and associated ScreenMan form

Option and Menu Text	ScreenMan Form	Print Templates	Sort Templates
XU-CLINICAL TRAINEE EDIT	XU-CLINICAL TRAINEE	None	None
Edit Trainee Registration Data	XU-CLINICAL TRAINEE DATE		
XU-CLINICAL TRAINEE INQUIRY	None	XU-CLINICAL TRAINEE INQUIRY	None
Trainee Registration Inquiry			
[XU-CLINICAL TRAINEE REPORTS]	None	None	None
Trainee Reports Menu			
[XU-CLINICAL LOCAL REPORTS]	None	None	None
Local Trainee Registration Reports			
[XU-CLINICAL ACTIVE TRAINEE]	None	XU-CLINICAL ACTIVE TRAINEE	XU-CLINICAL ACTIVE TRAINEE
List of Active Registered Trainees			
[XU-CLINICAL TRAINEE LIST]	None	XU-CLINICAL TRAINEE LIST	XU-CLINICAL TRAINEE LIST
List of All Registered Trainees			

Option and Menu Text	ScreenMan Form	Print Templates	Sort Templates
[XU-CLINICAL INACTIVE TRAINEE]	None	XU-CLINICAL INACTIVE TRAINEE	XU-CLINICAL INACTIVE TRAINEE
List of Inactive Registered Trainees			
[XU-CLINICAL TRAINEE DB COUNT]	None	XU-CLINICAL TRAINEE DB COUNT	XU-CLINICAL TRAINEE DB
Total Count of Registered Trainees			COUNT
[XU-CLINICAL TRANS REPORTS]	None	None	None
Trainee Transmission Reports to OAA			
[XU-CLINICAL TRAINEE TRANSA]	None	XU-CLINICAL TRAINEE TRANSA	XU-CLINICAL TRAINEE TRANSA
Trainee Transmission Report by Date			
[XU-CLINICAL TRAINEE TRANSC]	None	XU-CLINICAL TRAINEE TRANSC	XU-CLINICAL TRAINEE TRANSC
Trainee Transmission Report by Range			
[XU-CLINICAL TRAINEE TRANSB]	None	XU-CLINICAL TRAINEE TRANSB	XU-CLINICAL TRAINEE TRANSB
Trainee Transmission Report Selectable Items			

3.6 Using the Edit Trainee Registration Data Option

Figure 3-6 illustrates how to access the Edit Trainee Registration Data option from the OAA Trainee Registration Menu:

Figure 3-6. Using the Edit Trainee Registration Data option

```
Select User Management Option: OAA <Enter> OAA Trainee Registration Menu

E Edit Trainee Registration Data [XU-CLINICAL TRAINEE EDIT]
I Trainee Registration Inquiry [XU-CLINICAL TRAINEE INQUIRY]
R Trainee Reports Menu ... [XU-CLINICAL TRAINEE REPORTS]

Select OAA Trainee Registration Menu Option: e <Enter> Edit Trainee Registration Data

Select NEW PERSON NAME: KRNUSER, ONE <Enter>
```

As was previously mentioned, the Edit Trainee Registration Data option is located on the OAA Trainee Registration Menu. After selecting this option, you will want to select an entry in the NEW PERSON file (#200) at the "Select NEW PERSON NAME:" prompt, shown in Figure 3-6. A one-page ScreenMan form is then presented, shown in Figure 3-7:



NOTE: The XUSHOWSSN security key allows users who hold it authority to view Registered Trainee Social Security Numbers (SSNs) in the option Edit Trainee Registration Data (XUCLINICAL TRAINEE EDIT). If the SSN field is defined, users who are not assigned the XUSHOWSSN security key will only see the last four digits of the Social Security Number (SSN) displayed (e.g., SSN: *****1234). If no SSN has been entered, only the following label is displayed: "SSN:".

Figure 3-7. Edit Trainee Registration Data form

```
Edit Trainee Registration Data
NAME: KRNUSER, ONE
                                          SSN: 666995556
                                                                 Page 1 of 1
Is this person an active Trainee?: YES
VHA Training Fac.: SAN FRANCISCO
Start Date of Training: JAN 7,2004 Last Training Month & Year: OCT 2007
                                     Trainee Inactive (Date):
Program of Study: HEALTH INFORMATION
Target Degree Lvl: MASTER'S
Degree: MS
                   Title: DEVELOPER
Service/Section: IRM
                                                 Date of Birth: MAR 9,1967
Permanent Street 1: 250 Main St.
Permanent Street 2:
Permanent Street 3:
City: Anytown
State: CALIFORNIA
                                         Zip Code: 99999
E-Mail Address: one.krnuser@med.va.gov
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND:
                                            Press <PF1>H for help
                                                                      Insert.
```

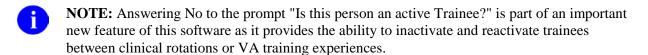
All the data on this form should be filled in for registered trainees, Figure 3-7 shows that the user has answered YES to this question. A YES response causes the following two things to happen:

- All fields except "Trainee Inactive (Date):," become editable, listed as follows:
 - VHA TRAINING FACILITY (#12.4) added with Patch XU*8.0*344
 - START OF TRAINING (#12.8) added with Patch XU*8.0*344
 - LAST TRAINING MONTH & YEAR (#12.3) modified with Patch XU*8.0*344
 - PROGRAM OF STUDY (#12.2) added with Patch XU*8.0*251
 - CURRENT DEGREE LEVEL (#12.1) added with Patch XU*8.0*251
 - DEGREE (Field #10.6)
 - TITLE (Field #8)
 - SERVICE/SECTION (Field #29)

- DOB (Field #5)
- STREET ADDRESS 1 (Field #.111)
- STREET ADDRESS 2 (Field #.112)
- STREET ADDRESS 3 (Field #.113)
- CITY (Field #.114)
- STATE (Field #.115)
- ZIP CODE (Field #.116)
- E-Mail Address: (field #.151)
- The VHA TRAINING FACILITY (#12.4) and PROGRAM OF STUDY (#12.2) fields become required. This means that you *must* edit this field in order to save your edits and exit the Edit an Existing User option.

Answering NO to the prompt "Is this person an active Trainee?" jumps you directly to the "Trainee Inactive (Date):" prompt. Respond to this prompt with the date the trainee is no longer participating in a formal academic training experience at your facility and complete filling out the form by updating any changes in the following editable fields:

- DEGREE (Field #10.6)
- TITLE (Field #8)
- SERVICE/SECTION (Field #29)
- DOB (Field #5)
- all address fields (Fields #.111, #.112, #.113, #.114, #.115, and #.116)
- E-MAIL ADDRESS (Field #.151)



Of particular note, Figure 3-7 shows that the following registered trainee information has been entered for the user named ONE KRNUSER:

- The Current Degree Level value, "MASTER'S," is the current degree held by the registered trainee upon entry into the current training program or residency at this particular VA medical facility.
- The Current Program of Study value, "HEALTH INFORMATION," is a discipline that best describes the current program of study. Answer this prompt with a selection from the list of predefined entries in the PROGRAM OF STUDY file (#8932.2).
- The Last Training Month and Year is "Oct 2007." This is the last year anticipated for training at this particular VAMC.
- The Trainee Inactive Date is only editable if you answer NO to the prompt "Is this person an active Trainee?:." This is the date that the trainee will no longer be an active registered trainee.

3.7 Using the Trainee Registration Inquiry Option

Figure 3-8 illustrates how to access the Trainee Registration Inquiry option from the OAA Trainee Registration Menu:

Figure 3-8. Using the Trainee Registration Inquiry option

```
Select User Management Option: OAA <Enter> OAA Trainee Registration Menu

E Edit Trainee Registration Data
I Trainee Registration Inquiry
R Trainee Reports Menu ...

Select OAA Trainee Registration Menu Option: I <Enter> Trainee Registration Inquiry
Select NEW PERSON NAME: KRNUSER,ONE

DEVICE: <Enter> SYSTEM Right Margin: 80// <Enter>
```

The Trainee Registration Inquiry option [XU-CLINICAL TRAINEE INQUIRY] is located on the OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU]. This option displays various attributes of registered trainees.

Figure 3-9 shows the output displayed after registered trainee information has been entered for the user ONE KRNUSER.

Figure 3-9. Trainee Registration Inquiry option

```
Registered Trainee Inquiry
KRNUSER, ONE (#76)
                                                   Last Sign-on: Jun 23, 2005
  Office Phone:
                                                              SSN: ****5556
 E-Mail Address: one.krnuser@med.va.gov
          Title: DEVELOPER
Service/Section: IRM
Address:
 250 Main St.
 Anytown, CALIFORNIA
                      99999
Currently a Registered Trainee?: YES Date HL7 Record Built: MAY 5,2005
Date no longer a trainee:
Date started training: JAN 7,2004
Current Degree Lvl: MASTER'S
 Program of Study: HEALTH INFORMATION
Last Training Month & Year: Oct 7 2007
VHA Training Facility: SAN FRANCISCO
```

3.8 Kernel User Inquiry Option

The User Inquiry option and the associated print template affected by the Trainee Registration Core Dataset software are shown in Table 3-3.

Table 3-3. Affected Kernel option with associated print template

Option and Menu Text	Print Template
XUSERINQ	XUSERINQ
User Inquiry	

The Kernel option itself has not been changed, but the print template has been modified to display the following three fields from the NEW PERSON file for registered trainees:

- CURRENT DEGREE LEVEL (#12.1) added with Patch XU*8.0*251
- PROGRAM OF STUDY (#12.2) added with Patch XU*8.0*251
- LAST TRAINING MONTH & YEAR (#12.3) modified with Patch XU*8.0*344
- VHA TRAINING FACILITY (#12.4) added with Patch XU*8.0*344

3.9 Using the Trainee Reports Menu Option

The Trainee Reports Menu option is new with the Trainee Registration Core Dataset software. This option offers the following two report menus, providing VA facilities registered trainee information from local site databases and information on transmission reports to the OAA:

- Local Trainee Registration Reports ...
- Trainee Transmission Reports to OAA ...
- NOTE: Data for trainee reports can be retrieved as of June 2003, which is the date of the enactment of the VHA Directive 2003-032, Clinical Trainee Registration. There is no existing information on registered trainees before this date.

3.9.1 Local Trainee Registration Reports

Figure 3-10 lists the various trainee registration reports that provide information from local site databases.

Figure 3-10. Using the Local Trainee Registration Reports option

```
Select User Management Option: OAA <Enter> OAA Trainee Registration Menu

E Edit Trainee Registration Data
I Trainee Registration Inquiry
R Trainee Reports Menu ...

Select OAA Trainee Registration Menu Option: r <Enter> Trainee Reports Menu
Local Trainee Registration Reports ...
Trainee Transmission Reports to OAA ...

Select Trainee Reports Menu Option: local Trainee Registration Reports

List of Active Registered Trainees
List of All Registered Trainees
List of Inactive Registered Trainees
Total Count of Registered Trainees
Select Local Trainee Registration Reports Option:
```

Examples of all four types of local trainee registration reports, Figure 3-10, are shown on the next couple of pages.

3.9.1.1 List of Active Registered Trainees

This option produces a list of all local active registered trainees.

Figure 3-11. Report option—List of Active Registered Trainees

```
Select Local Trainee Registration Reports Option: List of Active Registered Trainees
DEVICE: <Enter> SYSTEM Right Margin: 80// <Enter>

Active Registered Trainee List JUN 28,2005 13:42 PAGE 1
NAME/LAST4 SERVICE

ACTIVE TRAINEE?: YES
TRAINING FACILITY: SAN FRANCISCO
KRNUSER,TWO(7777) IRM
KRNUSER,ONE(3333) IRM
```

Sites can schedule this report at regular intervals because the SCHEDULING RECOMMENDED field (#209), located in the OPTION file (#19), is set to YES.



NOTE: This report can be lengthy depending on the numbers of registered trainees at various sites. Therefore, when producing this report it is recommended that it be queued.

