ICD-10 Patient Treatment File (PTF) Modifications

Admission, Discharge, Transfer (ADT) - DG*5.3*884

Health Summary (HS) - GMTS*2.7*111

Integrated Billing (IB) - IB*2.0*522

Lab Anatomic Pathology (AP) and Emerging Pathogens Initiative (EPI) - LR*5.2*442

Order Entry/Results Reporting (OE/RR) - OR*3.0*406

Clinical Case Registries (CCR) - ROR*1.5*25

Installation Guide



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Revision History

Date	Version	Description	Author
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1. Introduction

Veterans Health Administration (VHA) software remediation for the International Classification of Diseases, Tenth Revision (ICD-10) enabled the transition to support the use of ICD-10 code sets. ICD-10 Clinical Modification (ICD-10-CM) will replace ICD-9-CM as the diagnostic coding system, and ICD-10 Procedure Coding System (ICD-10-PCS) will replace ICD-9-CM as the procedural coding system. The Patient Treatment File (PTF) Modifications project will increase the maximum allowable codes in the entry, display, lookup, view, print, storage, and transmission of the ICD-10 code sets in the VistA legacy and Healthevet systems. Effective as of the ICD-10 activation date, VHA will be able to utilize the ICD-10 code sets to include the increased number of diagnosis and procedures which can be recorded in its day-to-day operations (e.g. entry, display, lookup, print, storage, internal and/or external transmission) for inpatient episodes of care with discharges on or after this date.

The ICD-10 PTF Modifications project supports the expansion of the number of ICD-10 Diagnosis, Present on Admission (POA) indicators, and Procedure and Surgical codes that may be contained in a patient treatment record. The user will now be able to enter up to 25 ICD-10 diagnosis codes with their associated POA indicators in each Movement (501) screen and in the Discharge (701) screen of a patient treatment record. The user will also be able to enter up to 25 ICD-10 procedure codes in each Surgical Episode (401) screen and in each Non-Operating Room (OR) Procedure (601) screen.

The ICD-10 PTF Modifications project is comprised of six patches, which are being released within a single Kernel Installation and Distribution System (KIDS) multi-package build (host file):

- Admission, Discharge, Transfer (ADT, also known as Registration), DG*5.3*884
- CPRS: Health Summary (HS), GMTS*2.7*111
- Integrated Billing (IB), IB*2.0*522
- Lab Service: Anatomic Pathology (AP) and Laboratory: Emerging Pathogens Initiative (EPI), LR*5.2*442
- CPRS: Order Entry/Results Reporting (OE/RR), OR*3.0*406
- Clinical Case Registries (CCR), ROR*1.5*25

1.1. Software Disclaimer

This software was developed at the Department of Veterans Affairs (VA) by employees of the Federal Government in the course of their official duties. Pursuant to Title 17, Section 105, of the United States Code, this software is not subject to copyright protection and is in the public domain. VA assumes no responsibility whatsoever for its use by other parties, and makes no guarantees, expressed or implied, about its quality, reliability, or any other characteristic. We would appreciate acknowledgement if the software is used. This software can be redistributed and/or modified freely provided that any derivative works bear some

notice that they are derived from it, and any modified versions bear some notice that they have been modified.

1.2. Documentation Disclaimer

The appearance of 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 find at these locations. Such links are provided and are consistent with the stated purpose of the VA.

2. Pre-Installation Information

2.1. Environment Check

Patch DG*5.3*884 includes an environment check (ENV^DG884P) that will ensure the following requirements are satisfied prior to patch installation:

- Programmer access is required for installing this patch. Prior to installation, the installer must ensure the DUZ(0) node of the DUZ array is set to the "@" symbol.
- The 'REDACTED' entry is required in the DOMAIN (#4.2) file. Prior to installation, the installer should check the DOMAIN file to make certain this entry exists. If it does not, the user should follow the instructions in the XM*999*179 patch to create it. This patch installation will not run until this DOMAIN file entry exists.
- Several DRG-related files should have the correct number of nationally released entries. If they do not, a message is displayed to the patch installer to log a Remedy ticket. Also, a message is sent to a customer support mail group on FORUM.
 NOTE: This will NOT stop the patch from installing.

2.2. Add Installer to Reminder Management Mail Group

Patch DG*5.3*884 automatically queues a background job that will rebuild the Clinical Reminders Global Index, ^PXRMINDX (45), in the new format. Reminder evaluation will be disabled while these indexes are rebuilding.

NOTE: Estimated re-indexing time is 10 minutes to 3 hours. <u>All users must be logged off of the system</u> until the re-indexing background job has been completed. By taking this step, sites will prevent missed actions as a result of reminder functionality interruption due to re-indexing. This eliminates any risk to patient safety or data due to incomplete or missed clinical reminders.

The background job will generate one or two messages to the Clinical Reminders Management mail group. One message will provide the status of the rebuild and specify if any entries could not be indexed or problems were encountered. If there were problems, another message will be sent with the details regarding the entries that could not be indexed. Because users must be logged off of the system until the re-indexing is complete, it is important for the installer to be added to the Clinical Reminders Management mail group in order to be notified of re-indexing status.

