VistA<sup>®</sup>

# MOBILE ELECTRONIC DOCUMENTATION (MED)

# **TECHNICAL MANUAL**

# Documentation Patch: TIU\*1.0\*311 Server Patch: TIU\*1.0\*257 Client Software: Version 2.3.311.6

# June 2017

Department of Veterans Affairs (VA) Office of Information & Technology (OIT) Product Development (PD) This page intentionally left blank for double-sided printing.

# **Revision History**

Date	Revision	Description	Author
06/02/2017	2.8	Update for Patch TIU*1*311	<b>REDACTED</b>
		Two-Factor Authentication (2FA)	
		Updated all MED document file references to the following:	
		<ul> <li>TIU_1_311_MED_IG.doc/pdf</li> </ul>	
		<ul> <li>TIU_MED_TM.doc/pdf</li> </ul>	
		<ul> <li>TIU_MED_UM.doc/pdf</li> </ul>	
09/21/2011	2.7	Tech review and edit updates based on review/feedback from REDACTED review:	REDACTED
		<ul> <li>Updated all MED document file references to the following:</li> </ul>	
		<ul> <li>TIU_1_262_MED_IG.doc/pdf</li> </ul>	
		<ul> <li>TIU_1_262_MED_TM.doc/pdf</li> </ul>	
		<ul> <li>TIU_1_262_MED_UM.doc/pdf</li> </ul>	
		<ul> <li>Updated all footers to reference MED GUI Software Version 2.3 and documentation Patch TIU*1.0*262.</li> </ul>	
09/15/2011	2.6	Tech review and edit updates based on review/feedback from REDACTED review:	REDACTED
		<ul> <li>Updated first bullet in Step 3 in Section 2.1.3. Changed "deploring" to "deploying."</li> </ul>	
		<ul> <li>Updated note in Step 3d in Section 2.1.3. Changed "need" to "needed."</li> </ul>	
		<ul> <li>Added the following sentence to blank pages added so all chapter/document ends on an even page for double-sided printing:</li> </ul>	
		"This page intentionally left blank for double-sided printing."	
		• Updated first bullet in Section 2.5.1.	
09/05/2011	2.5	Tech review and edit updates based on review/feedback from MED Core team:	REDACTED
		<ul> <li>Updated the following sections to indicate users <i>must</i> be given Full Control access permission to the MED directory (i.e., Read, Write, Modify, and Execute), as per REDACTED</li> </ul>	

Date	Revision	Description	Author
		<ul> <li>Section 2.1.1, "Create a Network Share Download Directory."</li> </ul>	
		<ul> <li>Section 2.1.3, "Configure Client Workstation."</li> </ul>	
		<ul> <li>"Write Access Error" error description and resolution to state.</li> </ul>	
		• Added a Note informing users to enter a Remedy ticket if the resolutions listed in the errors described in Chapter 4, "Troubleshooting—Error Messages," do not resolve the issue.	
		• Added the "CPRS CHART – Library Not Registered Error" error message to Chapter 4, "Troubleshooting—Error Messages," as per feedback from R Hines.	
		<ul> <li>Updated index entries for error messages in Chapter 4, "Troubleshooting—Error Messages."</li> </ul>	
08/11/2011	2.4	Tech review and edit updates based on review/feedback from MED Core team:	REDACTED
		Removed patch compliance dates from the "How to Use this Manual", as per REDACTED	
08/10/2011	2.3	Tech review and edit updates based on review/feedback from MED Core team:	REDACTED
		Added Note to the Description field for the TIU MED MANUAL PATIENT security key in Table 1 and Table 7, as per REDACTED review.	
		<ul> <li>Renamed section to the "MED Software Summary Setup Procedures" section as per <u>REDACTED</u> review.</li> </ul>	
		<ul> <li>Updated responsible parties for obtaining and exporting templates in the "Create a Network Share Download Directory" section, as per <u>REDACTED</u> review.</li> </ul>	
		• Added a Note regarding compacting the MED database in Step 30 in the "Configure Client Workstation" section, as per <b>REDACTED</b> reviews.	
		• Added a Note regarding Hyperlinks in TIU templates in the "Guidelines for Creating Section 508 Compliant TIU Templates" section, as per	

Date	Revision	Description	Author
		REDACTED review.	
		<ul> <li>Added a Note and updated Step 3 regarding deleting templates on Network Share Templates directory rather than the laptop/client workstations to the "Deleting Templates" section as per REDACTED review.</li> </ul>	
		<ul> <li>Added Cautionary Note to the procedures in the "Delete Manually Entered Patients (Duplicates)" section, as per <u>REDACTED</u> review.</li> </ul>	
		<ul> <li>Updated patient names in Table 2 through Table 5, as per REDACTED review.</li> </ul>	
		• Added a Note and Reference to Step 2 in the "Create a Network Share Download Directory" section.	
		• Updated the image and directory path for the MED database reference in the "MED Database Open Error" section.	
		• Added compact database messages to the new "MED Database Compact Messages" section, as per Seth Thompson email.	
		<ul> <li>Added definitions for Retrieving Patient Records vs. Selecting Patient Records in MED in the "<u>Glossary</u>" sections, as per <u>REDACTED</u> review.</li> </ul>	
		<ul> <li>Removed author references, other than Project Manager and Tech Writer, from "Revision History" section, as per Product Support review.</li> </ul>	
		<ul> <li>Removed "HBPC" and "Product Support" from "<u>Intended Audience</u>" section, as per Product Support review.</li> </ul>	
		Added reference to Microsoft Access     database in the " <u>Assumptions about     the Reader</u> " section, as per Product     Support review.	
		<ul> <li>Added phrase "to the network share directory" to Step 3c in the "Create a Network Share Download Directory" section, as per Product Support review.</li> </ul>	
		Also, updated last Note in this section	

Date	Revision	Description	Author
		to specify those users maintaining the network share Templates folder, as per Product Support review.	
		Corrected sample IP and port information in the "Configure Client Workstation" section, as per Product Support review.	
		Corrected option name and removed security key from the "Health Summary Parameter Delete Option [TIU MED DEL PARM]" section, as per Product Support review.	
		• Updated references to the installer in the "Verify and Prepare MED Templates for Use with CPRS" section, as per Product Support review.	
		Updated procedures in the "Delete Manually Entered Patients (Duplicates)" section, as per Product Support review.	
		Removed lock from the TIU MED DEL     PARM option in Table 6, as per     Product Support review.	
		Corrected option name in the "RPC Broker Error" section, as per Product Support review.	
		Added the GUI version 2.3 to the Resolution in the "Invalid Date Error" section, as per Product Support review.	
		• Updated the Note contact information in Step 3d in the "Configure Client Workstation" section, as per Product Support review.	
		Updated the Note in Step 2 in the     "Configure Client Workstation" section,     as per Product Support review.	
07/27/2011	2.2	Tech review and edit updates based on review/feedback from Product Support team:	REDACTED
		Added all Mobile Electronic Device     (MED) VistA patch references and     Graphical User Interface (GUI) client     software version to the Title page.	
		Added the " <u>Orientation</u> " section in accordance with national documentation standards. Moved	