3.9.1.2 List of All Registered Trainees

This option produces a report, listing both active and inactive local registered trainees.

Figure 3-12. Report option—List of All Registered Trainees

Select Local Trainee Registration Reports Option: List of All Registered Trainees DEVICE: <enter> SYSTEM Right Margin: 80// <enter></enter></enter>				
Registered Trainee List NAME/LAST4	JUN 28,2005 13:51 SERVICE	PAGE 1 DATE		
TRAINEE?: NO TRAINING FACILITY:	BECKLEY VAMC			
KRNUSER, FOUR (0001)	IRM	04/22/05		
TRAINING FACILITY: KRNUSER, THREE (5555)	SAN FRANCISCO IRM	06/24/05		
KRNUSER, FIVE (4444)	IRM	03/02/05		
KRNUSER, SIX(6666)	IRM	03/09/05		
TRAINEE?: YES				
TRAINING FACILITY:	SAN FRANCISCO			
KRNUSER, TWO(7777)	IRM			
KRNUSER, ONE(3333)	IRM			

Sites can schedule this report at regular intervals because the SCHEDULING RECOMMENDED field (#209), located in the OPTION file (#19), is set to YES.



NOTE: This report can be lengthy depending on the numbers of registered trainees at various sites. Therefore, when producing this report it is recommended that it be queued.

3.9.1.3 List of Inactive Registered Trainees

This option produces a list of all local inactive registered trainees.

Figure 3-13. Report option—List of Inactive Registered Trainees

Trainees	n Reports Option: List of Inactive R Margin: 80// <enter></enter>	egistered		
Non-Active Registered Trainees NAME/LAST4	JUN 28,2005 14:06 SERVICE	PAGE 1 DATE		
ACTIVE TRAINEE?: NO TRAINING FACILITY: BECKLEY VAMC KRNUSER, FOUR(0001) IRM 04/22/05				
TRAINING FACILITY: KRNUSER, THREE (5555) KRNUSER, FIVE (4444) KRNUSER, SIX (6666)	SAN FRANCISCO IRM IRM IRM	06/24/05 03/02/05 03/09/05		

Sites can schedule this report at regular intervals because the SCHEDULING RECOMMENDED field (#209), located in the OPTION file (#19), is set to YES.



NOTE: This report can be lengthy depending on the numbers of registered trainees at various sites. Therefore, when producing this report it is recommended that it be queued.

3.9.1.4 Total Count of Registered Trainees

This option reports the total number of local registered trainees entered into the sites' New Person file (#200). This allows the OAA to compare the number of trainees on their Web site with the total number of trainees in the VistA system, offering them the ability to crosscheck and verify that they are the same totals. This report counts both active and inactive trainees.

Figure 3-14. Report option—Total Count of Registered Trainees

```
Select Local Trainee Registration Reports Option: Total Count of Registered Trainees
DEVICE: <Enter> SYSTEM Right Margin: 80// <Enter>

OAA Registered Trainee Database Count JUN 28,2005 14:10 PAGE 1

COUNT 6
```

3.9.2 Trainee Transmission Reports to OAA

Figure 3-15 lists the various types of trainee registration transmission reports, which are sent to the Office of Academic Affiliations (OAA).

Figure 3-15. Using the Trainee Transmission Reports to OAA option

```
Select OAA Trainee Registration Menu Option: r <Enter> Trainee Reports Menu

Local Trainee Registration Reports ...
Trainee Transmission Reports to OAA ...

Select Trainee Reports Menu Option: Trainee Transmission Reports to OAA

Trainee Transmission Report by Date
Trainee Transmission Report by Range
Trainee Transmission Report Selectable Items

Select Trainee Transmission Reports to OAA Option:
```

Examples of all three types of trainee registration transmission reports, Figure 3-15, are shown on the next couple of pages.

3.9.2.1 Trainee Transmission Report by Date

This option produces a report of local registered trainee records sent to the Office of Academic Affiliations (OAA) within a defined date range. VA medical facilities can use the information to verify:

- Which trainee records were sent from a particular site to the OAA on a specific date
- The total record count transmitted

Figure 3-16 shows the user has elected to produce a report of all trainees sent to the OAA from June 6, 2005 through June 10, 2005.

Trainee records are sorted by the date they were sent to the OAA, shown on the report following the header "DATE TRANSMITTED TO OAA:." The VHA training facility from which the records were created and sent is displayed within each date group, shown on the report following the header "VHA TRAINING FACILITY:." Figure 3-16 uses the Buffalo VAMC, which is an integrated VA medical facility, as an example. Buffalo, Albany, and Syracuse are shown as the VHA training facilities from which trainee records were transmitted on June 7, 2005 (JUN 7,2005). On June 10, 2005 (JUN 10,2005) trainee records were transmitted to the OAA from Buffalo, only. The trainee names and last four digits of their Social Security Numbers are displayed representing each record sent.

Records are subtotaled at the bottom of each date group, shown on the report following the header "SUBCOUNT." The grand total for all records sent to the OAA within the date range requested at report generation follows the header "COUNT."

The date and time that the report was run is included in the header to the right of the report title.

Figure 3-16. Report option—Trainee Transmission Report by Date

```
Select Trainee Transmission Reports to OAA Option: T
       Trainee Transmission Report by Date
     Trainee Transmission Report by Range
   3 Trainee Transmission Report Selectable Items
CHOOSE 1-3: 1 <Enter> Trainee Transmission Report by Date
* Previous selection: DATE TRANSMITTED TO OAA from May 30, 2005
START WITH DATE HL7 TRAINEE RECORD BUILT: May 30, 2005// 6/6/05 <Enter> (JUN 06,
GO TO DATE HL7 TRAINEE RECORD BUILT: Jun 3, 2005// 6/10/05 <Enter> (JUN 10, 2005)
DEVICE: <Enter> SYSTEM Right Margin: 80// <Enter>
                                   JUN 29,2005 14:46 PAGE 1
Registered Trainee Transmission Report
       NAME
                                      SSN
______
      DATE TRANSMITTED TO OAA: JUN 7,2005
         VHA TRAINING FACILITY: BUFFALO
                                       *****0981
        KRNUSER, FOURTEEN
SUBCOUNT 1
         VHA TRAINING FACILITY: SYRACUSE
                                        ****5556
        KRNUSER, THIRTY
SUBCOUNT 1
        VHA TRAINING FACILITY: ALBANY
        KRNUSER, FIFTEEN
                                       ****3333
                                       *****4321
        KRNUSER, TWENTY
                                       *****1234
        KRNUSER, NINE
                                       ****1212
        KRNUSER, THIRTYFIVE
                                       *****7676
        KRNUSER, TEN
SUBCOUNT 5
SUBCOUNT 7
Registered Trainee Transmission Report JUN 29,2005 14:46 PAGE 2
      NAME
                                       SSN
______
      DATE TRANSMITTED TO OAA: JUN 10,2005
         VHA TRAINING FACILITY: BUFFALO
                                       *****5556
        KRNUSER, FIVE
SUBCOUNT 1
SUBCOUNT 1
```

3.9.2.2 Trainee Transmission Report by Range

This option produces a report showing the total count(s) for local registered trainee records sent to the OAA within a defined period. VA medical facilities can use the information to verify the total number of records sent from the site to the Office of Academic Affiliations (OAA) for any given date.

Figure 3-17 shows a scenario in which a report is being produced to list the total number of trainees sent to the OAA from June 6, 2005 through June 10, 2005.

Total counts for records sent to the OAA are sorted by the date of transmission, shown on the report following the header "DATE TRANSMITTED TO OAA:." The VHA training facility from which the records were created and sent is displayed within each date group, shown on the report following the header "VHA TRAINING FACILITY:." Figure 3-17 uses the Buffalo VAMC, which is an integrated VA medical facility, as an example. The report shows the total counts for trainee records sent to the OAA on June 7, 2005 (JUN 7,2005) from the VHA training facilities Buffalo, Albany, and Syracuse. On June 10, 2005 (JUN 10,2005) the report shows that only Buffalo sent trainee records as the total counts are shown for Buffalo, only.

Records are subtotaled at the bottom of each date group, shown on the report following the header "SUBCOUNT." The grand total for all records sent to the OAA within the date range requested at report generation follows the header "COUNT."

The date and time the report was printed is included in the header to the right of the report title.

Figure 3-17. Report option—Trainee Transmission Report by Date

```
Select Trainee Transmission Reports to OAA Option: TRAINEE TRANSMISSION REPORT BY
RANGE
         Trainee Transmission Report by Date
   1
         Trainee Transmission Report by Range
         Trainee Transmission Report Selectable Items
    3
CHOOSE 1-3: 2 <Enter> Trainee Transmission Report by Range
* Previous selection: DATE TRANSMITTED TO OAA from May 30,2005 to Jun 6,2005@24:00
START WITH DATE HL7 TRAINEE RECORD BUILT: Jun 6, 2005// 6/6/05 <Enter> (JUN 06,
GO TO DATE HL7 TRAINEE RECORD BUILT: Jun 3, 2005// 6/10/05 <Enter> (JUN 10, 2005)
DEVICE: <Enter> SYSTEM Right Margin: 80// <Enter>
Summary Registered Trainee Transmission Report
                                              JUN 29,2005 16:19 PAGE 1
       DATE TRANSMITTED TO OAA: JUN 7,2005
           VHA TRAINING FACILITY: BUFFALO
             NAME: KRNUSER, FOURTEEN
SUBCOUNT 1
          VHA TRAINING FACILITY: SYRACUSE
             NAME: KRNUSER, THIRTY
SUBCOUNT 1
          VHA TRAINING FACILITY: ALBANY
             NAME: KRNUSER, FIFTEEN
             NAME: KRNUSER, TWENTY
             NAME: KRNUSER, NINE
             NAME: KRNUSER, THIRTYFIVE
             NAME: KRNUSER, TEN
SUBCOUNT 5
SUBCOUNT 7
       DATE TRANSMITTED TO OAA: JUN 10,2005
          VHA TRAINING FACILITY: BUFFALO
             NAME: KRNUSER, FIVE
SUBCOUNT 1
SUBCOUNT 1
COUNT
         8
```

3.9.2.3 Trainee Transmission Report Selectable Items

This option produces a report of all local trainee records sent to the Office of Academic Affiliations (OAA) defined by the following two ranges:

- Date
- VHA training facility

Integrated VA medical facilities can use this option to report which trainee records were sent to the OAA for either one or all associated facility divisions within a defined date range.

Figure 3-18 shows an example of a report where the user has elected to print a list of all trainee records sent from the Albany training facility to the OAA between the dates May 16, 2005 through May 20, 2005.

Trainee records are sorted by the date that they were sent to the OAA, shown on the report following the header "DATE TRANSMITTED TO OAA:." The VHA training facility from which the records were created and sent is displayed within each date group, shown on the report following the header "VHA TRAINING FACILITY:." Figure 3-18 uses the Buffalo VAMC, which is an integrated VA medical facility, as an example. The date range entered from which to report on trainee records sent to the OAA is June 6 2005 through June 10 2005. The VHA training facilities selected are Buffalo and Albany. The report output shows that trainee records were sent to the OAA from both the Buffalo and Albany VHA training facilities on June 7, 2005. On June 10, 2005 (JUN 10,2005) a trainee record was transmitted to the OAA from Buffalo, only. The trainee names and last four digits of their Social Security Numbers are displayed representing each record sent.

Records are subtotaled at the bottom of each date group, shown on the report following the header "SUBCOUNT." The grand total for all records sent to the OAA within the date range requested at report generation follows the header "COUNT."

The date and time that the report was run is included in the header to the right of the report title.



NOTE: In VA FileMan, using the values FIRST to LAST to select VHA Training Facilities produces records for all VA medical facilities resident in your local database.