The messages are sent to the REMINDER MANAGEMENT MAILGROUP defined in the CLINICAL REMINDER PARAMETERS (#800) file entry. **NOTE:** This mail group name may not be the same on all VistA instances. **See <u>APPENDIX A – Reminder Management Mail Group</u> for instructions on how to locate the name of this mail group and how to add and remove a user from this mail group.**

2.3. Pre-Installation Routine

Patch DG*5.3*884 includes a pre-installation routine, PRE^DG884P, which will perform the following actions:

• Delete the "AO" cross-references from the following five OPERATION CODE fields in the 401 (#45.01) sub-file of the PTF (#45) file:

Table 1: 401 Sub-File Fields From Which AO Cross-References Will Be Removed

Field Number	Field Name
8	OPERATION CODE 1
9	OPERATION CODE 2
10	OPERATION CODE 3
11	OPERATION CODE 4
12	OPERATION CODE 5

- Since it is possible for the installer to skip running the environment check routine, the pre-installation routine also checks for the existence of the REDACTED entry in the DOMAIN (#4.2) file. If it does not exist, this patch installation will stop until it is created.
- A new mail group is created in the MAIL GROUP (#3.8) file. The mail group name is PTI. The purpose of this new mail group is to accept confirmation messages from the Austin Information Technology Center (AITC). Currently, the existing PTT mail group handles this function, but it will become dormant. The members of the PTT mail group will be automatically added to the new PTI mail group. If the PTT mail group does not have any members, the installer will be automatically added as a new member to the new PTI mail group. In that case, the installer should find out which persons at the site should be added as members to the new PTI mail group. The MailMan package will not deliver messages to a mail group that does not have any members assigned to it.
- The PTF125 entry in the TRANSMISSION ROUTERS (#407.7) file is modified to send PTF record messages to the new REDACTED domain at the AITC. The existing REDACTED domain will no longer be used to send PTF record messages. If the PTF125 entry does not exist, it will be created. If, for any reason, the PTF125 entry cannot be created or modified, an error message will be displayed to the installer, and the patch installation will stop.
- Several DRG-related files are checked to ensure they have the correct number of nationally released entries. If they do not, a message is displayed to the patch installer to log a Remedy ticket. Also, a message is sent to a customer support mail group on FORUM. **NOTE:** This will NOT stop the patch from installing.

2.4. Required Builds

The following tables list the REQUIRED builds for this KIDS software distribution. KIDS will not allow the installation of this patch without their prior installation.

NOTE: DG*5.3*884 is included in this KIDS distribution and is a required build for the subsequent builds in this KIDS distribution, GMTS*2.7*111, IB*2.0*522, LR*5.2*442, OR*3.0*406, and ROR*1.5*25.

The builds listed below are required prior to installing DG*5.3*884.

Table 2: DG*5.3*884 Required Builds

Required Build	Required Build Subject	Required Build Release Date
DG*5.3*850	ADT ICD-10 REMEDIATION	8/5/2014
DG*5.3*862	PTF ICD-10 CHANGES FOR CLINICAL REMINDERS	7/24/2014
DG*5.3*867	DG NEWBORN CLAIMS ENHANCEMENT	12/10/2013
DG*5.3*898	PATCH FOR 601 DISCHARGE DATE	10/14/2014
DG*5.3*905	REGISTRATION PTF FIXES	6/16/2015
XM*999*179	NEW DOMAIN REDACTED ADDED TO DOMAIN (#4.2) FILE	7/30/2015

The builds listed below are required prior to installing GMTS*2.7*111.

Table 3: GMTS*2.7*111 Required Builds

Required Build	Required Build Subject	Required Build Release Date
DG*5.3*884	ICD-10 PATIENT TREATMENT FILE MODIFICATIONS PROJECT	9/2/2015
GMTS*2.7*101	ICD-10 – Health Summary Updates	8/29/2014

The builds listed below are required prior to installing IB*2.0*522.

Table 4: IB*2.0*522 Required Builds

Required Build	Required Build Subject	Required Build Release Date
DG*5.3*884	ICD-10 PATIENT TREATMENT FILE MODIFICATIONS PROJECT	9/2/2015
IB*2.0*461	IB ICD-10 CLASS 1 REMEDIATION	10/22/2014
IB*2.0*479	SITE PARAMETER DISPLAYS INCORRECTLY FOR IV SECTION	1/13/2014
IB*2.0*516	EBILLING - CLAIMS COMPLIANCE	5/12/2015

The builds listed below are required prior to installing LR*5.2*442.

Table 5: LR*5.2*442 Required Builds

Required Build	Required Build Subject	Required Build Release Date
DG*5.3*884	ICD-10 PATIENT TREATMENT FILE MODIFICATIONS PROJECT	9/2/2015
LR*5.2*421	EMERGING PATHOGENS INITIATIVE (EPI) ICD-10 CLASS I REMEDIATION PROJECT	8/15/2014
LR*5.2*422	ANATOMIC PATHOLOGY ICD-10 CLASS 1 REMEDIATION PROJECT	8/15/2014

The builds listed below are required prior to installing OR*3.0*406.