Date	Revision	Description	Author
		topics from the "Introduction" section into this new section.	
		<ul> <li>Renamed the "Reference Materials" section. Also added patch descriptive text.</li> </ul>	
		<ul> <li>Moved and renamed the "Create a Network Share Download Directory" section prior to MED client workstation configuration steps.</li> </ul>	
		<ul> <li>Added the "Deleting Templates" section; extracted from the User Manual.</li> </ul>	
		• Added the "Delete Manually Entered Patients (Duplicates)" section under the "Progress Notes Import Criteria" section to include instructions on how to manually delete patients from the MED database.	
		<ul> <li>Updated the "Configure Client Workstation" section:</li> </ul>	
		<ul> <li>Deleted information on setting the MED.exe program file properties in Step 1 to just reference the desktop shortcut properties.</li> </ul>	
		<ul> <li>Added procedures to set permission for the Mobile Electronic Documentation folder in Step 2.</li> </ul>	
		<ul> <li>Added Step 3 procedures to configure the MED default "Template Update Path".</li> </ul>	
		<ul> <li>Added the "Write Access Error" error message section in the "Troubleshooting—Error Messages" section.</li> </ul>	
		<ul> <li>Updated the summary steps in the "Create a Network Share Download Directory" section.</li> </ul>	
07/12/2011	2.1	Tech review and updates:	Project Manager—Tim Landy
		• Deleted patch references to and figure for "Error Message: Packing a reminder dialog" in the "Introduction" section, as per Jeanie Scott review.	Tech Writer—Thom Blom
		<ul> <li>Updated the "Implementation and Maintenance" section. Consolidated configuration information, as per</li> </ul>	

Date	Revision	Description	Author
		Jeanie Scott review.	
		Updated the "Manage Mobile Electronic Documentation Option [TIU MED MANAGEMENT]" section, as per Jeanie Scott review.	
		Updated the "Health Summary Parameter Delete Option [TIU MED DEL PARM]" section, as per Jeanie Scott review.	
		• Updated the "Date Sensitivity" section in the "Progress Notes Import Criteria" topic, as per Jeanie Scott review.	
		Updated Table 6. MED exported options, as per Jeanie Scott review.	
06/23/2011	2.0	Tech review and updates:	REDACTED
		Renamed document to remove patch reference ID.	
		Reformatted document to follow current national documentation standards and style guides.	
		Added alternate text to all images for Section 508 compliance.	
		Updated the "Introduction" section to be consistent across the MED documentation set.	
		Updated Index entries.	
		• Removed the "Install MED" section from the "Implementation and Maintenance" section, since the procedures listed are duplicated in, the <i>MED Installation Guide</i> .	
		• Remedy Ticket #485510: Added the "Date Sensitivity" section in the "Progress Notes Import Criteria" section.	
		• Remedy Tickets #487029 and 491510: Kept prefix as " <b>ScratchPad_</b> " in the <i>MED Technical Manual</i> . Updated <i>MED</i> <i>Installation Guide</i> to match.	
		• Made grammar, punctuation, and spelling updates as needed.	

Date	Revision	Description	Author
01/21/2011	1.1	Tech review and updates:	REDACTED
		<ul> <li>Page 12: Updated screen capture with new version numbers.</li> </ul>	
		<ul> <li>Page 15: Added new RPC. Added a Note about option TIU MED GUI RPC V2 replacing TIU MED GUI RPC.</li> </ul>	
		• Page 17: Added error messages.	
06/03/2010	1.0	Initial document.	MED Development Team

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### Orientation

### How to Use this Manual

The Mobile Electronic Documentation (MED) application consists of both a Veterans Health Information Systems and Technology Architecture (VistA) M Server component and a Microsoft® Windows laptop/client workstation Graphical User Interface (GUI) component:

- Original VistA M Server Patch: TIU\*1.0\*244 (released date: 06/03/2010).
- Updated VistA M Server Patch: TIU\*1.0\*257 (released date: 01/21/2011).
- Documentation-only VistA M Server Patch TIU\*1.0\*311.
- Current Laptop/Client Workstation software: MED.exe Version 2.3.311.6.

This manual provides technical information regarding the implementation and maintenance of the MED VistA M Server and Microsoft® Windows laptop/client workstation components.

MED works in tandem with CPRS; however, this manual does *not* attempt to fully document how to create templates or describe other functions of CPRS.



**REF:** For installation instructions; lists of routines, files, and options; additional technical information; and user information on CPRS, see the CPRS documentation on the VA Document Library (VDL) at the following link:

http://www.va.gov/vdl/application.asp?appid=61

### Intended Audience

The intended audience of this manual is all key stakeholders. The stakeholders include the following:

- Information Resource Management (IRM)
- Clinical Application Coordinators (CAC)

### Legal Requirements

There are no special legal requirements involved in the use of MED software.

### Disclaimers

This manual provides an overall explanation of how to configure the MED software; 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 Web sites on the Internet and VA Intranet for a general orientation to VistA. For example, visit the Office of Information & Technology (OIT) VistA Development VA Intranet Website: **REDACTED** 



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 this VA Intranet Service.

### **Documentation Conventions**

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

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

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

#### Table ii. Documentation symbol/term descriptions

- Descriptive text is presented in a proportional font (as represented by this font).
- 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 and "N" represents the first name as a number spelled out and incremented with each new entry. For example, an MED test patient and user names would be documented as follows: MEDPATIENT,ONE; MEDPATIENT,TWO; MEDPATIENT,THREE; MEDUSER,ONE, MEDUSER,TWO, MEDUSER,THREE, etc.

- Sample HL7 messages, "snapshots" of computer online displays (i.e., character-based screen captures/dialogues) 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., dialogues or forms).
  - User's responses to online prompts will be boldface.
  - The "**<Enter>**" found within these snapshots indicate that the user should press the **Enter** key on their keyboard. Other special keys are represented within angle brackets (**<>**). For example, pressing the **PF1** key can be represented as pressing **<PF1>**.
  - Author's comments, if any, are displayed in italics or as "callout" boxes.



**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 TIU MED MGT key).

#### **Documentation** Navigation

This document uses Microsoft® Word's built-in navigation for internal hyperlinks. To add **Back** and **Forward** navigation buttons to your toolbar, do the following:

- 1. Right-click anywhere on the customizable Toolbar in Word 2007 (not the Ribbon section).
- 2. Select **Customize Quick Access Toolbar** from the secondary menu.
- 3. Press the dropdown arrow in the "Choose commands from:" box.
- 4. Select All Commands from the displayed list.
- 5. Scroll through the command list in the left column until you see the **Back** command (green circle with arrow pointing left).
- 6. Click/Highlight the **Back** command and press the **Add** button to add it to your customized toolbar.
- 7. Scroll through the command list in the left column until you see the Forward command (green circle with arrow pointing right).
- 8. Click/Highlight the Forward command and press the **Add** button to add it to your customized toolbar.
- 9. Press OK.

You can now use these **Back** and **Forward** command buttons in your Toolbar to navigate back and forth in your Word document when clicking on hyperlinks within the document.

### How to Obtain Technical Information Online

Exported file, routine, and global documentation can be generated through the use of Kernel, MailMan, and VA FileMan utilities.



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

**REF:** See the *Mobile Electronic Documentation (MED) Technical Manual* for further information.

#### **Online Help**

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.

The MED laptop/client workstation software includes an MED GUI online help file (i.e., MED.chm). Instructions, procedures, and other information are available from the. To access the online help do either of the following:

- Inside MED, click on the **Help** | **Contents** menu options from the MED GUI toolbar or press the **F1** key while you have any MED dialogue screen open.
- Outside MED, double-click on the **MED.chm** file.

#### **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
- Microsoft® Windows, including Microsoft Access database.
- M programming language

### **Reference Materials**

Readers who wish to learn more about MED should consult the following:

- *Mobile Electronic Documentation (MED) Installation Guide (TIU\*1.0\*311)*—Contains instructions for installing, configuring, and deploying MED on the VistA M Server and Laptop/Client Workstation.
- *Mobile Electronic Documentation (MED) User Manual*—Contains instructions on how to use the MED software.
- FORUM Patches: TIU\*1.0\*244, TIU\*1.0\*257, and TIU\*1.0\*262.