Figure 3-18. Report option—Trainee Transmission Report Selectable Items

```
Select Trainee Transmission Reports to OAA Option: TR
   1 Trainee Transmission Report by Date
   2 Trainee Transmission Report by Range
       Trainee Transmission Report Selectable Items
CHOOSE 1-3: 3 <Enter> Trainee Transmission Report Selectable Items
* Previous selection: DATE TRANSMITTED TO OAA from May 9,2005 to May 13,2005@24:00
START WITH DATE HL7 TRAINEE RECORD BUILT: May 09,2005// 6/6/05 <Enter> (JUN 6, 2005)
GO TO DATE HL7 TRAINEE RECORD BUILT: May 13,2005// 6/10/05 <Enter> (JUN 10, 2005)
 * Previous selection: VHA TRAINING FACILITY equals BUFFALO
 START WITH VHA TRAINING FACILITY: Buffalo// Albany
 GO TO VHA TRAINING FACILITY: Buffalo// <Enter>
DEVICE: <Enter> SYSTEM Right Margin: 80// <Enter>
Selectable Registered Trainee Transmission Report
                                          JUN 30,2005 13:25 PAGE 1
                                          SSN
______
       DATE TRANSMITTED TO OAA: JUN 07,2005
         VHA TRAINING FACILITY: BUFFALO
                                         *****0981
        KRNUSER, FOURTEEN
SUBCOUNT 1
         VHA TRAINING FACILITY: ALBANY
                                          *****3333
        KRNUSER, FIFTEEN
        KRNUSER, TWENTY
                                          ****4321
                                          ****1234
        KRNUSER, NINE
        KRNUSER, THIRTYFIVE
                                          ****1212
        KRNUSER, TEN
                                          *****7676
SUBCOUNT 5
SUBCOUNT 6
Selectable Registered Trainee Transmission Report
                            JUN 30,2005 13:25 PAGE 2
        NAME
                                         SSN
       DATE TRANSMITTED TO OAA: JUN 10,2005
         VHA TRAINING FACILITY: BUFFALO
                                         *****5556
        KRNUSER, FIVE
SUBCOUNT 1
COUNT
```

3.10 Sort Criteria for Customizing Reports

This section lists the VA FileMan conditional sort criteria used in each report on the Trainee Reports Menu [XU-CLINICAL TRAINEE REPORTS]. Sites wishing to elaborate upon or create their own local reports can use these sort criteria as a basis to do so. The conditional sort criteria are listed chronologically, beginning with the first sort field in ascending order by option name, menu text, and sort template.

Table 3-4. Sort criteria for customizing the List of Active Registered Trainees report

Option name	XU-CLINICAL ACTIVE TRAINEE
Menu text	List of Active Registered Trainees
Sort template	[XU-CLINICAL ACTIVE TRAINEE]
Sort criteria	1. PROGRAM OF STUDY (#12.2) if field value is not null (i.e., empty)
	2. CLINICAL CORE TRAINEE (#12.6) if field equals Y (YES) or is null (i.e., empty)
	3. VHA TRAINING FACILITY (#12.4) if field value is not null (i.e., empty)

Table 3-5. Sort criteria for customizing the List of Inactive Registered Trainees report

Option name	XU-CLINICAL INACTIVE TRAINEE
Menu text	List of Inactive Registered Trainees
Sort template	[XU-CLINICAL INACTIVE TRAINEE]
Sort criteria	1. PROGRAM OF STUDY (#12.2) if field value is not null (i.e., empty)
	2. CLINICAL CORE TRAINEE (#12.6) if field equals N (NO)
	3. VHA TRAINING FACILITY (#12.4) if field value is not null (i.e., empty)

Table 3-6. Sort criteria for customizing the Total Count of Registered Trainees report

Option name	XU-CLINICAL TRAINEE DB COUNT
Menu text	Total Count of Registered Trainees
Sort template	[XU-CLINICAL TRAINEE DB COUNT]
Sort criteria	PROGRAM OF STUDY (#12.2) if field value is not null (i.e., empty)

Table 3-7. Sort criteria for customizing the List of All Registered Trainees report

Option name	XU-CLINICAL TRAINEE LIST								
Menu text	st of All Registered Trainees								
Sort template	(U-CLINICAL TRAINEE LIST]								
Sort criteria	PROGRAM OF STUDY (#12.2) if field value is not null (i.e., empty)								
	2. CLINICAL CORE TRAINEE (#12.6):								
	If field equals Y (YES)								
	If field equals N (NO)								
	Null value is equivalent to Yes								
	3. VHA TRAINING FACILITY (#12.4) if field value is not null (i.e., empty)								

Table 3-8 Sort criteria for customizing the Trainee Transmission Report by Date

Option name	XU-CLINICAL TRAINEE TRANSA
Menu text	Trainee Transmission Report by Date
Sort template	[XU-CLINICAL TRAINEE TRANSA]
Sort criteria	DATE HL7 TRAINEE RECORD BUILT (#12.5) the user sees: DATE TRANSMITTED TO OAA
	2. All VHA TRAINING FACILITY (#12.4) (includes null values)
	3. NAME (#.01) if field value is not null (i.e., empty)

Table 3-9. Sort criteria for customizing the Trainee Transmission Report Selectable Items

Option name	XU-CLINICAL TRAINEE TRANSB
Menu text	Trainee Transmission Report Selectable Items
Sort template	[XU-CLINICAL TRAINEE TRANSB]
Sort criteria	1. DATE HL7 TRAINEE RECORD BUILT (#12.5) the user sees:
	DATE TRANSMITTED TO OAA
	2. NAME (#.01) if field value is not null (i.e., empty)

Table 3-10. Sort criteria for customizing the Trainee Transmission Report by Range

Option name	XU-CLINICAL TRAINEE TRANSC
Menu text	Trainee Transmission Report by Range
Sort template	[XU-CLINICAL TRAINEE TRANSC]
Sort criteria	DATE HL7 TRAINEE RECORD BUILT (#12.5) the user sees: DATE TRANSMITTED TO OAA
	2. All VHA TRAINING FACILITY (#12.4) (includes null values)
	3. NAME (#.01) if field value is not null (i.e., empty)

Editing and Displaying VHA Registered Trainee Data

4 HL7 Interface Specifications

This interface specification is intended to identify the VistA information that will be shared as part of the Trainee Registration Core Dataset project. The sharing of this information will be triggered by specific VistA events. Both the exact events and the messages used to share this data will be reviewed.

The Trainee Registration Core Dataset application will make use of and create messages using the abstract message approach and encoding rules specified by the HL7 standard. The HL7 VistA application will be used for communicating data associated with various events that occur in health care environments.

The formats of these messages conform to HL7 interface standards, Version 2.4.

4.1 Assumptions

This interface documentation assumes that communication between the systems is established and maintained by VistA/Kernel processes. The discussion of specific technical issues related to this aspect of communication is beyond the scope of this chapter. This documentation also assumes a communication server utilizing VistA HL7 Version 1.6 or a similar compatible message communicator. VistA Kernel, MailMan, VA FileMan, and HL7 software applications are assumed the most recent versions and fully patched.

4.2 Sending System and Receiving System

Messaging occurs within the context of any VistA system being the originator of the message (Sending System) and a centralized database (Receiving System) located within the VHA Office of Academic Affiliations (OAA).

4.3 Data Capture and Transmission

Updates to the registered trainee data will signal the creation of individual messages. A scheduled (daily) task will build a batch of messages for transmission to the OAA.



REF: For more information on a scheduled daily task to build the batch messages for transmission to the VHA Office of Academic Affiliations, please refer to the section titled "Background Jobs" in the "Technical Manual Information" section of this supplement.

4.4 Batch Messages

Each batch message will consist of PMU-B02 messages. Each message represents a single entry from the NEW PERSON file (#200) that was updated and is a part of the Trainee Registration Core Dataset. Below is an example of a batch of two messages:

Figure 4-1. Sample of two batch HL7 messages

```
BHS^~|\&^XUOAA PMU^^XUOAA ACK^^20030520123707-0800^^~P~PMU|B02~2.4^^99820884^
MSH^~ | \&^XUOAA PMU^^^^^PMU~B02^99820884-2^T^2.4^^^^USA
EVN^B02^20030519^^^^662~SAN FRANCISCO
STF^9152~IEN~NEW
PERSON^666333333~~~USSSA~SSATCDDEVELOPER~ONE^^19810919^^^IRM~~SERVICE/SECTION^^130
1 CLAY STREET, 1301 Clay St., #1350N, Development & Infrastructure~Veterans Health
Administration~Oakland~CA~94612-5217~USA^^20020724132542-
0700^^one.rtcdeveloper@med.va.gov^^^DEVELOPER
PRA^^^^HEALTH INFORMATION~~~~20070600
ORG^1^662~SAN FRANCISCO^IRM~~SERVICE/SECTION^^^^~HEALTH INFORMATION~PROGRAM OF
STUDY^20020624132542-0700~20020624132542-0700
EDU^1^MAS
MSH^~ | \&^XUOAA PMU^^^^^PMU~B02^9982783-1^T^2.4^^^^USA
EVN^B02^20040526^^^^662~SAN FRANCISCO
STF^9152~IEN~NEW
PERSON^666744635~~~USSSA~SS^RTCDDEVELOPTER~TWO^^^19551004^^^IRM~~SERVICE/SECTION^^13
01 Clay St., #1350N, Pharmacy Development~Veterans Health
Administration~Oakland~CA~94612~USA^^^^two.rtcddeveloper@med.va.gov
^^^DEVELOPER
PRA^^^^DIETETICS~~~20060600
ORG^1^662~SAN FRANCISCO^IRM~~SERVICE/SECTION^^^^^~DIETETICS~PROGRAM OF
STUDY^20001101~
EDU^1^DOC
BTS<sup>2</sup>
```

4.5 Batch Acknowledgments

Since HL7 messaging is being delivered using MailMan, Simple Mail Transport Protocol (SMTP), the OAA opted to not generate an HL7 application acknowledgement. This is because MailMan uses the guaranteed message delivery of SMTP. If the project ever changes to Minimal Lower Level Protocol (MLLP), then the OAA may be required to generate the application acknowledgement.

4.6 HL7 Message Profile for PMU-B02

The following is a description of an HL7 message profile as defined by the HL7 organization. Z (extended) elements are not used.

Table 4-1. HL7 Message Profile for PMU-B02

Interface ID	XUOAA PMU
Organization	
HL7 Version	HL7 2.4
Spec Version	HL7 2.4
Application Role	Sender
Conformance Type	Implementation
Encodings	ER7
Event Description	- Add personnel record
Message Type	PMU
Event Type	B02
Order Control Code	
Message Structure	BHS,{MSH,EVN,STF,PRA,ORG,EDU}BTS
Structure Type	PMU_B01
Accept Ack	
Application Ack	
Ack Mode	
Static Profile ID	
Dynamic Profile ID	

4.7 HL7 Control Segments

This section defines the HL7 control segments supported by VistA. The messages are presented separately and defined by category; segments are also described. The messages are presented in the following categories:

- Message Control
- Unsolicited Transactions from VistA

4.8 Message Definitions

From the VistA perspective, incoming or outgoing messages are handled or generated based on an event.

In this section and in the sections following, these elements are defined for each message:

- The trigger events.
- The message event code.
- A list of segments used in the message.
- A list of fields for each segment in the message.

Each message is composed of segments. Segments contain logical groupings of data. Segments may be optional or repeatable. Square brackets ([]) indicate the segment is optional, curly brackets ({}) indicate the segment is repeatable. For each message category there will be a list of HL7 standard segments.

4.9 Message Control Segments

This section describes the message control segments contained in message-types described in this document. These are generic descriptions. All of the segments described in this section are included in messages in this document. The VistA descriptions and mappings will be as specified here unless otherwise noted.

- BHS—Batch Header Segment (required, *not* repeatable)
- BTS—Batch Trailer Segment (required, not repeatable)
- MSH—Message Header (required, *not* repeatable)
- EVN—Event Type Segment (required, *not* repeatable)
- STF—Staff Identification (required, *not* repeatable)
- PRA—Practitioner Detail (required, repeatable)
- ORG—Practitioner Organization Unit (required, repeatable)
- EDU—Educational Detail (required, repeatable)

4.9.1 Segment Table Definitions

For each segment, the data elements are described in table format on the following pages. Each table includes information such as the sequence number (SEQ), data type (DT), maximum length (LEN), required or optional (R/O), repeatable (RP/#), the table number (TBL #), the element name, and the VistA description.