Table 6: OR*3.0*406 Required Builds

Required Build	Required Build Subject	Required Build Release Date
DG*5.3*884	ICD-10 PATIENT TREATMENT FILE MODIFICATIONS PROJECT	9/2/2015

The builds listed below are required prior to installing ROR*1.5*25.

Table 7: ROR*1.5*25 Required Builds

Required Build	Required Build Subject	Required Build Release Date
DG*5.3*884	ICD-10 PATIENT TREATMENT FILE MODIFICATIONS PROJECT	9/2/2015
ROR*1.5*27	MINOR CCR CHANGES (Updates to Support Enhanced ICD-10 PTF Procedures and Diagnoses)	6/10/2015

3. ICD-10 PTF Modifications Installation Instructions



3.1. Warnings

3.1.1. WARNING: Install During Non-Peak/Off-Hours With All Users Logged Off the System

Please install this patch in your production accounts during non-peak/off-hours. The Clinical Reminders Global Index ^PXRMINDX (45) will be rebuilt for the PTF (#45) file, and reminder evaluation will be disabled while these indexes are rebuilding.

NOTE: Estimated re-indexing time is 10 minutes to 3 hours. <u>All users must be logged off of the system</u> until the re-indexing background job has been completed. If you followed the instructions in Section 2.2 above (<u>Add Installer to Reminder Management Mail Group</u>), you will receive a MailMan message upon completion.

By taking this step, sites will prevent missed actions as a result of reminder functionality interruption due to re-indexing. This eliminates any risk to patient safety or data due to incomplete or missed clinical reminders.

Notify the Health Information Management (HIM) Chief and Implementation Business Manager when the ICD-10 PTF Modifications software is scheduled to be installed.

3.1.2. WARNING: Do Not Install While the PTF Background Job [DG PTF BACKGROUND JOB] Is Running

Do not install this patch while the PTF Background Job [DG PTF BACKGROUND JOB] option is running or during the time it is scheduled to run.

3.1.3. WARNING: Do Not Install While IB Queue Means Test Compilation of Charges [IB MT NIGHT COMP] Is Running

Do not install this patch while the Queue Means Test Compilation of Charges [IB MT NIGHT COMP] option is running or during the time it is scheduled to run.

3.1.4. WARNING: Do Not Install While Lab EPI Nightly Task [LREPI NIGHTLY TASK] Is Running

Do not install this patch while the Lab EPI Nightly Task [LREPI NIGHTLY TASK] option is running or during the time it is scheduled to run.

3.1.5. WARNING: Do Not Install While CCR Nightly Task, Registry Update & Data Extraction [ROR TASK] Is Running

Do not install this patch while the CCR nightly task, Registry Update & Data Extraction [ROR TASK] option is running or during the time it is scheduled to run.

3.1.6. RECOMMENDATION: Do Not Install During System Backup

It is recommended to schedule installation outside of the timeframe(s) during which a system backup is scheduled to run.

3.2. Users Must Be Off the System

This software distribution should be loaded during non-peak/off-hours with all users logged off the system. Notify the Health Information Management (HIM) Chief and Implementation Business Manager when the ICD-10 PTF Modifications software is scheduled to be installed.

Additionally, the following options should be placed out of order to reduce the possibility of errors when the routines are updated:

- All options beginning with "DG PTF" ("DG<space>PTF")
 - Place all options beginning with "DG PTF" out of order by entering "DG PTF*"
- Enter/Edit Billing Information [IB EDIT BILLING INFO]

3.3. Distribution

This software distribution contains six builds in a single KIDS multi-package host file. In addition, CCR patch ROR*1.5*25 includes a revised Graphical User Interface (GUI) application, which must be distributed to the appropriate workstations. After the patch is installed correctly and the GUI is updated, the version of the GUI will be 1.5.25. The GUI is distributed in a separate zip file (see Section 3.5.2, Software Files).

NOTE: DG*5.3*884 is included in this KIDS distribution and is a required build for the subsequent builds in this KIDS distribution, GMTS*2.7*111, IB*2.0*522, LR*5.2*442, OR*3.0*406, and ROR*1.5*25 (see Section 2.3, Required Builds).

3.4. Estimated Timing

The estimated installation time for this software distribution is less than 5 minutes during off-peak hours with all users logged off the system.

The background job to perform a rebuild of the Clinical Reminders Global Index, ^PXRMINDX(45), will be automatically queued during the DG*5.3*884 post-installation process. It will not impact the software installation time.

NOTE: Post-installation estimated re-indexing time is 10 minutes to 3 hours. <u>All users must be logged off of the system</u> until the re-indexing background job has been completed. If you followed the instructions in Section 2.2 above (<u>Add Installer to Reminder Management Mail Group</u>), you will receive a MailMan message upon completion.