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://www4.va.gov/vdl/

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

Preferred Method
 REDACTED

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

**REDACTED** 

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### 1 Introduction

Mobile Electronic Documentation (MED) 2.3.311.6 is a Veterans Health Information Systems and Technology Architecture (VistA) software application. It enables Department of Veterans Affairs (VA) staff to access a patient's previously downloaded electronic medical record information when not connected to the VA network. MED is designed to work in tandem with the Computerized Patient Record System (CPRS) as temporary storage of patient notes. This includes the ability to enter notes using CPRS exported Templates (.txml). MED promotes user satisfaction and efficiency in the login and documentation process by allowing access to CPRS at the point of care (POC) and avoid the duplicate process of charting handwritten notes at the end of the day.

When providing health care services, Home and Community Care staff (e.g., physicians, nurses, dieticians, social workers, and health care providers) must travel to a variety of geographic locations in which Internet access and coverage is often unreliable or sometimes unavailable. MED does the following:

- Allows access to secure patient information without the need for wireless Internet connectivity.
- Promotes the security of patient information by removing the need to print and carry excessive amounts of patient-sensitive data out of the clinical setting and into the community.
- Allows users to view and download to their secured laptops/client workstations Health Summary and MED Created Notes for patients in Home Based Primary Care (HBPC) Clinics.
- Provides the ability to enter and review patient documentation (e.g., Progress Notes) remotely at the point of care (POC), such as patient's home, when they are not connected to the VA network.
- Enables the transfer of patient data documented in MED during a home visit to be imported into CPRS as a patient note, which becomes part of the patient record.
- Minimizes errors from home visits by removing the need for paper records or the need to manually transfer (e.g., copy and paste) patient data from a mobile device.



CAUTION: This version of MED does *not* encrypt data. All laptops/client workstations (PC) are required to have full disk encryption and VA security policies. PCs should have normal health checks including security updates and antivirus.

Please be aware that if a PC is assigned to multiple users, MED notes and health summaries include patient information that is viewable to all users of the PC. Therefore, all users of the PC *must* have the same level of security access to view this information.

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### 2 Implementation and Maintenance

### 2.1 MED Software Summary Setup Procedures

#### 2.1.1 Create a Network Share Download Directory

To create a network share directory to store distribution files and include templates with MED, perform the following procedures:

- 1. The Information Resource Management (IRM) network staff needs to create a network share download directory (e.g., \\VHA...\TIU MED).
- 2. The IRM network staff downloads and unzips the MED distribution file into network share download directory to obtain the MOBILEELECTRONICDOCUMENTATION\_TIU-1-311.MSI installer.



**NOTE:** The MOBILEELECTRONICDOCUMENTATION\_TIU-1-311.MSI installer runs standalone and installs the MED software on a laptop/client workstation.

**REF:** For MED installation instructions on the laptop/client workstation, see the *Mobile Electronic Documentation (MED) Installation Guide (TIU\*1.0\*311).* 

- 3. The Clinical Applications Coordinator (CAC) obtains the TIU templates (**.txml** files) that will be used in MED from the POC for MED. The CAC includes those TIU templates that are found on the Computerized Patient Record System (CPRS) Notes Tab to be associated with the MED installation:
  - a. The IRM network staff creates a sub-folder called "**Templates**" under the network share download directory in Step 1:

\\VHA...\TIU MED\Templates

- The person setting the template path *must* be assigned the Mobile Electronic Documentation secondary option [TIU MED GUI RPC V2].
- All Clinical Application Coordinators (CAC) need **Full Control** access permission (i.e., Read, Write, Modify, and Execute) to this folder.
- All non-CAC users need Read-only access permission to this folder.

b. (Optional) Create sub-folders for different provider types (e.g., Dietitian, Nurse, and Pharmacist) to store discipline-specific templates. You will need to know the names of individual personnel and their discipline as well as the laptops/client workstations they will be using.

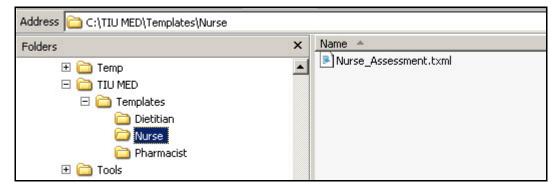


Figure 1. Sample MED templates directory with sample provider sub-directories

c. The CAC (with **Full Control** access permission to the network share directory) exports any TIU templates, with the exception of Reminder Dialogs, through the CPRS Template Editor into the **Templates** folder on the network share directory.



**NOTE:** Reminder Dialogs *cannot* be used within the MED application. In addition, you can use patient data objects in any template, but the data will *not* populate until the template is imported into CPRS.

Add a "ScratchPad\_" prefix (be sure to include the underscore) to the name of any TIU templates that are to be used as Scratch Pad templates in MED (e.g., ScratchPad\_NAMEOFTEMPLATE.txml).



**NOTE:** Users who will import, delete, and maintain templates on the network share server *must* have **Full Control** access permission to the Templates folder.

#### 2.1.2 Configure VistA M Server

To configure the MED VistA M Server software on the VistA M Server, perform the following procedures:

1. Verify the **Mobile Electronic Documentation** folder and the Import **M.E.D. Notes** template were installed in the TIU TEMPLATE file (#8927) as part of Computerized Patient Record System (CPRS) (see Section 2.4).



CAUTION: If the Mobile Electronic Documentation folder and the Import M.E.D. Notes template are *not* installed in CPRS, <u>STOP</u>! Have your Clinical Application Coordinator (CAC) enter a National Remedy ticket to Text Integrated Utilities (TIU) for assistance!

2. Assign the TIU MED MGT security key to IRM/CAC staff, if not already assigned.



**REF:** For more information on this security key, see Table 7.

- 3. Assign the following secondary options to the IRM/CAC staff so they can set, modify, and delete MED parameters:
  - MANAGE MOBILE ELECTRONIC DOCUMENTATION option [TIU MED MANAGEMENT].
  - HEALTH SUMMARY PARAMETER DELETE option [TIU MED DEL PARM].



**REF:** For more information on these options, see Table 6.

- 4. Assign the following security keys to those individuals who will be tasked with validating patient identification for manually entered MED patients (e.g., CAC and Home Based Primary Care [HBPC] super users):
  - TIU MED MANUAL PATIENT.
  - TIU MED MANUAL OVERRIDE.



CAUTION: Only a select few users should be given the TIU MED MANUAL OVERRIDE security key. Most users should *not* be given this key.

It is suggested that there be a document review and patient review before importing notes into patient records that have typographical or missing data that stops a user from importing the information as outlined with the TIU MED MANUAL PATIENT security key.



**REF:** For more information on these security key, see Table 7.

5. Assign the Mobile Electronic Documentation secondary option [TIU MED GUI RPC V2] to HBPC users.



**REF:** For more information on this option, see Table 6.

- 6. Set/Delete the Health Summary Type for MED parameter [TIU MED HSTYPE] to generate Health Summaries in MED
  - Use the MANAGE MOBILE ELECTRONIC DOCUMENTATION option [TIU MED MANAGEMENT] to set the TIU MED HSTYPE parameter (see Section 2.2).
  - Use the HEALTH SUMMARY PARAMETER DELETE option [TIU MED DEL PARM] to delete the TIU MED HSTYPE parameter (see Section 2.3).



**REF:** For detailed installation instructions, see the *Mobile Electronic Documentation (MED) Installation Guide* (i.e., TIU\_1\_311\_MED\_IG.pdf).