Legend

This Legend serves as a key to define the column headings for the segment tables documented on the following pages.

Codes:

- R required
- RE required or empty
- C conditional
- CE conditional or empty
- O optional
- NS not supported
- U unknown

Abbreviations:

- seq sequence
- DT datatype
- Len length
- Opt optionality
- Rep repeatable
- Min quantity min
- Max quantity max
- Tbl table

4.9.2 BHS—Batch Header Segment (Required, not Repeatable)

Table 4-2. HL7 Batch Header Segment (BHS)

Element Name	Example Value	Seq	Dt	Len	Opt	Rep	Min	Max	Tbl	Ref
Batch Field Separator	٨	1	ST	1	R	False	1	1		2.16.2.1
Batch Encoding	1/ 0	2	ST	3	R	False	1	4		2.16.2.2
Characters	~ \&	2	31	3	K	raise	I	1		2.10.2.2
Batch Sending	XUOAA PMU	3	ST	15	0	False	0	1		2.16.2.3
Application	AUGAA FIVIO	3	31	13	U	raise	U	ı		2.10.2.3
Batch Sending		4	ST	20	R	False	0	1		2.16.2.4
Facility		4	31	20	IX	i aise	U	I		2.10.2.4
Batch Receiving	XUOAA ACK	5	ST	15	R	False	0	1		2.16.2.3
Application	AUUAA AUK	3	31	13	IX	i aise	U	I		2.10.2.3
Batch Receiving		6	ST	20	0	False	0	1		2.16.2.4
Facility		0	31	20	U	i aise	U	'		2.10.2.4
Batch Creation		7	TS	26	0	False	0	1		2.16.2.7
Date/Time		'	10	20		i aise	U	'		2.10.2.7
Date/Time	20021016154059- 0800	1	NM	0	R					
degree of precision		2	ST	0	0					
Batch Security		8	ST	40	0	False	0	1		2.16.2.8
Batch Name/ID/Type	~P~PMU B02~2.4	9	ST	20	R	False	0	1		2.16.2.9
Batch Name/ID/Type_rep		9	ST	20	0	False	0	1		2.16.2.9
Batch Comment		10	ST	80	0	False	0	1		2.16.3.2
Batch Control ID	99820884	11	ST	20	R	False	0	1		2.16.2.11
Reference Batch Control ID		12	ST	20	0	False	0	1		2.16.2.12

4.9.3 BTS—Batch Trailer Segment (Required, *not* Repeatable)

Table 4-3. HL7 Batch Trailer Segment (BTS)

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Batch Message Count	2	1	ST	10	0	False	0	1		2.16.3.1
Batch Comment		2	ST	80	0	False	0	1		2.16.3.2
Batch Totals		3	NM	100	0	True	0	0		2.16.3.3

4.9.4 MSH—Message Header Segment (Required, *not* Repeatable)

Table 4-4. HL7 Message Header Segment (MSH)

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Field Separator	۸	1	ST	1	R	False	1	1		2.16.9.1
Encoding Characters	~ \&	2	ST	4	R	False	1	1		2.16.9.2
Sending Application		3	HD	180	R	False	0	0	0361	2.16.9.3
namespace ID	XUOAA PMU	1	IS	3	R				0363	
universal ID		2	ST	3	NS					
universal ID type		3	ID	3	NS				0301	
Sending Facility		4	HD	180	NS	False	0	0	0362	
namespace ID		1	IS	3	NS				0363	
universal ID		2	ST	3	NS					
universal ID type		3	ID	3	NS				0301	
Receiving Application		5	HD	180	NS	False	0	0	0361	
namespace ID		1	IS	3	NS				0363	
universal ID		2	ST	3	NS					
universal ID type		3	ID	3	NS				0301	
Receiving Facility		6	HD	180	NS	False	1	1	0362	2.16.9.6
namespace ID		1	IS	3	NS				0363	
universal ID		2	ST	3	NS					
universal ID type		3	ID	3	NS				0301	
Date/Time Of Message		7	TS	26	NS	False	1	1		2.16.9.7
Date/Time		1	NM	0	NS					
degree of precision		2	ST	0	NS					

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Security		8	ST	40	NS	False	1	1		2.16.9.8
Message Type		9	CM _MS G	15	NS	False	1	1	0076	2.16.9.9
message type	PMU	1	ID	3	R				0076	
trigger event	B02	2	ID	3	R				0003	
message structure		3	ID	3	NS				0354	
Message Control ID	9982783-1	10	ST	20	R	False	1	1		2.16.9.10
Processing ID		11	PT	3	R	False	1	1		2.16.9.11
processing ID	Т	1	ID	3	R				0103	
processing mode		2	ID	3	NS				0207	
Version ID		12	VID	60	R	False	1	1	0104	2.16.9.12
version ID	2.4	1	ID	3	R				0104	
internationalization code		2	CE	0	NS					
international version ID		3	CE	0	NS					
Sequence Number		13	NM	15	NS	False	0	0		2.16.9.13
Continuation Pointer		14	ST	180	NS	False	0	0		2.16.9.14
Accept Acknowledgment Type		15	ID	2	NS	False	1	1	0155	2.16.9.15
Application Acknowledgment Type		16	ID	2	NS	False	1	1	0155	2.16.9.16
Country Code	USA	17	ID	3	RE	False	1	1	0399	2.16.9.17
Character Set		18	ID	16	NS	False	0	0	0211	2.16.9.18
Principal Language Of Message		19	CE	250	NS	False	0	0		2.16.9.19
Alternate Character Set Handling Scheme		20	ID	20	NS	False	0	0	0356	2.16.9.20
Conformance Statement ID		21	ID	10	NS	False	0	0	0449	2.16.9.21

4.9.5 EVN—Event Type Segment (Required, *not* Repeatable)

Table 4-5. HL7 Event Type Segment (EVN)

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Event Type Code	B02	1	ID	3	R	False		1	0003	3.4.1.1
Recorded Date/Time		2	TS	26	R	False		1		3.4.1.2
Date/Time	20040526	1	NM	0	R					
degree of precision		2	ST	0	NS					
Date/Time Planned Event		3	TS	26	NS	False		0		3.4.1.3
Event Reason Code		4	IS	3	NS	False		0	0062	3.4.1.4
Operator ID		5	XCN	250	NS	False		0	0188	3.4.1.5
Event Occurred		6	TS	26	NS	False		0		3.4.1.6
Event Facility		7	HD	180	R	False		0		3.4.1.7
namespace ID	662	1	IS	3	R					
universal ID	SAN FRANCISCO	2	ST	30	R					

4.9.6 STF—Staff Identification (Required, *not* Repeatable)

Table 4-6. HL7 Staff Identification Segment (STF)

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Primary Key Value - STF		1	CE	250	С	False	0	1	9999	15.4.6.1
identifier	9152	1	ST		R					
text	IEN	2	ST		R					
name of coding system	NEW PERSON	3	IS		R				0396	
alternate identifier		4	ST		NS					
alternate text		5	ST		NS					
name of alternate coding system		6	IS		NS				0396	
Staff ID Code		2	СХ	60	R	False	1	1		15.4.6.2
ID	666744635	1	ST		R					
Check digit		2	ST		NS					
code identifying the check digit scheme		3	ID		NS				0061	

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
employed										
assigning authority		4	HD		R					
namespace ID	USSSA	1	IS		R				0363	
universal ID		2	ST		NS					
universal ID type		3	ID		NS				0301	
identifier type code (ID)	SS	5	ID		R				0203	
assigning facility		6	HD		NS					
effective date (DT)		7	DT		NS					
expiration date		8	DT		NS					
Staff Name		3	XPN	250	R	False	1	1		15.4.6.3
family name		1	FN		R					
surname	RTCDDEVELOPTER	1	ST		R					
own surname prefix		2	ST		NS					
own surname		3	ST		NS					
surname prefix from partner/spouse		4	ST		NS					
surname from partner/spouse		5	ST		NS					
given name	ONE	2	ST		R					
second and further given names or initials thereof		3	ST		RE					
suffix (e.g., JR or III)		4	ST		RE					
prefix (e.g., DR)		5	ST		RE					
degree (e.g., MD)		6	IS		RE				0360	
name type code		7	ID		NS				0200	
Name Representation code		8	ID		NS				0465	
name context		9	CE	0	NS					
name validity range		10	DR		NS					
name assembly		11	ID		NS				0444	

HL7 Interface Specifications

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
order										
Staff Type		4	IS	2	NS	False	0	0	0182	15.4.6.4
Administrative Sex		5	IS	1	NS	False	0	0	0001	15.4.6.5
Date/Time Of Birth	19810919	6	TS	26	R	False	0	0		15.4.6.6
Active/Inactive Flag		7	ID	1	NS	False	0	0	0183	15.4.6.7
Department		8	CE	250	NS	False	0	0	0184	15.4.6.8
Hospital Service		9	CE	250	R	False	1	1	0069	15.4.6.9
identifier	IRM	1	ST		R					
text		2	ST		R					
name of coding system	SERVICE/SECTION	3	IS		R				0396	
alternate identifier		4	ST		NS					
alternate text		5	ST		NS					
name of alternate coding system		6	IS		NS				0396	
Phone		10	XTN	250	NS	False	0	0		15.4.6.10
Office/Home Address		11	XAD	250	R	False	1	1		15.4.6.11
street address (SAD)		1	SAD		R					
street or mailing address	1301 Clay Street, #1350N, Development & Infrastructure	1	ST		R					
street name		2	ST		RE					
dwelling number		3	ST		RE					
other designation	Veterans Health Administration	2	ST		RE					
city	Oakland	3	ST		R					
state or province	CA	4	ST		R					
zip or postal code	94612-5217	5	ST		R					
country	USA	6	ID		R				0399	
address type		7	ID		NS				0190	
other geographic designation		8	ST		NS					
county/parish		9	IS		NS				0289	

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
code										
census tract		10	IS		NS				0288	
address representation code		11	ID		NS				0465	
address validity range		12	DR		NS					
Institution Activation Date		12	CM_ DIN	26	R	False	1	1		15.4.6.12
date		1	TS		R					
Date/Time		1	NM		NS					
degree of precision		2	ST		NS					
institution name		2	CE		NS					
Institution Inactivation Date		13	CM_ DIN	26	R	False	0	0		15.4.6.13
date		1	TS		R					
Date/Time	20020724132542- 0700	1	NM		R					
degree of precision		2	ST		NS					
institution name		2	CE		NS					
identifier		1	ST		NS					
text		2	ST		NS					
name of coding system		3	IS		NS				0396	
alternate identifier		4	ST		NS					
alternate text		5	ST		NS					
name of alternate coding system		6	IS		NS				0396	
Backup Person ID		14	CE	250	NS	False	0	0		15.4.6.14
E-Mail Address	one.rtcdperson@med .va.gov	15	ST	40	R	False	1	1		15.4.6.15
Preferred Method of Contact		16	CE	250	NS	False	0	0	0185	15.4.6.16
Marital Status		17	CE	250	NS	False	0	0	0002	15.4.6.17
Job Title	DEVELOPER	18	ST	20	R	False	1	1		15.4.6.18
Job Code/Class		19	JCC	20	NS	False	0	0	0327	15.4.6.19

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Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Employment Status Code		20	CE	250	NS	False	0	0	0066	15.4.6.20
Additional Insured on Auto		21	ID	1	NS	False	0	0	0136	15.4.6.21
Driver's License Number - Staff		22	DLN	25	NS	False	0	0		15.4.6.22
Copy Auto Ins		23	ID	1	NS	False	0	0	0136	15.4.6.23
Auto Ins. Expires		24	DT	8	NS	False	0	0		15.4.6.24
Date Last DMV Review		25	DT	8	NS	False	0	0		15.4.6.25
Date Next DMV Review		26	DT	8	NS	False	0	0		15.4.6.26
Race		27	CE	250	NS	False	0	0	0005	15.4.6.27
Ethnic Group		28	CE	250	NS	False	0	0	0189	15.4.6.28
Re-activation Approval Indicator		29	ID	1	NS	False	0	0	0136	15.4.6.29