By taking this step, sites will prevent missed actions as a result of reminder functionality interruption due to re-indexing. This eliminates any risk to patient safety or data due to incomplete or missed clinical reminders.

Notify the Health Information Management (HIM) Chief and Implementation Business Manager when the ICD-10 PTF Modifications software is scheduled to be installed.

3.5. File Retrieval

Updated documentation describing the functionality introduced by the ICD-10 PTF Modifications project is available in the [ANONYMOUS.SOFTWARE] directories at the following Internet addresses:

Table 8: Anonymous Directories

Preferred or Specific Server	FTP Address
First available FTP server	download.vista.med.va.gov (Preferred)
Albany	REDACTED
Hines	REDACTED
Salt Lake City	REDACTED

3.5.1. New and Updated Documentation

Below is a list of the documentation files related to the ICD-10 PTF Modifications project, which are available via the FTP sites listed above:

Table 9: Updated Documents

File Name	Document File Description	New or Updated	FTP Protocol
ICD_10_PTF_MODIFICATIONS_IG.PDF	ICD-10 PTF Installation Guide (all patches)	New	Binary

File Name	Document File Description	New or Updated	FTP Protocol
DG_5_3_884_RN.pdf	Admission Discharge Transfer DG*5.3*884 Release Notes	New	Binary
pimstm.pdf	Admission Discharge Transfer Technical Manual	Updated	Binary
ptf.pdf	Admission Discharge Transfer PTF Menu User Manual	Updated	Binary
pxrm_index_tm.pdf	Clinical Reminders Index Technical Manual	Updated	Binary
ROR1_5_25RN.pdf (may be contained in ROR1_5P25DOC2.ZIP)	Clinical Case Registries ROR*1.5*25 Release Notes	New	Binary
ROR1_5_25TM.pdf (may be contained in ROR1_5P25DOC2.ZIP)	Clinical Case Registries Technical Manual	Updated	Binary
ROR1_5_25UM.pdf (may be contained in ROR1_5P25DOC1.ZIP)	Clinical Case Registries User Manual	Updated	Binary
GMTS_2_7_111_RN.pdf	CPRS: Health Summary GMTS*2.7*11 1 Release Notes	New	Binary

File Name	Document File Description	New or Updated	FTP Protocol
hsum_2_7_tm.pdf	CPRS: Health Summary Technical Manual	Updated	Binary
hsum_2_7_um.pdf	CPRS: Health Summary User Manual	Updated	Binary
OR_3_0_406_RN.pdf	CPRS: Order Entry/Results Reporting OR*3.0*406 Release Notes	New	Binary
IB_2_522_RN.pdf	Integrated Billing IB*2.0*522 Release Notes	New	Binary
ib_2_0_tm.pdf	Integrated Billing Technical Manual	Updated	Binary
ib_2_0_um.pdf	Integrated Billing (IB) User Guide	Updated	Binary
LR_5_2_442_RN.pdf	Laboratory: Anatomic Pathology and Laboratory: Emerging Pathogens Initiative LR*5.2*442 Release Notes	New	Binary
lab_epi_rollup_mod_tech_user_manual.pdf	Laboratory EPI Roll Up Modifications Technical and User Manual	Updated	Binary

File Name	Document File Description	New or Updated	FTP Protocol
lab_epi_tech_user_guide.pdf	Laboratory EPI Technical and User Guide	Updated	Binary
lab_epi_hepc_tech_user_guide.pdf	Laboratory Hepatitis C and EPI Technical and User Guide	Updated	Binary
lab_epi_searchextract_tm_ug.pdf	Laboratory Search/Extract Technical and User Guide	Updated	Binary
Lab_AP_LR_5_2_UG.pdf	Laboratory Anatomic Pathology (AP) User Guide	Updated	Binary

Upon software release, the updated manuals may also be retrieved from the VA Software Document Library (VDL) website at http://www.va.gov/vdl/.

3.5.2. Software Files

The following files are available for download:

Table 10: Software Files to Download

Host File	File Name	FTP Protocol
KIDS Distribution	ICD_10_PTF_MODIFICATIONS.KID The KID file contains 6 patches:	ASCII
CCR Revised GUI for ROR*1.5*25	ROR1_5P25GUI.ZIP The ZIP file contains CCRSetup.exe.	Binary

3.6. Environment

Programmer access is required for installing patch DG*5.3*884.

Patch DG*5.3*884 includes an environment check, ENV^DG884P, which will ensure the following requirements are satisfied prior to patch installation (see Section 2.1, Environment Check, above for more information):

- Verify that the DUZ(0) node of the DUZ array is set to the "@" symbol.
- Verify that the REDACTED entry exists in the DOMAIN (#4.2) file.
- Verify DRG-related files have the correct number of nationally released entries. **NOTE:** The patch may still be installed if this requirement is not met.