#### 2.1.3 Configure Client Workstation

To configure the MED software on the Microsoft® laptop/client workstation (PC), perform the following procedures:

- 1. Update the "Launch MED" desktop shortcut with your site IP and RPC Broker port as follows:
  - a. Right-click on the MED launch icon on the desktop.
  - b. Select the **Properties** menu.
  - c. Select the **Shortcut** tab.
  - d. In the target field append the IP address or Domain Name Service (DNS) and port information after the MED.exe location. For example:

"C:\Program Files\Mobile Electronic Documentation\MED.exe" REDACTED

Set Permission for the Mobile Electronic Documentation folder.

On the HBPC laptop/client workstation, do the following:

a. Navigate to the following directory:

C:\Program Files\Mobile Electronic Documentation

- b. Right click on the Mobile Electronic Documentation folder.
- c. Select Properties.
- d. Select the group or user name in the upper portion of the Properties dialogue.
- e. Check the Write checkbox under the Allow column in the lower portion of the Properties dialogue.
- f. Press OK.



**NOTE:** In order for users to write the appropriate information while using the MED software, they *must* have **Full Control** access permission to this folder; otherwise, they will get access violation errors when launching MED.

- 2. Configure the following MED settings on the client workstation (procedures follow):
  - MED default "Template Update Path"—Indicate here MED should search for updated templates. Before deploying the HBPC laptop/client workstation to the user, the IRM or CAC *must* retrieve and select a patient in MED on each laptop/client workstation and add the network **Templates** path so the templates will be available for use in MED.
  - Health Summaries—Set Health Summaries to automatically download for patients (see also Step 6 in Section 2.1.2).
  - Database Settings—Indicate when MED should suggest compacting its database.
  - a. Launch MED. Select a patient to make the MED menu options visible on the Patient Selection form.
  - b. Click Retrieve Patient(s).
  - c. Click Select a Patient.
  - d. Sign onto VistA: Enter your signon credentials.



**NOTE:** If you are not prompted for signon credentials, contact IRM to verify that the correct IP address and port number have been assigned to the MED shortcut executable target line. **REDACTED**.

- e. Select a patient to retrieve form the list.
- f. Click Retrieve Patient.
- g. Once the patient is retrieved, click Close.
- h. The MED Patient Select window is displayed; select the patient name again and click OK.
- i. Select the **Tools** menu and then select the **Settings** option, as shown below:

File	Edit	View	Action	Tools	Help	
		Se	Settings			
		÷		Co	mpact Database	

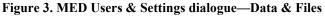
Figure 2. MED—Settings menu option

- j. In the Users & Settings dialogue, if not already selected, click on the Data & Files tab.
- k. Enter the following directory path (created in Step 3a in Section 2.1.1) in the "Template Update Path" field (Figure 3):

\\VHA...\TIU MED\Templates

1. Verify that the **Retrieve Health Summaries** checkbox is checked, as shown below:

b	
	🗏 Users & Settings 🛛 🔀
	Data & Files Database
	Template Update Path: \\\\haappserver\TIU MED\Templates
	Retrieve Health Summaries: 🔽

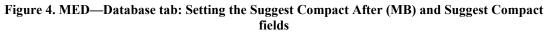




**NOTE:** Unchecking the **Retrieve Health Summaries** checkbox makes updating the patient list faster; however, patient health summary information (e.g., Active Medications, Labs, etc.) will *not* be available to staff when using MED.

These templates will become available for the user of that laptop/client workstation after MED is closed and re-opened. MED checks the "Template Update Path" folder on startup and updates templates if applicable. If the template updates folder is inaccessible either due to connectivity (i.e., not connected to the VA Network to access the folder) or security (i.e., do not have Read permissions to the template updates folder), MED proceeds with the current templates in its local directory and template updates will be made at a later date when connectivity and security issues are resolved.

m. In the Users & Settings dialogue, select the **Database** tab, as shown below:



💭 Users & Settings	X
Data & Files Database	,
Suggest Compact After (MB): 1024 Suggest Compact: 🔽	
	<u>C</u> lose

n. In the **Suggest Compact** check box, check or uncheck whether MED should suggest compacting the database to the user. If this is checked, then suggesting a compact occurs when MED is started, and the database size exceeds what is entered in the Suggest Compact After (MB) field.

o. In the **Suggest Compact After (MB)** text box, enter the size in Megabytes that MED should suggest a database compact. (This option only applies if Suggest Compact is checked.)

When the MED database meets or exceeds this size, MED automatically prompts the user to compact the database. Currently, it is suggested the user answer **No** to compact the database when prompted.



**NOTE:** Compacting the MED Microsoft® Access database allows for maximum efficiency and increased speeds. However, based on the current default setting of 1024 MB and the fact that notes are purged after 7 days, it is unlikely that users will often be prompted to compact the MED database.

Future versions of the software will be increasing this default value and correct some underlying code issues.

**REF:** For sample warning and information message related to compacting the MED database, see Section 4.8.

- p. Click **Close** when done to save these changes.
- 3. Verify and prepare MED templates for use with CPRS (see Section 2.4).



**REF:** For detailed installation instructions, see the *Mobile Electronic Documentation (MED) Installation Guide* (i.e., TIU\_1\_311\_MED\_IG.pdf).

### 2.2 Manage Mobile Electronic Documentation Option [TIU MED MANAGEMENT]

The MANAGE MOBILE ELECTRONIC DOCUMENTATION option [TIU MED MANAGEMENT] allows IRM/CAC staff to set or modify the Health Summary Type for MED parameter [TIU MED HSTYPE].

The TIU MED HSTYPE is used to generate Health Summaries in MED. The site needs to identify an existing Health Summary or create a new Health Summary that will be used with the MED software.

To set the TIU MED HSTYPE parameter, the IRM/CAC staff needs to perform the following procedures:

1. Select the **MANAGE MOBILE ELECTRONIC DOCUMENTATION** option [TIU MED MANAGEMENT].



**NOTE:** To use this option, users *must* be assigned the TIU MED MGT security key.

- 2. At the "Enter Selection" prompt, select one of the following options:
  - 1—User [choose from NEW PERSON].

At the "Please Select USER" prompt enter a user name in the NEW PERSON file (#200).

• 2—Service [choose from SERVICE/SECTION].

At the "Please select a SERVICE" prompt enter the service in the SERVICE/SECTION file (#49).

• 3—Division [choose from INSTITUTION].

At the "Please select a DIVISION:" prompt, enter the institution in the INSTITUTION file (#4).

• 4—System [XXXXXXX.MED.VA.GOV]

Choose from the local system (e.g., ANYWHERE.MED.VA.GOV).

Figure 5. Manage Mobile Electronic Documentation option—Sample user dialogue

```
Select Clinical Informatics Main Menu Option: MANAGE MOBILE ELECTRONIC

DOCUMENTATION

TIU MED HSTYPE may be set for the following:

1 User [choose from NEW PERSON]

2 Service [choose from SERVICE/SECTION]

3 Division [choose from INSTITUTION]

4 System [ANYWHERE.MED.VA.GOV]

Enter Selection: 4 <Enter> System

Enter a HS for SYSTEM [ANYWHERE.MED.VA.GOV]: HBPC MED//
```

### 2.3 Health Summary Parameter Delete Option [TIU MED DEL PARM]

The HEALTH SUMMARY PARAMETER DELETE option [TIU MED DEL PARM] allows IRM/CAC staff to delete the Health Summary Type for MED parameter [TIU MED HSTYPE that had been previously set. Once deleted, MED uses the Health Summary designated at a higher level, such as at the system level.].



**NOTE:** Use the MANAGE MOBILE ELECTRONIC DOCUMENTATION option [TIU MED MANAGEMENT] to modify the currently set Health Summary type (see Section 2.2).