4.9.7 PRA—**Practitioner Detail (Required, Repeatable)**

Table 4-7. HL7 Practitioner Detail Segment (PRA)

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Primary Key Value - PRA		1	CE	250	NS	False	0	1	9999	15.4.5.1
Practitioner Group		2	CE	250	NS	False	0	0	0358	15.4.5.2
Practitioner Category		3	IS	3	NS	False	0	0	0186	15.4.5.3
Provider Billing		4	ID	1	NS	False	0	0	0187	15.4.5.4
Specialty		5	CM_ SPD	100	R	False	0	0	0337	15.4.5.5
specialty name	HEALTH INFORMATION	1	ST		R					
governing board		2	ST		NS					
eligible or certified		3	ID		NS					
date of certification	20070600	4	DT		NS					
Practitioner ID Numbers		6	CM_ PLN	100	NS	False	0	0	0338	15.4.5.6
Privileges		7	CM_ PIP	200	NS	False	0	0		15.4.5.7
Date Entered Practice		8	DT	8	NS	False	0	0		15.4.5.8
Institution		9	CE	250	NS	False	0	0		15.4.5.9
Date Left Practice		10	DT	8	NS	False	0	0		15.4.5.10
Government Reimbursement Billing Eligibility		11	CE	250	NS	False	0	0	0401	15.4.5.11
Set ID - PRA		12	SI	60	NS	False	0	1		15.4.5.12

4.9.8 ORG—Practitioner Organization Unit (Required, Repeatable)

Table 4-8. HL7 Practitioner Organization Unit Segment (ORG)

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Set ID - ORG	1	1	SI	60	R	False	1	1		15.4.4.1
Organization Unit Code		2	CE	250	R	False	0	0	0405	15.4.4.2
identifier	662	1	ST	0	R					
text	SAN FRANCISCO	2	ST	3	R					
name of coding system		3	IS	3	NS				0396	
alternate identifier		4	ST	3	NS					
alternate text		5	ST	3	NS					
name of alternate coding system		6	IS	3	NS				0396	
Organization Unit Type Code - ORG		3	CE	250	R	False	0	0	0474	15.4.4.3
identifier	IRM	1	ST	0	R					
text		2	ST	3	NS					
name of coding system	SERVICE/SECTION	3	IS	3	R				0396	
Alternate identifier		4	ST	3	NS					
alternate text		5	ST	3	NS					
name of alternate coding system		6	IS	3	NS				0396	
Primary Org Unit Indicator		4	ID	1	NS	False	0	0	0136	15.4.4.4
Practitioner Org Unit Identifier		5	СХ	60	NS	False	0	0		15.4.4.5
Health Care Provider Type Code		6	CE	250	NS	False	0	0	0452	15.4.4.6
Health Care Provider Classification Code		7	CE	250	NS	False	0	0	0453	15.4.4.7
Health Care Provider Area of Specialization		8	CE	250	R	False	0	0	0454	15.4.4.8

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Code										
identifier		1	ST	0	NS					
text	HEALTH INFORMATION	2	ST	3	R					
name of coding system	PROGRAM OF STUDY	3	IS	3	R				0396	
alternate identifier		4	ST	3	NS					
alternate text		5	ST	3	NS					
name of alternate coding system		6	IS	3	NS				0396	
Effective Date Range		9	DR	52	R	False	0	0		15.4.4.9
range start date/time		1	TS	3	R					
Date/Time	20020624132542- 0700	1	NM	0	R					
degree of precision		2	ST	0	NS					
range end date/time		2	TS	3	R					
Date/Time	20020624132542- 0700	1	NM	0	R					
degree of precision		2	ST	0	NS					
Employment Status Code		10	CE	250	NS	False	0	0	0066	15.4.6.2 0
Board Approval Indicator		11	ID	1	NS	False	0	0	0136	15.4.4.1 1
Primary Care Physician Indicator		12	ID	1	NS	False	0	0	0136	15.4.4.1 2

4.9.9 EDU—Educational Detail (Required, Repeatable)

Table 4-9. HL7 Educational Detail Segment (EDU)

Element Name	Example Value	Seq	DT	Len	Opt	Rep	Min	Max	Tbl	Ref
Set ID - EDU	1	1	SI	60	R	False	1	1		15.4.2.1
Academic Degree	MAS	2	IS	10	R	False	1	1	0360	15.4.2.2
Academic Degree Program Date Range		3	DR	52	NS	False	0	0		15.4.2.3
Academic Degree Program ParticipationDate Range		4	DR	52	NS	False	0	0		15.4.2.4
Academic Degree Granted Date		5	DT	8	NS	False	0	0		15.4.2.5
School		6	XON	250	NS	False	0	0		15.4.2.6
School Type Code		7	CE	250	NS	False	0	0	0402	15.4.2.7
School Address		8	XAD	250	NS	False	0	0		15.4.2.8

HL7 Interface Specifications

5 Implementation and Maintenance

This is the Technical Manual section of this supplemental documentation for the Trainee Registration Core Dataset (formerly known as Clinical Trainee Core Dataset) software.

This is a Kernel Installation and Distribution System (KIDS) software release.



REF: Installation instructions for Trainee Registration Core Dataset can be found in the description for Kernel Patch XU*8.0*512, located on the Patch Module (i.e., Patch User Menu [A1AE USER]) on FORUM.

5.1 Software Dependencies

This software requires a standard VistA operating environment in order to function correctly. Check your VistA environment for software and versions installed.

The following minimum VistA software and patches are required:

Table 5-1. VistA patches required prior to installation of Trainee Registration Core Dataset

VistA Software and Version	Associated Patch Designation(s)	Brief Patch Description
HL7 1.6	HL*1.6*96	This patch addresses the following:
		This patch is the second phase of upgrading VistA HL7 to HL7 version 2.4. This upgrade is limited to Chapter 15, Personnel Management, and is in support of the Trainee Registration Core Dataset, Kernel Patch XU*8.0*251. A final phase to fully upgrade to version 2.4 will be released in the future.
Kernel 8.0	XU*8.0*134	Name Standardization defines a standard way for names to be entered into the NAME field (#.01) of the NEW PERSON file (#200). This will help in uniquely defining all providers in the file. Another benefit to this project will be to help uniquely identify computer users across various VA facilities.
Kernel 8.0	XU*8.0*214	This patch was created to support the BVA (Board of Veterans Appeals) project to allow CPRS to restrict the access of users in the NEW PERSON file (#200) to those patients associated with a specific OE/RR LIST.

VistA Software and Version	Associated Patch Designation(s)	Brief Patch Description
Kernel, Version 8.0	XU*8.0*230	This patch was created to allow CPRS to restrict access of users in the NEW PERSON file (#200) to specific CPRS GUI tabs. It involves adding a new multiple in the NEW PERSON file that points to a new file OR CPRS TABS (#101.13). For each entry in the multiple, an effective date and expiration can be assigned.
Kernel, Version 8.0	XU*8.0*247	This patch addresses the following:
		This patch removes the message "USER has no ACCESS CODE", which appeared in the "Edit an Existing User" Screen of the XUREACT USER form when a user selected the option: REACTIVATE A USER [XUSERREACT] with a person having an access code.
		 The field DOB (Date of Birth) is added on the "Edit an Existing User" Screen of the XUEXISTING USER form.
		This patch also deletes the "AF" cross-ref of New Person file #200 for accounts that may have installed XU*8.0*138 entered as error.

5.2 Background Jobs

Use TaskMan to schedule the XUOAA SEND HL7 MESSAGE option on a daily basis. It was originally exported with Kernel Patch XU*8.0*251. This background job initializes the generation and sending of the HL7 PMU. XUOAA SEND HL7 MESSAGE batch message, which builds a batch of messages for transmission to the OAA in support of the Trainee Registration Core Dataset functionality.

- NOTE: At certain times of the year your facility may process large numbers of trainees. During these times of peak trainee registration activity, you may wish to schedule the XUOAA SEND HL7 MESSAGE option to run more frequently to avoid generating large messages.
- NOTE: The SCHEDULING RECOMMENDED field (#209) is located in the OPTION file (#19). It must be set to "YES" in order to allow for one-time TaskMan scheduling outside the daily scheduled background job.

5.3 Routines

The following two Kernel routines are exported with this software:

Table 5-2. Routine list

Routine	Description			
XUSER2	This is an existing Kernel routine, which has been modified to add a new REQ entry point that can be called from the XUEXISTING USER, XUNEW USER, XUREACT USER, and XU-CLINICAL TRAINEE forms. This entry point makes Fields #12.1, 12.2, and 12.3 available or unavailable for editing, and makes those fields along with the other fields being tracked by VHA Office of Academic Affiliations required or not required, depending on whether the person is designated as a registered trainee.			
	The second line of this routine looks like:			
	<tab>;;8.0;KERNEL;**267,251,344**;Jul 10, 1995</tab>			
XUOAAHL7	This new Kernel routine iterates through the entries updated in the NEW PERSON file (#200) and sends those entries as batch HL7 messages to the Office of Academic Affiliations (OAA) National Registered Trainee Database.			
	The second line of this routine looks like:			
	<tab>;;8.0;KERNEL;**251,324,344**;Jul 10, 1995</tab>			
XUOAAUTL	This new Kernel routine screens the INSTITUTION (#4) file for affiliated VA facilities responsible for administering the registered trainee's training program. Only VAMCs and M&ROCs can be selected.			
	The second line of this routine looks like:			
	8.0;KERNEL;**344**;Jul 10, 1995			

5.4 File List

The following two files are exported with this software.

Table 5-3. NEW PERSON file (#200)—File and field definitions added

VistA File & Number	Global Location	Data w/ File?	Field Information
NEW PERSON (#200)	^VA(200,	No	This patch adds the following fields to the NEW PERSON file (#200):
			Field Name: LAST TRAINING MONTH & YEAR
			Field Number: 200,12.3
			Type: FREE TEXT
			Description: This is the MONTH and LAST year the trainee anticipates being in a training program at this VA medical facility.
			Field Name: VHA TRAINING FACILITY
			Field Number: 200, 12.4
			Type: POINTER TO INSTITUTION file (#4)
			Field Name: DATE HL7 TRAINEE RECORD BUILT
			Field Number: 200, 12.5
			Type: DATE
			Description: This is the date that the trainee information was built and sent to the OAA server.
			Field Name: CLINICAL CORE TRAINEE
			Field Number: 200, 12.6
			Type: SET
			"Y" FOR YES
			"N" FOR NO
			Description: This field designates whether or not the person is a registered trainee.
			Field Name: DATE NO LONGER TRAINEE
			Field Number: 200, 12.7
			Type: DATE

VistA File & Number	Global Location	Data w/ File?	Field Information	
			Description: This is the date when registered trainee is no longer a designated as such.	
			Field Name: START OF TRAINING	
			Field Number: 200, 12.8	
			Type: DATE	
PROGRAM OF STUDY File (#8932.2) (Exported with Kernel Patch XU*8.0*251.)	^USC(8932.2,	Yes	This file was originally exported with Kernel Patch XU*8.0*251. It was created to hold the list of the programs of study that can be associated with a registered trainee. This file is pointed to by the new PROGRAM OF STUDY field (#12.2) in the NEW PERSON file (#200).	
			Field Name: NAME	
			Field Number: 8932.2,.01	
			Type: FREE TEXT	
			Description: This is the name of the program of study.	
			The PROGRAM OF STUDY file is sent with the following data:	
			AUDIOLOGY	
			CHAPLAINCY	
			DENTISTRY	
			DIETETICS	
			HEALTH INFORMATION	
			 HEALTH SERVICES RESEARCH & DEVELOPMENT 	
			IMAGING (RADIOLOGIC/ULTRASOUND TECH, ETC.)	
			• LABORATORY	
			MEDICAL STUDENT	
			MEDICAL RESIDENT/FELLOW	
			MEDICAL POST-RESIDENCY PHYSICIAN IN VA SPECIAL FELLOWSHIP (AMBULATORY)	
			 CARE, NATIONAL QUALITY SCHOLARS, WOMEN'S HEALTH, ETC.) 	
			MEDICAL/SURGICAL SUPPORT (RESPIRATORY TECH, BIOMED TECH, ETC.)	