3.7. Load Software Distribution

Follow the steps below to load the software distribution:

- 1. Retrieve the file ICD_10_PTF_MODIFICATIONS.KID using one of the methods described above.
- 2. From the Kernel Installation and Distribution System menu [XPD MAIN], select the Installation menu [XPD INSTALLATION MENU].
- 3. From the Installation menu, select the LOAD A DISTRIBUTION option.
- 4. When prompted for "Enter a Host File:", **enter the full directory path where you saved the host file**, ICD_10_PTF_MODIFICATIONS.KID (e.g., SYS\$SYSDEVICE:[ANONYMOUS]_ICD_10_PTF_MODIFICATIONS.KID).

- 5. When prompted for "OK to continue with Load? NO//", enter "YES".
- 6. When prompted for "Want to RUN the Environment Check Routine? YES//", accept the default "YES" answer.
- 7. Use "DG*5.3*884" as the INSTALL NAME to install this distribution.

Partial example of what will display (see APPENDIX B – Captured Install for a complete installation example):

```
Loading Distribution...

DG*5.3*884
GMTS*2.7*111
IB*2.0*522
LR*5.2*442
ROR*1.5*25
OR*3.0*406

Build DG*5.3*884 has an Environmental Check Routine

Want to RUN the Environment Check Routine? YES// YES
DG*5.3*884
Will first run the Environment Check Routine, DG884P
```

3.8. Run Installation Options for Multi-build

From the Installation menu, you may select to use the following options:

NOTE: When prompted for the INSTALL NAME, enter "DG*5.3*884".

3.8.1. Backup a Transport Global

This option will create a backup message of any routines exported with this patch. It will not back up any other changes such as DD's or templates.

3.8.2. Compare Transport Global to Current System (Optional)

This option will allow you to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, DD's, templates, etc.).

3.8.3. Verify Checksums in Transport Global

This option will allow you to ensure the integrity of the routines that are in the transport global.

3.9. Install KIDS Multi-Build

This is how to start the installation of this KIDS build. These procedures will need to be followed for ICD-10 PTF Modifications, "DG*5.3*884" multi-build.

- 1. Choose the Install Package(s) option to start the install.
- 2. When prompted for the "Select INSTALL NAME:", enter "DG*5.3*884".

- 3. When prompted "Want KIDS to INHIBIT LOGONs during the install? NO//", answer "YES".
- 4. When prompted "Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//", accept the default "YES" answer.
- 5. When prompted "Enter options you wish to mark as 'Out Of Order':", enter the following options:
 - a. Place all options beginning with "DG PTF" ("DG<space>PTF") out of order by entering "DG PTF*".
 - b. Enter/Edit Billing Information [IB EDIT BILLING INFO]
- 6. When prompted "Enter protocols you wish to mark as 'Out Of Order':", press the <return> or <enter> key.
- 7. When prompted "Delay Install (Minutes): (0-60): 0//", enter an appropriate number of minutes to delay the installation in order to give users enough time to exit the disabled options before the installation starts.
- 8. When prompted "Device: Home//", respond with the correct device.

4. Post Installation Information

There are no Post-installation instructions associated with this patch; all post-installation activities will occur automatically. However, action may be needed if bad data is encountered in PTF (see Section 4.1.1.1, Clinical Reminders Management Mail Group Messages, below).

4.1. DG*5.3*884 Post-Installation Routine

Patch DG*5.3*884 includes a post-installation routine, POST^DG884P, that will perform the actions below.

4.1.1. Rebuild Clinical Reminders Global Index ^PXRMINDX(45)

Patch DG*5.3*884 automatically queues a background job that will rebuild the Clinical Reminders Global Index, ^PXRMINDX (45), in the new format. Reminder evaluation will be disabled while these indexes are rebuilding.

NOTE: Post-installation estimated re-indexing time is 10 minutes to 3 hours. <u>All users must be logged off of the system</u> until the re-indexing background job has been completed. If you followed the instructions in Section 2.2 above (<u>Add Installer to Reminder Management Mail Group</u>), you will receive a MailMan message upon completion.

By taking this step, sites will prevent missed actions as a result of reminder functionality interruption due to re-indexing. This eliminates any risk to patient safety or data due to incomplete or missed clinical reminders.

4.1.1.1. Clinical Reminders Management Mail Group Messages

This job will generate one or two messages to the Clinical Reminders Management mail group. This is the mail group defined in the CLINICAL REMINDER PARAMETERS (#800) file entry.

- One message will provide the status of the rebuild, and specify if any entries could not be indexed or problems were encountered.
- If there were problems, another message will be sent with the details regarding the entries that could not be indexed. If bad data is encountered in PTF and you need assistance dealing with it, you may submit a support ticket.

4.1.2. Recompile Input Templates Where Field DD Definition Changed

Patch DG*5.3*884 will recompile all compiled input templates that contain specific fields where the Data Dictionary definition of these fields has changed and are being exported with this patch.

4.2. OR*3.0*406 Post-Installation Routine

Patch OR*3.0*406 includes a post-installation routine, POST^ORY406, to establish a default value at the PACKAGE level for the ORWRP TIME/OCC LIMITS INDV parameter. For more information on the default parameter value, please refer to the OR*3.0*406 Release Notes on the VDL: http://www.va.gov/vdl/application.asp?appid=61.