To delete the TIU MED HSTYPE parameter, the IRM/CAC staff needs to perform the following procedures:

- 1. Select the **HEALTH SUMMARY PARAMETER DELETE** option [TIU MED DEL PARM].
- 2. At the "Enter Selection" prompt, select one of the following options:
  - 1—User [choose from NEW PERSON].

At the "Please Select USER" prompt enter a user name in the NEW PERSON file (#200).

• 2—Service [choose from SERVICE/SECTION].

At the "Please select a SERVICE" prompt enter the service in the SERVICE/SECTION file (#49).

• 3—Division [choose from INSTITUTION].

At the "Please select a DIVISION:" prompt, enter the institution in the INSTITUTION file (#4).

• 4—System [XXXXXXX.MED.VA.GOV]

Choose from the local system (e.g., ANYWHERE.MED.VA.GOV).

3. At the "Delete the Health Summary for [XXXXXXX]?" prompt, enter YES.

4. At the "Are you SURE? NO//" prompt, enter YES to confirm the deletion.

```
Figure 6. Health Summary Parameter Delete option—Sample user dialogue
```

```
Select Clinical Informatics Main Menu Option: HEALTH
Delete a Health Summary for the following:

      1
      User
      [choose from NEW PERSON]

      2
      Service
      [choose from SERVICE/SECTION]

      3
      Division
      [choose from INSTITUTION]

      4
      System
      [ANYWHERE.MED.VA.GOV]

      Enter Selection:
      1 <Enter> User

      Please Select USER:
      MED, PATIENT ONE

      Delete the Health Summary for [MED, PATIENT ONE]?
      YES

      Are you SURE?
      NO// YES
```

### 2.4 Verify and Prepare MED Templates for Use with CPRS

After Patch TIU\*1\*244 was installed on the VistA M Server, the post-installation process should have done the following:

- Created the "**Mobile Electronic Documentation**" TIU template folder under the "Shared Templates" TYPE field (#.03) in the TIU TEMPLATE file (#8927), which store the TIU templates (**.txml** files) that are found on the CPRS Notes tab.
- Added the "**Import M.E.D. Notes**" TIU template. This template is used for importing the MED notes, in the following directory on the client workstation:

C:/Program Files/Mobile Electronic Documentation/Templates

- Added the MED NOTE IMPORT .COM object in the OE/RR COM OBJECTS file (#101.15).
- Added the TIU MED HSTYPE parameter in the PARAMETER DEFINITION NAME file (#8989.51).

The MOBILEELECTRONICDOCUMENTATION\_TIU-1-311.MSI installer runs standalone and installs the MED software on a laptop/client workstation. MED copies all template files (**.txml**) from the network shared Templates folder into the laptop/client workstation's Templates folder. The templates are immediately available for use.

# **NOTE:** The **.txml** files are TIU templates that are found on the CPRS Notes tab through the Template Editor. You can export any TIU template through the Template Editor with the exception of Reminder Dialogs. Reminder Dialogs are *not* supported in MED.

You can use patient data objects in any template, but the data will *not* populate *until* the template is imported in CPRS.

Adding the prefix "**ScratchPad\_**" to the name of a TIU template allows the template to be used on the Scratch Pad of MED (e.g., **ScratchPad\_***NAMEOFTEMPLATE*.txml). Due to space limitations on the Scratch Pad tab of MED, you can only add a few Scratch Pad templates.

The Clinical Application Coordinator (CAC) *must* verify that the **Mobile Electronic Documentation** template folder and the **Import M.E.D. Notes** template were installed in the TIU TEMPLATE file (#8927) as part of CPRS.

To verify the existence of the folder and template, perform the following procedures:

- 1. Open the Computerized Patient Record System (CPRS) application.
- 2. Select the Notes tab.
- 3. Click the **Templates** button.
- 4. Expand the **Shared Templates** folder.
- 5. Verify that the **Mobile Electronic Documentation** folder and the **Import M.E.D. Notes** template exists, as shown below:

Figure 7. CPRS—Verifying the Mobile Electronic Documentation folder and the Import M.E.D. Notes template exists

	∇ Templates	
e C	HBPC Templates Initial Visit HBPC Mobile Electronic Documentation Import M.E.D. Notes	<ul> <li></li></ul>
<		>
	Encounter	
	New Note	



F

CAUTION: If the Mobile Electronic Documentation folder and the Import M.E.D. Notes template are *not* installed in CPRS, <u>STOP</u>! Have your CAC enter a National Remedy ticket to Text Integrated Utilities (TIU) for assistance!

#### 2.4.1 Guidelines for Creating Section 508 Compliant TIU Templates

The following is a list of guidelines to use when creating Section 508 compliant TIU templates for use in CPRS and MED. By following these guidelines, templates will work appropriately (e.g., when a visually impaired user is using a screen reader).

- The following Template Field Types can be used:
  - Word Processing
  - Edit Box
  - Combo Box
  - Check Box
  - o Radio Button
  - o Number
  - o Text
- The following Template Field Types should *not* be used:
  - o Button
  - Hyperlink—Hyperlinks do *not* work in MED! Nor when an MED note is imported into CPRS.
  - o Date
- The Template Field can be designated to print on separate lines or designated as required in the set up.
- Defaults values should *not* be set for any Template Field, as the screen reader *cannot* interpret them correctly as a default choice.

• Do *not* use a field within a field in your template design as the screen reader *cannot* follow the secondary dialog box, as shown below:

Action				Delete	Copy New
Template Fields MM-FOOD LIKES CHECK BOX OTHER Check Boxes			HM-FOOD LI	KES CHECK BO	OX OTHER
MM-FOOD LIKES MM-FOOD LIKES === MM-FOOD LIKES BTN MM-FOOD LIKES BTN DEF MM-FOOD LIKES BTN REQ MM-FOOD LIKES CHECK BOX MM-FOOD LIKES CHECK BOX OTHER MM-FOOD LIKES CHECK BOX VERT MM-FOOD LIKES DATE MM-FOOD LIKES DEFAULT MM-FOOD LIKES DEFAULT MM-FOOD LIKES MATE	Combo Box Display Text Button * Button * Button * Button Check Boxes Check Boxes Check Boxes Check Boxes Check Boxes Check Boxes Check Boxes * Radio Buttons * Check Boxes * Check Boxes * Check Boxes	Type: Default Items: Line: 6 Col: 1 LM Test	Check Boxes Field Len TextLen pizza ice cream chocolate spinach other (specify): (FLD:MM-EDIT40)		
MM-FOOD LIKES NUM MM-FOOD LIKES RADIO BTN MM-FOOD LIKES RADIO BTN DEF MM-FOOD LIKES RADIO BTN REQ MM-FOOD LIKES RADIO BTN VERT MM-FOOD LIKES TEXT MM-FUNCTION SCREEN MM-FUNCTIONAL LIMITATIONS MM-GI DRAINS					Indent Field: 0 +

Figure 8. CPRS Templates—Section 508 compliant: Do not use a field within a field

• The Screen Reader Stop Code and the Screen Reader Continue Code Template Fields exported with TIU should *not* be used, as shown below:

#### Figure 9. Templates—Section 508 compliant: Screen Reader Stop Code and Screen Reader Continue Code fields should not be used

🔁 Insert Template Field	الكالك
SCREEN READER STOP CODE **	Screen Reader Code
SCREEN READER CONTINUE CODE ***	Screen Reader Code
0-30	* Combo Box
0-9	Button
00 EDIT BOX 10X60	Edit Box
00 EDIT BOX 10X601	Edit Box
00 EDIT BOX 12	Edit Box
00 EDIT BOX 12 REQ	* Edit Box
00 EDIT BOX 121	Edit Box
00 EDIT BOX 15X60	Edit Box
00 EDIT BOX 20×60	Edit Box
00 EDIT BOX 20X60 REQ	* Edit Box
00 EDIT BOX 2X2	Edit Box
* Indicates a Required Field	Preview Insert Field Done
Screen Reader Codes (make templates)	user friendly for those using screen readers)
** Screen reader will stop speaking at this poi	
*** Place this code after a template field to all	
speaking text that follows the template field	

#### 2.4.2 Deleting Templates

The local Clinical Application Coordinator (CAC) or IRM staff can delete templates for you.