VistA File & Number	Global Location	Data w/ File?	Field Information	
			NURSE ANESTHETIST	
			NURSING	
			OPTOMETRY	
			• PHARMACY	
			PHYSICIAN ASSISTANT	
			• PODIATRY	
			• PSYCHOLOGY	
			REHABILITATION (OT, PT, KT, ETC.)	
			SPEECH - LANGUAGE PATHOLOGY	
			SOCIAL WORK	
			OTHER	

5.4.1 "ATR" New-Style Cross-reference

This software added a record-level new-style cross-reference to the NEW PERSON file (#200), which sets an index whenever fields for registered trainees being tracked by the Office of Academic Affiliations are changed.

Table 5-4. NEW PERSON file (#200)—New-Style Cross-reference added

VistA File & Number	Global Location	Data w/ File?	Description
NEW PERSON (#200)	^VA(200,	No This new-style cross-reference has as cross-reference values all the fields in the NEW PERSON file (#200) that are being tracked by the Office of Academic Affiliations for rollup into a centralized database. When any of the fields are edited, the cross-reference logic will set an index entry that corresponds to the edited record. The index entries will look like this: ^VA(200,"ATR",ien) = FM internal date "ATR" stands for "ATrainee."	
			None of the field-type cross-reference values are used as subscripts in the index, since we are only interested in recording the IENs of the records that are edited and the date the index entry is set. A separate queuable option will loop through the entries in this index, and send via HL7 messages the registered trainee data of each record to the Office of Academic Affiliations. The "ATR" cross-reference monitors the following

VistA File & Number	Global Location	Data w/ File?	Description		
			fields in the NEW PERSON file (#200):		
			• NAME (#.01)		
			STREET ADDRESS 1 (#.111)		
			STREET ADDRESS 2 (#.112)		
			STREET ADDRESS 3 (#.113)		
			• CITY (#.114)		
			• STATE (#.115)		
			• ZIP CODE (#.116)		
			• SSN (#9)		
			EMAIL ADDRESS (#.151)		
			CURRENT DEGREE LEVEL (#12.1)		
			PROGRAM OF STUDY (#12.2)		
			 LAST TRAINING MONTH & YEAR (#12.3) SERVICE/SECTION (#29) 		
			• TITLE (#8)		
			• DOB (#5)		
			 VHA TRAINING FACILITY (#12.4) 		
			CLINICAL CORE TRAINEE (#12.6)		
			DATE NO LONGER TRAINEE (#12.7)		
			START OF TRAINING (#12.8)		

5.5 ScreenMan Forms and Templates

Following is a list of the modified ScreenMan forms, input templates, and associated options exported with this software.

Table 5-5. Modified ScreenMan forms, input templates, and associated options

ScreenMan Form	Input Template	Option and Menu Text	VistA File & Number	Description
XUNEW USER	XUNEW USER	XUSERNEW Add a New User to the System	NEW PERSON (#200)	The form and input template used by the Add a New User to the System option are modified to include the fields in the NEW PERSON file (#200) identified by OAA as registered trainee data elements. Most of the fields that are added already exist in the NEW PERSON file (#200); Among the new fields added to the NEW PERSON file (#200) by this patch is Program of Study. If the person is assigned a Program of Study, it is assumed that the user is a Registered Trainee. If the person entering the data responds "YES" to the prompt "Is this person an active Trainee?" the VHA TRAINING FACILITY (#12.4) field becomes required.
XUEXISTING USER	XUEXISTI NG USER	XUSEREDIT Edit an Existing User	NEW PERSON (#200)	The same changes made to the form and input template used by the Add a New User to the System option are made to the form XUEXISTING USER and input template XUEXISTING USER used by the Edit an Existing User option. NOTE: Refer to the option "Add a New User to the System" documented in the first entry of this table, for a description of these changes.
XUREACT USER	XUREACT USER	XUSERREACT Reactivate a User	NEW PERSON (#200)	The same changes made to the form and input template used by the Add a New User to the System option are made to the XUREACT USER form and the XUREACT USER input template used by the Reactivate a User option. NOTE: Refer to the option "Add a New User to the System" documented in the first entry of this table, for a description of these changes.

Following is the modified ScreenMan form and associated updated option exported with this software:

Table 5-6. Modified ScreenMan form and associated option

ScreenMan Form	Option and Menu Text	VistA File & Number	Description
XU-CLINICAL TRAINEE	XU-CLINICAL TRAINEE EDIT Edit Trainee Registration Data	NEW PERSON (#200)	This option invokes a form that can be used to edit registered trainee data for users in the NEW PERSON file (#200) that haven't been terminated. This option attaches itself to the User Management [XUSER] menu, but each site can make it available to any user entering this data.

Following is the modified print template and associated option exported with this software:

Table 5-7. Modified print template and associated option

Print Template	Option and Menu Text	VistA File & Number	Description
XUSERINQ	XUSERINQ User Inquiry	NEW PERSON (#200)	This print template has been modified to display the following fields from the NEW PERSON file (#200) for registered trainees:
			12.1 CURRENT DEGREE LEVEL
			12.2 PROGRAM OF STUDY
			12.3 LAST TRAINING YEAR
			12.4 VHA TRAINING FACILITY
XU-CLINICAL TRAINEE INQUIRY	XU-CLINICAL TRAINEE INQUIRY Trainee Registration Inquiry	NEW PERSON (#200)	This print template is used by the Trainee Registration Inquiry option to display registered trainee data from the NEW PERSON file (#200).

Following are the new print and sort templates and associated new options are exported with this software:

Table 5-8. New print and sort templates and associated new options

Print & Sort Templates (same name for both)	Option and Menu Text	VistA File & Number	Description	
XU-CLINICAL ACTIVE TRAINEE	[XU-CLINICAL ACTIVE TRAINEE]	NEW PERSON	Produces a report listing all active registered trainees.	
	List of Active Registered Trainees	(#200)		
XU-CLINICAL TRAINEE LIST	[XU-CLINICAL TRAINEE LIST]	NEW PERSON	Produces a report, listing both active and inactive local registered	
	List of All Registered Trainees	(#200)	trainees.	
XU-CLINICAL INACTIVE TRAINEE	[XU-CLINICAL INACTIVE TRAINEE]	NEW PERSON	Produces a report listing all local inactive registered trainees.	
	List of Inactive (#200) Registered Trainees			
XU-CLINICAL TRAINEE DB COUNT	[XU-CLINICAL TRAINEE DB COUNT]	NEW PERSON	Produces a report listing the total number of local registered trainees	
	Total Count of Registered Trainees (#200)		entered into the sites' New Person file (#200).	
XU-CLINICAL TRAINEE TRANSA	TRAINEE TRANSA] PERSON		Produces a report listing all local registered trainee records sent to	
	Trainee Transmission Report by Date	(#200)	the Office of Academic Affiliations (OAA) within a defined date range.	
XU-CLINICAL TRAINEE TRANSC			Produces a report showing the total count(s) for local registered trainee	
			records sent to the OAA within a defined period.	
XU-CLINICAL TRAINEE TRANSB	[XU-CLINICAL TRAINEE TRANSB]	NEW PERSON	Produces a report of all local trainee records sent to the Office of	
	Trainee Transmission (#200) Report Selectable		Academic Affiliations (OAA) defined by the following two ranges:	
Items			• date	
			VHA training facility	

5.6 Options

5.6.1 New Kernel Options

The Trainee Registration Core Dataset software exports the following new Kernel options.



NOTE: There are no ScreenMan Forms associated with these options.

Table 5-8. New Kernel options

Tuble 2 of their Refiner options			
Option and Menu Text	Description		
[XU-CLINICAL TRAINEE REPORTS]	This menu holds the following menu options:		
Trainee Reports Menu	Local Trainee Registration Reports [XU- CLINICAL LOCAL REPORTS]		
	Trainee Transmission Reports to OAA [XU-CLINICAL TRANS REPORTS]		
[XU-CLINICAL LOCAL REPORTS]	This menu holds the following options:		
Local Trainee Registration Reports	 List of Active Registered Trainees [XU-CLINICAL ACTIVE TRAINEE] 		
	 List of All Registered Trainees [XU-CLINICAL TRAINEE LIST] 		
	List of Inactive Registered Trainees [XU-CLINICAL INACTIVE TRAINEE]		
	Total Count of Registered Trainees [XU-CLINICAL TRAINEE DB COUNT]		
[XU-CLINICAL ACTIVE TRAINEE]	Produces a report listing all active registered trainees.		
List of Active Registered Trainees			
[XU-CLINICAL TRAINEE LIST]	Produces a report, listing both active and inactive local		
List of All Registered Trainees	registered trainees.		
[XU-CLINICAL INACTIVE TRAINEE]	Produces a report listing all local inactive registered		
List of Inactive Registered Trainees	trainees.		
[XU-CLINICAL TRAINEE DB COUNT]	Produces a report listing the total number of local registered		
Total Count of Registered Trainees	trainees entered into the sites' New Person file (#200).		
[XU-CLINICAL TRANS REPORTS]	This menu holds the following options:		
Trainee Transmission Reports to OAA	 Trainee Transmission Report by Date [XU- CLINICAL TRAINEE TRANSA] 		
	 Trainee Transmission Report by Range [XU- CLINICAL TRAINEE TRANSC] 		
	Trainee Transmission Report Selectable Items [XU-CLINICAL TRAINEE TRANSB]		

Option and Menu Text	Description
[XU-CLINICAL TRAINEE TRANSA]	Produces a report listing all local registered trainee records
Trainee Transmission Report by Date	sent to the Office of Academic Affiliations (OAA) within a defined date range.
[XU-CLINICAL TRAINEE TRANSC]	Produces a report showing the total count(s) for local
Trainee Transmission Report by Range	registered trainee records sent to the OAA within a defined period.
[XU-CLINICAL TRAINEE TRANSB]	Produces a report of all local trainee records sent to the
Trainee Transmission Report Selectable Items	Office of Academic Affiliations (OAA) defined by the following two ranges:
	date
	VHA training facility

5.6.2 Modified Kernel Options

This software exports the following modified Kernel options and ScreenMan form:

Table 5-9. Modified Kernel option and ScreenMan form

Option and Menu Text	ScreenMan Form	Description
XU-CLINICAL TRAINEE MENU OAA Trainee Registration Menu	None	This menu holds the Edit Trainee Registration Data and Inquiry options:
		Edit Trainee Registration Data [XU-CLINICAL TRAINEE EDIT]
		 Trainee Registration Inquiry [XU-CLINICAL TRAINEE INQUIRY]
XU-CLINICAL TRAINEE EDIT Edit Trainee Registration Data	XU-CLINICAL TRAINEE	This option is used to edit the Trainee Registration Core Dataset. Users that have been terminated can't be edited.
XU-CLINICAL TRAINEE INQUIRY	None	Displays the various attributes of
Trainee Registration Inquiry		registered trainees.
XUOAA SEND HL7 MESSAGE Send HL7 PMU message	None	Initiates the generation of batch HL7 messages to the Office of Academic Affiliations (OAA) if entries (fields) for Registered Trainees have been updated in the NEW PERSON file (#200). This option should be scheduled using TaskMan on a daily basis.

Option and Menu Text	ScreenMan Form	Description
		NOTE: The SCHEDULING RECOMMENDED field (#209) is located in the OPTION file (#19). It must be set to "YES" in order to allow for one-time TaskMan scheduling outside the daily scheduled background job.