The following reports in the OE/RR REPORT (#101.24) file will have a value set:

- 1. ORRPW ADT ADM DC
- 2. ORRPW ADT DC DIAG
- 3. ORRPW ADT EXP
- 4. ORRPW ADT ICD PROC
- 5. ORRPW ADT ICD SURG
- 6. ORRPW DOD ADT EXP

4.3. ROR*1.5*25 Post-Installation Routine

The ROR*1.5*25 post-installation routine, POST^RORP025, performs the following function:

Adds new entries to the ROR METADATA file (#799.2) for the PTF ICD-10
Diagnosis fields. These entries are used to define selection rules for inclusion of
patients in the CCR registries.

4.4. Optional: Delete Post-Installation Routines

The following pre/post-installation routines may be deleted from the system if the post-installation process has completed.

- DG884P
- ORY406
- RORP025

5. Install the Clinical Case Registries Graphical User Interface

5.1. Background Information

The current CCR Graphical User Interface (GUI) provides access to both Hepatitis C and HIV registries.

It is **strongly** recommended that the CCR GUI be installed on a file server and the CCR application be made available to the CCR users via the Computerized Patient Record System (CPRS) Tool menu. Installing the CCR GUI on workstations is **not** recommended.

Access to the registries is controlled by the security keys within VistA.

For users who have access to a single registry, its window will be opened automatically by the GUI. Users who have access to both registries will be able to select a registry from a list.

The GUI supports the /NOCCOW command-line parameter that completely disables the CCOW functionality. It also supports the parameter /CCOW=PatientOnly, which disables only the Single Sign-On/User Context (SSO/UC) functionality.

5.2. Uninstall Older CCR GUI Versions

5.2.1. First-Time Installation of CCR GUI

There should not be any old software to be uninstalled. If you are unsure whether old software is present, use the uninstall instructions in Section 5.2.3, Instructions to Uninstall Previous CCR GUI Versions, below. If you are certain that no previous GUI software has been installed, you may skip down to section 5.3, Install New CCR GUI.

5.2.2. Upgrade Existing CCR GUI

To eliminate any chance for errors, it is strongly recommended that any older versions be uninstalled using the instructions in Section 5.2.3, Instructions to Uninstall Previous CCR GUI Versions, below.

5.2.3. Instructions to Uninstall Previous CCR GUI Versions

1. From the Windows 7 Start menu, select Control Panel, then Programs and Features (in previous versions of Windows, this was called Add or Remove Programs).

The Uninstall or change a program dialog appears:

Figure 1: Programs and Features, Uninstall or Change a Program

Uninstall or change a program

To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.

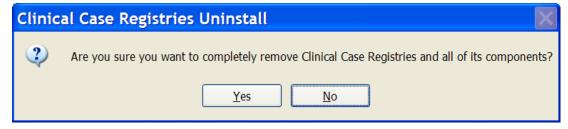
ame 📤 🔻	Publisher	▼ Installed ▼ Size	-	Version
ActivClient x64	ActivIdentity	5/23/2014	33.8 MB	6.2
Adobe Flash Player 16 ActiveX	Adobe Systems Incorporated	2/26/2015	16.7 MB	16.0.0.305
Adobe Flash Player 16 NPAPI	Adobe Systems Incorporated	2/26/2015	17.2 MB	16.0.0.305
Adobe Reader XI (11.0.10)	Adobe Systems Incorporated	3/2/2015	183 MB	11.0.10
Apple Application Support	Apple Inc.	5/9/2014	64.0 MB	2.3.6
Attachmate Reflection Suite for X 14.0.6029	Attachmate (VPA: 099185)	6/13/2013	119 MB	14.0.6029
AutomatedQA AQtime 7 Standard for Embarcadero RAD S	AutomatedQA Corp.	5/2/2014	211 MB	7.0.307.86
Borland Developer Studio 2006	Borland Software Corporation	4/2/2014	645 MB	10.0.2
Borland Developer Studio 2006 Runtime Redistributables	Borland Software Corporation	4/2/2014	1.23 MB	1.00.0000
CA Single Sign-On Full Production	CA, Inc.	3/23/2014	149 MB	12.1.0
	Microsoft Corporation	6/13/2013	445 KB	2.1.0.2
Cisco AnyConnect Secure Mobility Client	Cisco Systems, Inc.	9/10/2014	5.85 MB	3.1.04063
Cisco AnyConnect Start Before Login Module	Cisco Systems, Inc.	9/10/2014	560 KB	3.1.04063
Cisco IP Communicator	Cisco Systems, Inc.	3/21/2014	107 MB	8.6.2.0
Cisco Jabber Video for TelePresence	Cisco Systems, Inc.	5/9/2014	19.8 MB	4.5.7.16762
Cisco NAC Agent	Cisco Systems, Inc.	9/10/2014		4.9.4.3
Cisco WebEx Meetings	Cisco WebEx LLC	1/14/2015		
Citrix Receiver (Enterprise)	Citrix Systems, Inc.	4/10/2014		13.4.200.11
Clinical Case Registries 1.5*24	VA Office of Enterprise Development	2/27/2015	15.7 MB	

2. Look for any entries that include Clinical Case Registries 1.5* (or simply 1.5*) on the program list. If neither of these appears on the program list, skip to Step 9 below.