To delete an MED template, perform the following procedures:

1. Navigate to the Network Share Templates directory location from which you wish to delete the stored MED templates (See Section 2.1.1).



**NOTE:** Delete templates from the Network Share Templates directory rather than from the local laptop/client workstation Templates directory.

- 2. Locate and select the template you want to delete.
- 3. Make the template inaccessible by changing the .txml extension on the template to .delete.

Changing the template name on the network location updates the Templates directory on the laptop/client workstation, as long as the directory path on the Data & Files tab in the Users & Settings dialogue points to that network location (see Section 2.1.1).

# 2.5 Progress Notes Import Criteria

### 2.5.1 Date Sensitivity

It is important to note that when MED is started it checks progress notes dates and does the following:

- If the patient name on the list is *not* a manually entered patient, when MED is started, any notes that have been imported over 7 days prior are deleted. Then, any patients that are over 7 days old and do *not* have any pending or imported notes are deleted as well.
- Any patients that are currently on the user's patient list over 7 days old and that do not have any pending or imported notes are deleted as well.



IMPORTANT: In order to avoid deletion of any progress notes or patient lists from MED and to get the latest Health Summary information, users should retrieve their patient lists every day!

### 2.5.2 Delete Manually Entered Patients (Duplicates)

A duplicate patient record in the MED database (i.e., identical Last Name, First Name, SSN, and DOB) may occur when a provider manually enters a patient into MED while in the field, because he/she does not see that the VistA patient has already been retrieved into the MED patient list (i.e., MED Access database). If the provider enters a note to the VistA retrieved patient record and *not* the manually entered record, it will not get imported.

When importing a note for a duplicate patient, the MED import process first finds the manually entered patient. Since the note was not added to the manually entered patient, MED does not find a note for that patient. The only way to import the note for that patient is to delete the manually entered patient from the MED Microsoft® Access database.

Manually entered patients will *never* be automatically deleted. These patients can only be deleted from the patient list through the database.

To delete a manually added patient from the MED Microsoft® Access database/selection list:



# CAUTION: Contact the CAC or IRM to delete any records from the MED Microsoft® Access database!

1. Navigate to the following directory on the laptop/client workstation:

C: Program Files/Mobile Electronic Documentation/db/

- 2. Create a backup of the MED.mdb Microsoft® Access database.
- 3. Double-click on the Microsoft® Access MED.mdb file.
- 4. Under the "Tables" listing in the left pane, double-click on the **Patients** table.
- 5. Select (click on) the row with the manually added patient that you want to delete.



**NOTE:** Make sure that you position the cursor to the far left of the row, so that the entire row gets selected.

- 6. Right-click to open the secondary popup menu.
- 7. Select Delete Record.
- 8. Close the database file by clicking the [X] button in the upper right area of the window.

### 2.5.3 Security Keys

If you have a progress note for a manually entered patient, you *must* hold one of the following MED security keys:

Security Key	Description		
TIU MED MANUAL PATIENT	This security key allows users to enter manual patient notes in MED. If you hold this security key, the following <i>must</i> match exactly:		
	• The first letter of the last name.		
	• The first letter of the first name.		
	<b>NOTE:</b> If the user types Last Name,First Name with a space after the comma, the patient will <i>not</i> be recognized when attempting to import into CPRS.		
	• The date of birth (DOB).		
	• The nine-digit Social Security Number (SSN).		
TIU MED MANUAL OVERRIDE	This security key allows users to enter manual patient notes in MED. If you hold this security key, the full SSN <i>must</i> match exactly.		
	CAUTION: Only a select few users should be given the TIU MED MANUAL OVERRIDE security key. Most users should <i>not</i> be given this key. It is suggested that there be a document review and patient review		
	before importing notes into patient records that have typographical or missing data that stops a user from importing the information as outlined with the TIU MED MANUAL PATIENT security key.		

Table 1. MED—Security keys required for manually entered patients in MED

### 2.5.4 Import Examples

For example, if you hold the TIU MED MANUAL PATIENT security key and have added a manually entered patient like the one shown below, you will be allowed to import.

Table 2. Import Example—TIU MED MANUAL PATIENT security key

CPRS Patient:		MED Patient:		
Name:	MED, PATIENT ONE	Name:	MED, PATIENTS ONE	
DOB:	01/01/1950	DOB:	01/01/1950	
SSN:	000-44-0001	SSN:	000-44-0001	

However, if you have added a manually entered patient like any of those shown below, you will *not* be allowed to import if you only have the TIU MED MANUAL PATIENT security key.

Holders of the TIU MED MANUAL OVERRIDE security key can import patients with different names:

Table 3. Import Example—TIU MED MANUAL OVERRIDE security key: Different names

CPRS Patient:	MED Patient:		
Name: MED, PATIENT ONE	Name: MED, <u>C</u> ASE ONE		
<b>DOB</b> : 01/01/1950	<b>DOB:</b> 01/01/1950		
<b>SSN:</b> 000-44-0001	<b>SSN:</b> 000-44-0001		

Holders of the TIU MED MANUAL OVERRIDE key can import patients with different DOBs:

CPRS Patient:		MED Patient:		
Name: MED,	PATIENT ONE	Name:	MED, PATIENT ONE	
DOB: 01/ <u>01</u> /	(1950	DOB:	01/ <u><b>21</b></u> /1950	
<b>SSN:</b> 000-4	4-0001	SSN:	000-44-0001	

This record *cannot* be imported regardless of the security key a user holds, since the SSN does not match:

CPRS Patient:	MED Patient:		
Name: MED, PATIENT ONE	Name: MED, PATIENT ONE		
<b>DOB:</b> 01/01/1950	<b>DOB:</b> 01/01/1950		
SSN: 000-44- <u>0001</u>	<b>SSN:</b> 000-44- <u>0002</u>		

Table 5. Import Example—Unable to import due to different SSNs

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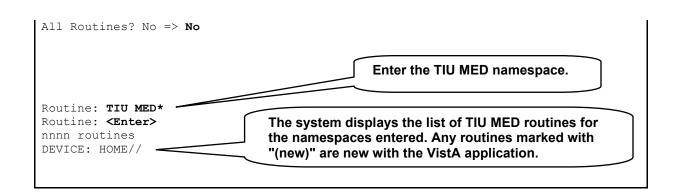
# 3 Routines, Options, Security Keys, and Remote Procedure Calls

### 3.1 Routines

To obtain a list of Routines for the Mobile Electronic Documentation (MED) application and what they do, go to the programmer prompt in the appropriate account, and do the following:

Figure 10. Routines: Obtaining routine information for MED

Select Sy	stems Manager Menu Option: <b>PR <enter></enter></b> ogrammer Options
KIDS NTEG PG	<pre>Kernel Installation &amp; Distribution System Build an 'NTEG' routine for a package Programmer mode Calculate and Show Checksum Values Delete Unreferenced Options Error Processing Global Block Count List Global Map Pointer Relations Number base changer Routine Tools Test an option not in your menu Verifier Tools Menu</pre>
Select Pr	ogrammer Options Option: ROUT <b><enter></enter></b> ine Tools
	<pre>%Index of Routines Check Routines on Other CPUs Compare local/national checksums report Compare routines on tape to disk Compare two routines Copy Packman Routines to VMS File (*) Delete Routines First Line Routine Print Flow Chart Entire Routine Flow Chart from Entry Point Group Routine Edit Input routines List Routines Load/refresh checksum values into ROUTINE file Modified Routine Menu Output routines Routine Edit Routines by Patch Number Variable changer Version Number Update</pre>
Select Ro Routine P	outine Tools Option: <b>LIST <enter></enter></b> Routines Print:
Want to s	tart each routine on a new page: Yes// <b><enter></enter></b>
Want line	e numbers: No// <b><enter></enter></b>



# 3.2 Options

The following VistA TIU options are exported with the MED software:

Option Name	Option Text	Description
TIU MED MANAGEMENT	MANAGE MOBILE ELECTRONIC DOCUMENTATION	Use this option to select the desired Health Summary Report.
		This option allows Information Resource Management (IRM)/Clinical Application Coordinator (CAC) staff to set or modify the parameter that is used to generate Health Summaries in MED. The site needs to identify an existing Health Summary or create a new Health Summary that is used with the MED software.
		with the TIU MED MGT security key.
TIU MED DEL PARM	HEALTH SUMMARY PARAMETER DELETE	Use this option to delete Health Summaries that have been previously set.
TIU MED GUI RPC V2	Mobile Electronic Documentation	This option creates the desired context for the GUI application on the VistA server.
		<b>NOTE:</b> The TIU MED GUI RPC V2 option installed with Patch TIU*1.0*257 replaces the TIU MED GUI RPC option installed with Patch TIU*1.0*244.

#### Table 6. MED exported options

# 3.3 Security Keys

The following security keys are exported with the MED software:

Security Key	Description	
TIU MED MGT	This security key allows IRM/CAC staff access to TIU MED options.	
TIU MED MANUAL PATIENT	This security key allows users to enter manual patient notes in MED. If you hold this security key, the following <i>must</i> match exactly:	
	• The first letter of the last name.	
	• The first letter of the first name.	
	<b>NOTE:</b> If the user types Last Name,First Name with a space after the comma, the patient will <i>not</i> be recognized when attempting to import into CPRS.	
	• The date of birth (DOB).	
	• The nine-digit Social Security Number (SSN).	
TIU MED MANUAL OVERRIDE	This security key allows users to enter manual patient notes in MED. If you hold this security key, the full SSN <i>must</i> match exactly.	
	CAUTION: Only a select few users should be given the TIU MED MANUAL OVERRIDE security key. Most users should <i>not</i> be given this key. It is suggested that there be a document review and patient review before importing notes into patient records that have typographical or missing data that stops a user from importing the information as outlined with the TIU MED MANUAL PATIENT security key.	

 Table 7. MED exported security keys

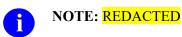
# 3.4 Remote Procedure Calls (RPCs)

The following Remote Procedure Calls (RPCs) are exported with the MED software:

- TIU MED GET HEALTH SUMMARY
- TIU MED GET LIST DATA
- TIU MED GET PATIENT DATA
- TIU MED GET PATIENT LISTS
- TIU MED GET VERSION
- TIU MED GUI RPC V2
- TIU MED GUI VERSION
- TIU MED LAST5
- TIU MED LIST ALL
- TIU MED PATIENT MANAGEMENT

# 4 Troubleshooting—Error Messages

This section discusses the various errors and other messages you may encounter while using the Mobile Electronic Documentation (MED) application.



# 4.1 Patch TIU\*1\*257 is Not Current in VistA Error

#### **Error Message:**

The following error may be displayed when an older version of MED is installed or is the wrong KIDS version in VistA:

Figure 11. MED Error—Patch TIU\*1\*257 is not current in VistA



#### **Description:**

MED is not installed or an older version is installed on VistA.

#### **Resolution:**

Install/Reinstall Patch TIU\*1.0\*257 (TIU\*1.0\*257.KID package).

# 4.2 MED Missing Remote Procedure Calls (RPCs) in VistA Error

#### **Error Message:**

The following error may be displayed when an older version of MED is installed in VistA:

Figure 12. MED Error—Missing RPCs



#### **Description:**

MED is not installed or an older version is installed on VistA and is missing remote procedure calls (RPCs).

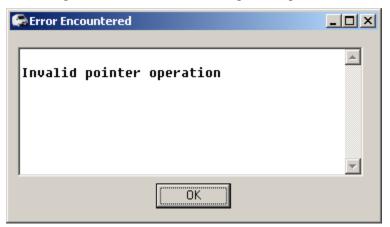
#### **Resolution:**

Install/Reinstall Patch TIU\*1.0\*257 (TIU\*1.0\*257.KID package).

# 4.3 Invalid Pointer Operation Error

#### **Error Message:**

The following error may be displayed if the MED VistA KIDS install is not correct:



#### Figure 13. MED Error—Invalid pointer operation

#### **Description:**

The MED application is missing all the remote procedure calls (RPCs).

#### **Resolution:**

Install/Reinstall Patch TIU\*1.0\*257 (TIU\*1.0\*257.KID package).

## 4.4 Application Context Error

#### **Error Message:**

The following error may be displayed for MED application context errors:

Figure	14.	MED	Error—	Ann	lication	context
I Igui c		TTL D	LIIVI	• • P P	meation	context

	<u>×</u>
8	An error occured. Please contact IRM/ISS and give them the errorApplication context has not been created!
	(COK

#### **Description:**

Application context is a menu requirement for using all Remote Procedure Call (RPC) Broker calls. Each application has its own application context. The MED application context is TIU MED GUI RPC V2.

#### **Resolution:**

The TIU MED GUI RPC V2 menu option is distributed with Patch TIU\*1\*257 and needs to be assigned to all MED users, either on a common menu or one of the user's secondary menus.

# 4.5 Write Access Error

#### **Error Message:**

The following access error may be displayed for MED application users who do *not* have the appropriate access permissions to the MED directory:

#### Figure 15. MED Error—Write access permissions error

```
Exception EFCreateError in module MED.exe at 0002363E
Cannot create file "C:\Program Files\Mobile Electronic Documentation\med.err".
Access is denied.
```

#### **Description:**

The user does not have the appropriate access permissions to the MED executable directory on the client workstation/laptop. In order for users to write the appropriate information while using the MED software, all users *must* be given **Full Control** access permission to the following MED application directory:

C:\Program Files\Mobile Electronic Documentation

#### **Resolution:**

Give all users **Full Control** access permission to the following MED application directory on the client workstation/laptop:

C:\Program Files\Mobile Electronic Documentation

# 4.6 CPRS CHART – Library Not Registered Error

#### **Error Message:**

The following access error may be displayed when trying to import a MED note into CPRS for those MED application users who do *not* have the appropriate access permissions to the MED directory:

#### Figure 16. MED Error—CPRS CHART – Library Not Registered Error

CPRS CHART - Library Not Registered

#### **Description:**

The user does *not* have the appropriate access permissions to the MED executable directory on the client workstation/laptop. In order for users to write the appropriate information while using the MED software, all users *must* be given **Full Control** access permission to the following MED application directory:

C:\Program Files\Mobile Electronic Documentation

#### **Resolution:**

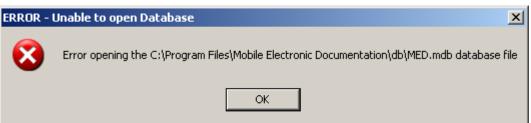
Give all Home Based Primary Care (HBPC) users **Full Control** access permission to the following MED application directory on the client workstation/laptop:

C:\Program Files\Mobile Electronic Documentation

### 4.7 MED Database Open Error

#### **Error Message:**

The following error may be displayed if there is a problem with opening the MED database:



#### Figure 17. MED Error—Database is not installed correctly

#### **Description:**

The **MED.mdb** database should be in the following db subdirectory:

C:\Program Files\Mobile Electronic Documentation\db\MED.mdb

#### **Resolution:**

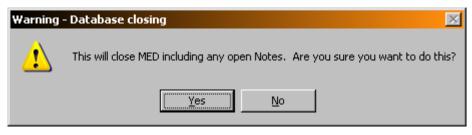
Install/Reinstall Patch TIU\*1.0\*257 (TIU\*1.0\*257.KID package).