5.6.3 Existing Kernel Options Affected

The input and print templates and the ScreenMan forms called by the Kernel options listed below have been modified, and are exported with this software; however, the options themselves are *not* exported with the patch:

- Add a New User to the System
- Edit an Existing User
- Reactivate a User
- User Inquiry

Table 5-10 lists the Kernel options on the left with the modified ScreenMan forms and input templates on the right:

Table 5-10. Kernel options with associated ScreenMan forms and input templates

Option and Menu Text	ScreenMan Form	Input Template
XUSERNEW	XUNEW USER	XUNEW USER
Add a New User to the System		
XUSEREDIT	XUEXISTING USER	XUEXISTING USER
Edit an Existing User		
XUSERREACT	XUREACT USER	XUREACT USER
Reactivate a User		

Table 5-11 lists the Kernel option on the left with the modified print template on the right:

Table 5-11. Kernel option with associated print template

Option and Menu Text	Print Template
XUSERINQ	XUSERINQ
User Inquiry	

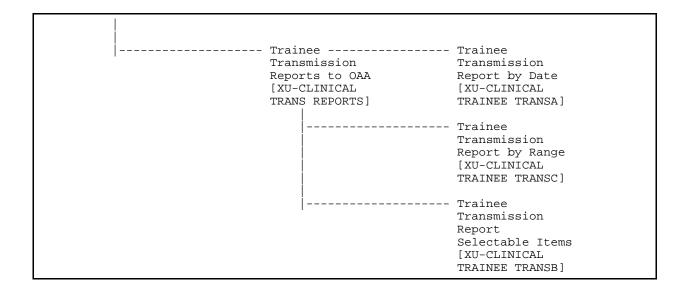


REF: For information on the modifications to the input and print templates and the ScreenMan forms called by these options, see the section "ScreenMan Forms and Templates" in this supplement.

5.6.4 Menu Diagram—OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU]

Figure 5-1. Menu Diagram—OAA Trainee Registration Menu [XU-CLINICAL TRAINEE MENU]

DAA Trainee Re 	gistration Menu (XU-CLI	NICAL TRAINEE MENU)	
			E	Edit Trainee Registration Data [XU-CLINICAL TRAINEE EDIT] **ENTRY ACTION: S DIC="^VA(200,",D IC(0)="AEMQ",DIC("S")= "I
				\$S(\$P(^(0),U,11) :\$P(^(0),U,11)'<\$\$FMAD D^XLFDT(DT,""-1096""), 1:1)"
				D ^DIC K DIC Q:Y=-1 S DA=+Y,DR="[XU-CL INICAL TRAINEE]",DIE="^ VA(200," D XUDIE^XUS5 K D0,DA,DIE,DR
			I	Trainee Registration Inquiry [XU-CLINICAL TRAINEE INQUIRY]
Menu [XU-CLIN		Regis Repor [XU-C	ts LINICAL	List of Active Registered Trainees [XU-CLINICAL ACTIVE TRAINEE]
				List of All Registered Trainees [XU-CLINICAL TRAINEE LIST]
				List of Inactive Registered Trainees [XU-CLINICAL INACTIVE TRAINEE]
				Total Count of Registered Trainees [XU-CLINICAL TRAINEE DB COUNT]



5.7 Archiving and Purging

There are no application-specific archiving or purging procedures or recommendations for the Trainee Registration Core Dataset software.

5.8 Callable Routines

There are no callable routines exported with this software.

5.9 External Interfaces (HL7 Components)

This software makes use of HL7 messaging to identify and share VistA information with the Trainee Registration Core Dataset project.



REF: For information on message construction for HL7 messaging for the Trainee Registration Core Dataset project, see Chapter 4, "HL7 Interface Specifications," in this supplement.

Listed as follows are the HL7 Application Parameters, HL Lower Level Protocol Parameters, and HL7 Protocols used for HL7 messaging.

5.10 Scheduled Option

NAME: XUOAA SEND HL7 MESSAGE MENU TEXT: Send HL7 PMU message

TYPE: run routine CREATOR: KRNUSER, TWO

PACKAGE: KERNEL

DESCRIPTION: This option is used to send an HL7 PMU message to the Office of

Academic Affiliations (OAA).

ROUTINE: OAA^XUOAAHL7

UPPERCASE MENU TEXT: SEND HL7 PMU MESSAGE

5.11 HL7 Application Parameters

NAME: XUOAA PMU ACTIVE/INACTIVE: ACTIVE

COUNTRY CODE: USA

NAME: XUOAA ACK ACTIVE/INACTIVE: ACTIVE

COUNTRY CODE: USA

5.12 HL7 Protocols

NAME: XUOAA PMU TYPE: event driver

CREATOR: KRNUSER, TWO

DESCRIPTION: This HL7 event protocol is one of two protocols used to generate Update Personnel Record (PMU) messages. This particular protocol represents the

sending system.

SENDING APPLICATION: XUOAA PMU TRANSACTION MESSAGE TYPE: PMU

EVENT TYPE: B02 VERSION ID: 2.4

RESPONSE PROCESSING ROUTINE: Q

SUBSCRIBERS: XUOAA MFK

NAME: XUOAA MFK TYPE: subscriber

CREATOR: KRNUSER, TWO

DESCRIPTION: This HL7 event protocol is one of two protocols used to generate Update Personnel Record (PMU) messages. This particular protocol represents the

receiving system.

RECEIVING APPLICATION: XUOAA MFK EVENT TYPE: B02

LOGICAL LINK: XUOAA RESPONSE MESSAGE TYPE: ACK

PROCESSING ROUTINE: Q

5.13 HL7 Logical Link

The XUOAA HL7 Logical Link shown in Figure 5-2 implements an HL7 Lower Level Protocol named (MailMan) as an email exchange.

Figure 5-2. XUOAA HL7 logical link

NODE: XUOAA LLP TYPE: MAILMAN
AUTOSTART: Enabled QUEUE SIZE: 10
MAIL GROUP: XUOAA CLIN TRAINEE



NOTE: Make sure the AUTOSTART field is set to "enabled" in the HL7 Logical Link XUOAA. Only HL7 logical links with AUTOSTART fields set to "enabled" are automatically started again after the system has been shutdown.

5.14 Mail Group: XUOAA CLIN TRAINEE

This MailMan mail group was originally exported with Kernel Patch XU*8.0*251.

Table 5-12. Mail group for sending HL7 PMU messages to support Registered Trainee Data Set functionality

Mail Group Name	Description
XUOAA CLIN TRAINEE	This is the mail group used by the HL7 MailMan logical link for sending out the HL7 PMU messages to support the Office of Academic Affiliations' Trainee Registration Core Dataset Set project. REMOTE MEMBER: AIMCDATA@VA.GOV

5.15 External Relations

5.15.1 Software Requirements

This software requires a standard VistA operating environment in order to function correctly. Check your VistA environment for software and versions installed.



REF: For more information on the minimum VistA software and patches that are required by this patch see the "Software Dependencies" portion of the "Technical Manual Information" section of this supplement.

5.16 Internal Relations

New menus and options, listed below, have been created and are exported with this software. Print and sort templates have also been created associated with these options:

- Trainee Reports Menu ... [XU-CLINICAL TRAINEE REPORTS]
 - Local Trainee Registration Reports ... [XU-CLINICAL LOCAL REPORTS]
 - o List of Active Registered Trainees [XU-CLINICAL ACTIVE TRAINEE]
 - o List of All Registered Trainees [XU-CLINICAL TRAINEE LIST]
 - o List of Inactive Registered Trainees [XU-CLINICAL INACTIVE TRAINEE]
 - o Total Count of Registered Trainees [XU-CLINICAL TRAINEE DB COUNT]
 - Trainee Transmission Reports to OAA ... [XU-CLINICAL TRANS REPORTS]
 - o Trainee Transmission Report by Date [XU-CLINICAL TRAINEE TRANSA]
 - o Trainee Transmission Report by Range [XU-CLINICAL TRAINEE TRANSC]
 - o Trainee Transmission Report Selectable Items [XU-CLINICAL TRAINEE TRANSB]

The print and sort templates have been created to support the Kernel options have been modified, and they are also exported with this release:

- Add a New User to the System [XUNEW USER]
- Edit an Existing User [XUSEREDIT]
- Reactivate a User [XUSERREACT]
- User Inquiry [XUSERINQ]

5.17 Namespace

The Trainee Registration Core Dataset patch uses the **XU** namespace, which is a Kernel namespace.

5.18 File Numbers

The file numbers and global locations used by this software are listed as follows:

Table 5-13. File list

File #	Global
200	^VA(200,
8932.2	^USC(8932.2, (Exported with Kernel Patch XU*8.0*251.)



NOTE: The CURRENT DEGREE LEVEL field (#12.1) points to the HL7 DEGREE file (#771.9) that complies with the HL7 Standard Table #360 for Degree. This HL7 file is used by this software and was exported with Patch HL*1.6*96.

5.19 Software-wide Variables

This software contains no software-wide variables.

5.20 Software Security

5.20.1 Mail Groups

This MailMan mail group was originally exported with Kernel Patch XU*8.0*251.

Table 5-14. Mail group XUOAA CLIN TRAINEE

Mail Group Name	Description
XUOAA CLIN TRAINEE	This is the mail group used by the HL7 MailMan logical link for sending out the HL7 PMU messages to support the Office of Academic Affiliations' Trainee Registration Core Dataset Set project. REMOTE MEMBER: AIMCDATA@VA.GOV

5.20.2 Remote Systems

This software uses HL7 to send batch messages to the Office of Academic Affiliations (OAA) designated as a Microsoft Exchange address.

5.20.3 Archiving and Purging

There are no software-specific archiving procedures or recommendations for this software.

5.20.4 Interfaces

There are no specialized (*not* VA produced) products (hardware and/or software) embedded within or required by this software.

5.20.5 Electronic Signatures

There are no electronic signatures used in this software.

5.20.6 Menus

There are no options of particular interest to Information Security Officers (ISOs) in this software.

5.20.7 Security Keys

The XUSHOWSSN security key allows users who hold it authority to view Registered Trainee Social Security Numbers (SSNs) in the option Edit Trainee Registration Data (XU-CLINICAL TRAINEE EDIT). If the SSN field is defined, users who are not assigned the XUSHOWSSN security key will only see the last four digits of the Social Security Number (SSN) displayed (e.g., SSN: *****1234). If no SSN has been entered, only the following label is displayed: "SSN:".

5.20.8 File Security

Table 5-15. File Security

File #	File Name	DD	RD	WR	DEL	LAYGO	AUDIT
200	NEW PERSON	٨	٨	۸		^	
8932.2	PROGRAM OF STUDY	@		۸	@	٨	@

- NOTE: The PROGRAM OF STUDY file (#8932.2) was exported with Kernel Patch XU*8.0*251.
- NOTE: The CURRENT DEGREE LEVEL field (#12.1) points to the HL7 DEGREE file (#771.9) that complies with the HL7 Standard Table #360 for Degree. This HL7 file is used by this software and was exported with Patch HL*1.6*96.

Implementation and Maintenance

Glossary

ACCESS CODE

A code that, along with the Verify code, allows the computer to identify you as a user authorized to gain access to the computer. Your code is greater than 6 and less than 20 characters long; can be numeric, alphabetic, or a combination of both; and is usually assigned by a site manager or application coordinator. It is used by the Kernel's Sign-on/Security system to identify the user (see Verify Code).

ALERTS

Brief online notices that are issued to users as they complete a cycle through the menu system. Alerts are designed to provide interactive notification of pending computing activities, such as the need to reorder supplies or review a patient's clinical test results. Along with the alert message is an indication that the View Alerts common option should be chosen to take further action.

ANSI MUMPS

The MUMPS programming language is a standard recognized by the American National Standard Institute (ANSI). MUMPS stands for Massachusetts Utility Multi-programming System and is abbreviated as M.