NOTE: Releases of the GUI up until 1/13/2010 were shown simply as "1.5.xx" on the program list; following installation of the 1/13/2010 version, it will correctly display on the list as "Clinical Case Registries 1.5.xx."

- 3. Select Clinical Case Registries from the list and click the Uninstall button.
- 4. If prompted, click the **Next** button.
- 5. You will likely see a pop-up, asking you to confirm removal:

Figure 2: Clinical Case Registries Uninstall Pop-Up



Confirm the uninstall action by clicking the Yes or OK button.

- 6. Confirm deletion of read-only files by clicking the Yes button.
- 7. Confirm deletion of shared files by clicking the **Yes** button.
- 8. Wait until the Uninstall Wizard completes the removal and then click the **Finish** button.

- 9. Look for **Hepatitis C Local Registry** on the Uninstall or change a program list. If this does not appear on the program list, skip to Step 13 below.
- 10. Select **Hepatitis** C **Local Registry** from the list and click the **Uninstall** button.
- 11. Confirm the uninstall action by clicking the **Yes** or **OK** button.
- 12. Wait until the Uninstall Wizard completes the removal and click the **OK** button.
- 13. Close the Programs and Features, Uninstall or change a program window.

5.3. Install New CCR GUI

Download (see Section 3.5, File Retrieval, above) and install the new GUI using the instructions below.

- 1. Download and unzip the ROR1 5P25GUI.ZIP into a temporary directory.
- 2. Open the temporary directory and run (double-click) **CCRSetup.exe** to begin the installation.
- 3. Wait until the setup wizard prepares the setup procedure. A welcome message displays:

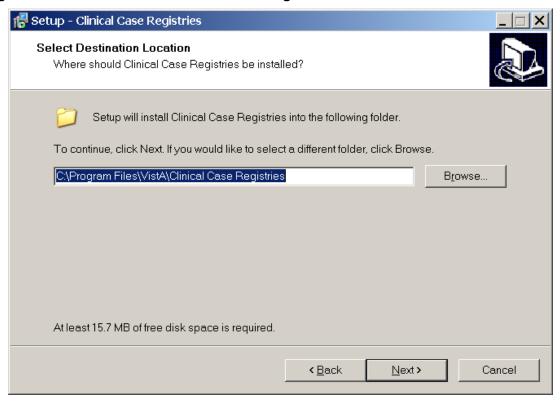
Figure 3: CCR Setup Wizard Welcome Message



4. Click **Next** to continue the installation.

The Select Destination Location dialog displays:

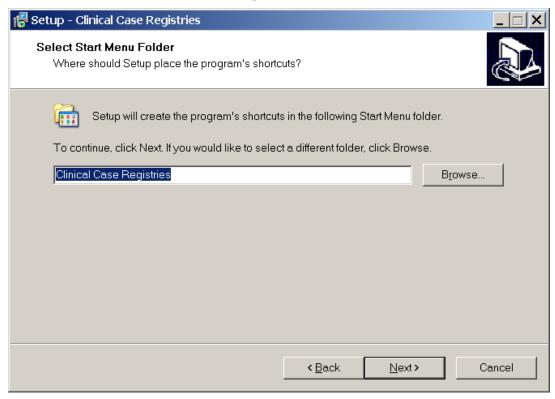
Figure 4: Select Destination Location Dialog Box



- 5. Select the directory in which to install the CCR GUI. We recommend that you accept the default directory: C:\Program Files\VistA\Clinical Case Registries\.
 - To select a different location, click **Browse...** and select the desired directory.
- 6. Click **Next** to continue the installation.

The Select Start Menu Folder dialog displays:

Figure 5: Select Start Menu Folder Dialog Box



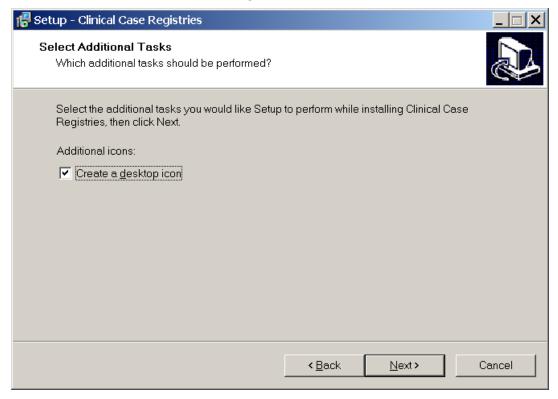
7. Select the Start Menu Folder. We recommend that you accept the default directory: Clinical Case Registries.

To select a different location, click **Browse...** and select the directory.