# 4.8 MED Database Compact Messages

#### Warning Message:

The following warning message will be displayed when compacting the MED Microsoft® Access database:

Figure 18. MED Warning—Database closing



After clicking **YES**, you should see the following message:



Figure 19. MED Information Message—Database Compacted

After pressing **OK**, MED closes.

#### **Description:**

When the MED database meets or exceeds this size in the **Suggest Compact After (MB)** field (default value is 1024 MB), MED automatically prompts the user to compact the database. Currently, it is suggested the user answer **No** to compact the database when prompted. If users choose to compact the database they will see a series of warning and action messages (see above).

The **MED.mdb** database should be in the following db subdirectory:

C:\Program Files\Mobile Electronic Documentation \db\MED.mdb



**REF:** For more information on compacting the MED database, see Step 30 in the "Configure Client Workstation" section in the *Mobile Electronic Documentation (MED) Technical Manual*.

#### **Resolution:**

Close and save all open notes before compacting the MED Microsoft® Access database.

### 4.9 Network Connection Error

#### **Error Message:**

The following blank dialogues may be displayed if the MED RPC Broker fails to make a VistA connection:

Figure 20. MED Error—Network Connection: Blank Retrieve Patient(s) dialogue (1 of 2)

Retrieve Patient(s) : Select Patient	Patient Information Name: SSN: DOB: Sex: Retrieve Patient:
 <u>₿</u> ack	Retrieve Patient:

Or:

ersonal List:	Patients:		Information	
	-	Nar		
		SSN		
		DOE	}:	
		Sex		
			Retrieve Checked Patients	
	Uncheck All Patien	in on List		

Figure 21. MED Error—Network Connection: Blank Retrieve Patient(s) dialogue (2 of 2)

#### **Description:**

There may be a very long pause after selecting **Retrieve Patients**, and then the Retrieve Patients dialogue is blank. MED is running but *not* connected to VistA.

#### **Resolution:**

Check the desktop shortcut. Verify that the IP server address and port number is correct. Also, check for a network connection error.

### 4.10 RPC Broker Error

#### **Error Message**

You may see the following Remote Procedure Call (RPC) Broker error dialogue when starting MED:



#### Figure 22. Errors—RPC Broker Error: Patient list retrieval error

#### **Description:**

This means that the user has not been assigned the Mobile Electronic Documentation secondary option [TIU MED GUI RPC].

#### **Resolution:**

Contact the Information Resource Management (IRM) or Clinical Applications Coordinator (CAC) to gain access to the Mobile Electronic Documentation secondary option [TIU MED GUI RPC V2].

### 4.11 CPRS Error

#### **Error Message**

You may see the following dialogue when trying to import notes into CPRS:

#### Figure 23. Errors—CPRS - Patient Chart Error: Importing notes error message

CPR5 - Patient Chart	×
COM Object MED NOTES IMPORT not found on this workstation.	
OK	

#### **Description:**

You may be trying to import MED notes on a computer that does not have MED installed. For example, MED is installed on the laptop/client workstation, but you are trying to import MED notes on another client workstation.

#### **Resolution:**

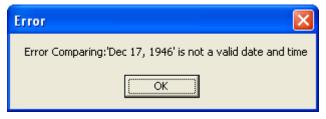
If MED is loaded on the laptop/client workstation, contact IRM for assistance to "re-register" the MEDImport.dll file and then restart CPRS.

# 4.12 Invalid Date Error

#### **Error Message:**

The following error may be displayed during the patient import process:

Figure 24. MED Error—Invalid date



#### **Description:**

The Date of Birth (DOB) is in the wrong format in the MED database (MED.mdb). Click the **OK** button to retrieve more details.

#### **Resolution:**

Verify that the correct MED GUI Version 2.3.311.6 is running on the laptop/client workstation. If it is the correct GUI, then the current patient information is from a prior version. To fix this, use the current MED GUI to retrieve the patient data and it will properly update the DOB in the MED database.

# 4.13 Missing Required Data Fields Error

#### **Error Message:**

The following types of error messages may be displayed for missing data fields (highlighted):

ELANDA 15 MED ELANA	Minain a monimal	data Calda and Castian	<b>500</b>	A atten Contion Cal	~ -
FIGHTE 25. WELD ETTOR-	—wussing reamrea	data fields and Section	SUX compliance:	Active Caption Col	or
i igui e zet mille li i or	This shing i equil eu	and merus and section	coo compnance.	richie Cuption Con	•••

Patient identified using two personal identifiers: *		
Full name	Warning Message	
🔽 Full Social Security Number		
Date of Birth	One or more required fields must still be entered.	
C Other	Missing required items have been highlighted for you.	
Primary Diagnosis:	ОК	
Problem list:  VA-WRIISC ACTIVE Allergies:  ALLERGIES/ADR		

#### **Description:**

Required fields in templates that are missing data will display a warning message, and the missing fields will be highlighted in blue. Just as in CPRS, the template *cannot* be completed and saved unless the required fields are completed. Unlike CPRS regular dialog templates, the missing fields will be obviously marked.



**NOTE:** Prior versions of MED highlighted required missing data fields in yellow. To make MED Section 508 compliant, the color of the fields is now set to **Active Caption Color**.

**REF:** For more information on making templates Section 508 compliant, see the "Guidelines for Creating Section 508 Compliant TIU Templates" section in this manual.

#### **Resolution:**

Enter the missing required data fields.

Users can reset he highlight colors by changing the Microsoft® Windows theme.

Troubleshooting—Error Messages

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# Glossary

CPRS	Computerized Patient Record System, the VistA package (in both GUI and character-based formats) that provides access to most components of the patient chart.
CAC	Clinical Applications Coordinator. The CAC is a person at a hospital or clinic assigned to coordinate the installation, maintenance and upgrading of CPRS and other VistA software programs for the end users.
HEALTH SUMMARY	A VistA product that can be viewed through CPRS, Health Summaries are components of patient information extracted from other VistA applications.
HBPC	Home Based Primary Care.
PROGRESS NOTES	A component of TIU that can function as part of CPRS.
VISTA	Veterans Information Systems Technology Architecture.
MED	Mobile Electronic Documentation. Application that provides remote documentation and importing of notes into CPRS.
MED NOTES	Notes created from exported CPRS Templates that can then be re- imported into CPRS.
RETRIEVING PATIENT RECORDS	When you retrieve patient records in MED, you are obtaining updated patient data (e.g., Health Summaries) from Veterans Information Systems Technology Architecture (VistA) and updating the MED Microsoft® Access database. In order to retrieve patient records in MED, you must be connected to VistA and will be prompted to enter your VistA signon credentials.
SELECTING PATIENT RECORDS	When you select patient records in MED, you are selecting previously retrieved patients from the MED Microsoft® Access database. In order to select patient records in MED, you do not need to be connected to VistA and will not be prompted to enter your VistA signon credentials.

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