API

Application Program Interface. VistA Application Program Interfaces (APIs) are units of programming code provided by a custodial development domain to permit developers outside the custodial domain to accomplish a specified purpose. In some programming languages, APIs are called (sub)routines. APIs in VistA may be defined as extrinsic functions, extrinsic special variables, or label references to routines.

VistA APIs fall into the following three categories:

- The first category is "Supported API" These are callable routines, which are supported for general use by all VistA applications.
- The second category is "Controlled Subscription API." These are callable routines for which you must obtain an Integration Agreement (IA formerly referred to as a DBIA) to use.
- The third category is "Private API," where only a single application is granted permission to use an attribute/function of another VistA package.

These IAs are granted for special cases, transitional problems between versions, and release coordination.

APPLICATION PACKAGE

Software and documentation that support the automation of a service, such as Laboratory or Pharmacy within VA medical centers. The Kernel application package is like an operating system relative to other VistA applications.

CALLABLE ENTRY POINT An authorized programmer call that may be used in any VistA application package. The DBA maintains the list of DBIC-approved entry points.

CARET

A symbol expressed as up caret ("^"), left caret ("<"), or right caret (">"). In many M systems, a right caret is used as a system prompt and an up caret as an exiting tool from an option. Also known as the up-arrow symbol or shift–6 key.

CLIENT

A single term used interchangeably to refer to the user, the workstation, and the portion of the program that runs on the workstation. This term is typically used in an object-oriented environment, where a client is a member of a group that uses the services of an unrelated group. If the client is on a local area network (LAN), it can share resources with another computer (server).

With respect to the M-to-M Broker software, client refers to the "requesting server" that is able to connect to a "receiving server," where both servers reside in VistA on the same or on different VistA M systems.

COMPONENT

An object-oriented term used to describe the building blocks of GUI applications. A software object that contains data and code. A component may or may not be visible. These components interact with other components on a form to create the GUI user application interface.

CONTROLLED SUBSCRIPTION INTEGRATION AGREEMENT This applies where the IA describes attributes/functions that must be controlled in their use. The decision to restrict the IA is based on the maturity of the custodian package. Typically, these IAs are created by the requesting package based on their independent examination of the custodian package's features. For the IA to be approved, the custodian grants permission to other VistA packages to use the attributes/functions of the IA; permission is granted on a one-by-one basis where each is based on a solicitation by the requesting package. An example is the extension of permission to allow a package (e.g., Spinal Cord Dysfunction) to define and update a component that is supported within the Health Summary package file structures.

COTS

Commercial Off-the-Shelf. COTS refers to software packages that can be purchased by the public and used in support of VistA.

DATA DICTIONARY

The Data Dictionary is a global containing a description of the kind of data that is stored in the global corresponding to a particular file. VA FileMan uses the data internally for interpreting and processing files.

A Data Dictionary (DD) contains the definitions of a file's elements (fields or data attributes), relationships to other files, and structure or design. Users generally review the definitions of a file's elements or data attributes; programmers review the definitions of a file's internal structure.

DBIA

Database Integration Agreement, a formal understanding between two or more application packages that describes how data is shared or how packages interact. The DBA maintains a list of DBIAs between package developers, allowing the use of internal entry points or other package-specific features that are not available to the general programming public.

DDP

Distributed Data Processing.

DEFAULT

A response the computer considers the most probable answer to the prompt being given. In the roll-and-scroll mode of VistA, the default value is identified by double forward slash marks (//) immediately following it. In a GUI-based application the default may be a highlighted button or text. This allows you the option of accepting the default answer or entering your own answer. To accept the default you simply press the **Enter** key. To change the default answer, type in your response.

DICOM

Digital Imaging and Communication in Medicine

DIRECT MODE UTILITY A programmer call that is made when working in direct programmer mode. A direct mode utility is entered at the M prompt (e.g., >**D** ^**XUP**). Calls that are documented as direct mode utilities *cannot* be used in application package code.

DLL

Dynamic Link Library. A DLL allows executable routines to be stored separately as files with a DLL extension. These routines are only loaded when a program calls for them. DLLs provide several advantages:

- DLLs help save on computer memory, since memory is only consumed when a DLL is loaded. They also save disk space. With static libraries, your application absorbs all the library code into your application so the size of your application is greater. Other applications using the same library will also carry this code around. With the DLL, you don't carry the code itself, you have a pointer to the common library. All applications using it will then share one image.
- DLLs ease maintenance tasks. Because the DLL is a separate file, any
 modifications made to the DLL will not affect the operation of the
 calling program or any other DLL.
- DLLs help avoid redundant routines. They provide generic functions that can be utilized by a variety of programs.

ERROR TRAP

A mechanism to capture system errors and record facts about the computing context such as the local symbol table, last global reference, and routine in use. Operating systems provide tools such as the %ER utility. The Kernel provides a generic error trapping mechanism with use of the ^%ZTER global and ^XTER* routines. Errors can be trapped and, when possible, the user is returned to the menu system.

FORUM The central e-mail system within VistA. Developers use FORUM to

communicate at a national level about programming and other issues. FORUM is located at the Washington, DC CIO Field Office (162-2).

GUI Graphical User Interface. A type of display format that enables users to

choose commands, initiate programs, and other options by selecting pictorial

representations (icons) via a mouse or a keyboard.

HIS Hospital Information System

HOST The term Host is used interchangeably with the term Server.

ICON A picture or symbol that graphically represents an object or a concept.

INTEGRATION AGREEMENTS (IA)

(Formerly known as DATABASE INTEGRATION AGREEMENTS [DBIA])

Integration Agreements define an agreement between two or more VistA packages to allow access to one development domain by another. Any package developed for use in the VistA environment is required to adhere to this standard; as such it applies to vendor products developed within the boundaries of DBA assigned development domains (e.g., MUMPS AudioFax). An IA defines the attributes and functions that specify access. All IAs are recorded in the Integration Agreement database on FORUM. Content can be viewed using the DBA menu or the Technical Services' Web page.

IRM Information Resource Management. A service at VA medical centers responsible for computer management and system security.

KERNEL A set of VistA software routines that function as an intermediary between the host operating system and the VistA application packages (e.g., Laboratory, Pharmacy, IFCAP, etc.). Kernel provides a standard and consistent user and program interface between application packages and the underlying M implementation. (VA FileMan and MailMan are self-contained to the extent that they can standalone as verified packages.) Some of Kernel's components

are listed below along with their associated namespace assignments:

KIDS XPD
Menu Management XQ
Tools XT
Sign-on/Security XU
Device Handling ZIS

• Task Management ZTM

MENU MANAGER

The Kernel module that controls the presentation of user activities such as menu choices or options. Information about each user's menu choices is stored in the Compiled Menu System, the ^XUTL global, for easy and efficient access.

MULTIPLE A multiple-valued field; a subfile. In many respects, a multiple is structured

like a file.

MUMPS (ANSI STANDARD) A programming language recognized by the American National Standards Institute (ANSI). The acronym MUMPS stands for Massachusetts General Hospital Utility Multi-programming System and is abbreviated as M.

NAMESPACING A convention for naming VistA package elements. The Database

Administrator (DBA) assigns unique character strings for package developers to use in naming routines, options, and other package elements so that packages may coexist. The DBA also assigns a separate range of file numbers

to each package.

NODE In a tree structure, a point at which subordinate items of data originate. An M

array element is characterized by a name and a unique subscript. Thus the terms: node, array element, and subscripted variable are synonymous. In a global array, each node might have specific fields or "pieces" reserved for

data attributes such as name.

NT New Technology.

OAA Office of Academic Affiliations.

OIFO Office of Information Field Office.

OPTION As an item on a menu, an option provides an opportunity for users to select it,

thereby invoking the associated computing activity. In VistA, an entry in the OPTION file (#19). Options may also be scheduled to run in the background,

non-interactively, by TaskMan.

PRIVATE INTEGRATION AGREEMENT Where only a single application is granted permission to use an attribute/function of another VistA package. These IAs are granted for special cases, transitional problems between versions, and release coordination. A

Private IA is also created by the requesting package based on their

examination of the custodian package's features. An example would be where one package distributes a patch from another package to ensure smooth

installation.

PROMPT The computer interacts with the user by issuing questions called *prompts*, to

which the user returns a response.

REMOTE

PROCEDURE CALL

(RPC)

A remote procedure call (RPC) is essentially M code that may take optional parameters to do some work and then return either a single value or an array

back to the client application.

ROUTINE A program or a sequence of instructions called by a program that may have

some general or frequent use. M routines are groups of program lines that are

saved, loaded, and called as a single unit via a specific name.

SECURITY KEY

The purpose of Security Keys is to set a layer of protection on the range of computing capabilities available with a particular software package. The availability of options is based on the level of system access granted to each user.

SERVER

With respect to the M-to-M Broker software, server refers to the "receiving server" that sends the results in a message back to the "requesting server," where both servers reside in VistA on the same or on different VistA M systems.

The server is where VistA M-based data and Business Rules reside, making these resources available to the requesting server.

When the requesting server is receiving the results, it is referred to as the "server."

SIGN-ON/SECURITY

The Kernel module that regulates access to the menu system. It performs a number of checks to determine whether access can be permitted at a particular time. A log of signons is maintained.

SUBSCRIPT

A symbol that is associated with the name of a set to identify a particular subset or element. In M, a numeric or string value that: is enclosed in parentheses, is appended to the name of a local or global variable, and identifies a specific node within an array.

SUPPORTED REFERENCE INTEGRATION AGREEMENT This applies where any VistA application may use the attributes/functions defined by the IA (these are also called "**Public**"). An example is an IA that describes a standard API such as DIE or VADPT. The package that creates/maintains the Supported Reference must ensure it is recorded as a Supported Reference in the IA database. There is no need for other VistA packages to request an IA to use these references; they are open to all by default.

TCP/IP

Transmission Control Protocol/Internet Protocol.

UCI

User Class Identification, a computing area. The MGR UCI is typically the Manager's account, while VAH or ROU may be Production accounts.

USER ACCESS

This term is used to refer to a limited level of access to a computer system that is sufficient for using/operating a package, but does not allow programming, modification to data dictionaries, or other operations that require programmer access. Any of VistA's options can be locked with a security key (e.g., XUPROGMODE, which means that invoking that option requires programmer access).

The user's access level determines the degree of computer use and the types of computer programs available. The Systems Manager assigns the user an access level.

USER INTERFACE The way the package is presented to the user, such as Graphical User

Interfaces that display option prompts, help messages, and menu choices. A standard user interface can be achieved by using Borland's Delphi Graphical User Interface to display the various menu option choices, commands, etc.

VA Veterans Administration.

VERIFY CODE The Kernel's Sign-on/Security system uses the Verify code to validate the

user's identity. This is an additional security precaution used in conjunction with the Access code. Verify codes shall be at least eight characters in length and contain three of the following four kinds of characters: letters (lower- and uppercase), numbers, and, characters that are neither letters nor numbers (e.g., "#", "@" or "\$"). If entered incorrectly, the system does not allow the user to access the computer. To protect the user, both codes are invisible on the

terminal screen.

VHA Veterans **H**ealth **A**dministration.

VISN Veterans Integrated Service Network.

VistA Veterans Health Information Systems and Technology Architecture. VistA

includes the VA's application software (i.e., Microsoft Windows-based and locally developed applications, roll-and-scroll, and interfaces such as software links to commercial packages). In addition, it encompasses the VA's uses of new automated technology including the clinical workstations. VistA encompasses the rich automated environment already present at local VA

medical facilities.

WINDOW An object on the screen (dialog) that presents information such as a document

or message.

XML EXtensible Markup Language. The universal format for structured documents

and data on the Web.

REF: For a comprehensive list of commonly used infrastructure- and security-related terms and definitions, please visit the Glossary Intranet Website:

http://vista.med.va.gov/iss/glossary.asp

For a comprehensive list of acronyms, please visit the Acronyms Intranet Website:

http://vista/med/va/gov/iss/acronyms/index.asp

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