8. Click **Next** to continue the installation.

The Select Additional Tasks dialog appears:

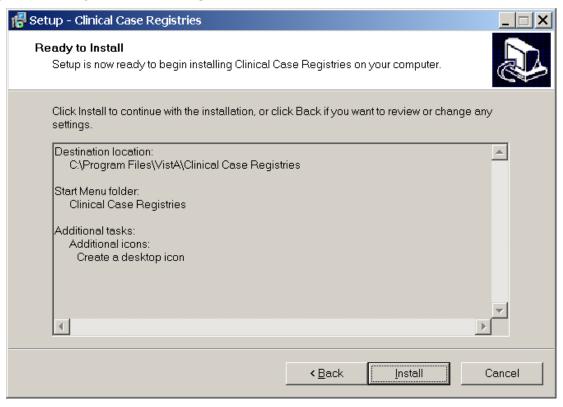
Figure 6: Select Additional Tasks Dialog Box



- 9. If you want a desktop icon, leave the checkbox checked; otherwise, clear the checkbox.
- 10. Click **Next** to continue the installation.

The Ready to Install dialog displays:

Figure 7: Ready to Install Dialog Box



11. Review the installation settings and click **Install** to proceed.

The Wizard finishes the installation and a confirmation screen displays:

Figure 8: CCR Finish Installation Message



12. Click Finish.

If you installed the CCR GUI on a file server (recommended), continue to Section 5.4, Continue Installing New CCR GUI on File Server, below.

If you installed the CCR GUI on user workstations (not recommended), skip down to Section 5.5, Configure CCR Desktop Application Parameters.

5.4. Continue Installing New CCR GUI on File Server

If you installed the CCR GUI on a file server using the instructions in Section 5.3, Install New CCR GUI, then continue the installation using the instructions below.

NOTE: If you have previously set up the CPRS Tools menu (as for a previous version of CCR), you should not have to perform this step and installation of the CCR GUI is completed.

13. Add the corresponding item to the CPRS Tool menu using the CPRS GUI Tool Menu Items [ORW TOOL MENU ITEMS] option.

It is recommended that you add the item at "User" level.

If you used the default directory for the installation, the "Name=Command" parameter should look like this:

```
Clinical Case Registries="C:\Program Files\VistA\Clinical Case
Registries\ClinicalCaseRegistries.exe" /S="{Server IP Address}" /P={RPC Broker
Port}
```

Below is a typical configuration example:

For more details, please refer to the GUI Tool Menu Items section of the Computerized Patient Record System (CPRS) v1.0 Setup Guide on the VDL: http://www.va.gov/vdl/application.asp?appid=61.

NOTE: You can also use other command-line parameters described in Section 5.6, CCR Command Line Switches, below to further customize the menu items (limit access to a single registry, disable CCOW, etc.).

5.5. Configure CCR Desktop Application Parameters

NOTE: Follow these instructions <u>only</u> if you elected to install the GUI on user workstations (not recommended). If you installed the CCR GUI on a file server (recommended), skip this section.

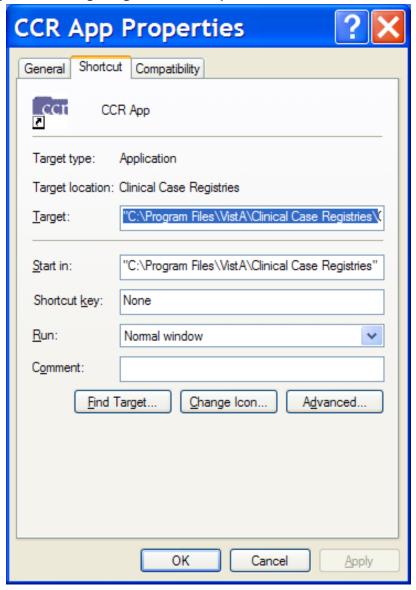
There are two ways to configure the GUI for those users who are coordinators of both Hepatitis C and HIV registries:

- 1. **Single shortcut:** This is the default. A single shortcut is created on the desktop. When the GUI is launched (or when **File, Open** is selected from the menu), the user selects the desired registry from the list.
- 2. **Separate shortcuts:** Two separate shortcuts are created, one for the Hepatitis C registry and one for the HIV registry. A command-line switch in each shortcut allows access only to a single registry. As a result, the registry selection dialog box is not

displayed, and the corresponding registry is opened automatically. This can be accomplished by adding the /R parameter after the executable name in the Target field of the shortcut.

For example:

Figure 9: Configuring CCR Desktop Parameters



The **Target** field should read:

"C:\Program Files\VistA\Clinical Case Registries\ClinicalCaseRegistries.exe" /R="VA HEPC"

5.6. CCR Command Line Switches

You can get a list of command-line "switches" supported by the CCR GUI by running the application with the /? or /h parameter.

For example:

```
Start | Run | "C:\Program Files\VistA\Clinical Case
Registries\ClinicalCaseRegistries. exe" /?
```

NOTE: Notice the use of quotation marks around the "target" application name. These are required when using this method because the **C:\Program Files\VistA** directory is typically not in the *path* (the list of directories which the operating system searches for executable files).

Figure 10: CCR Command Line Switches

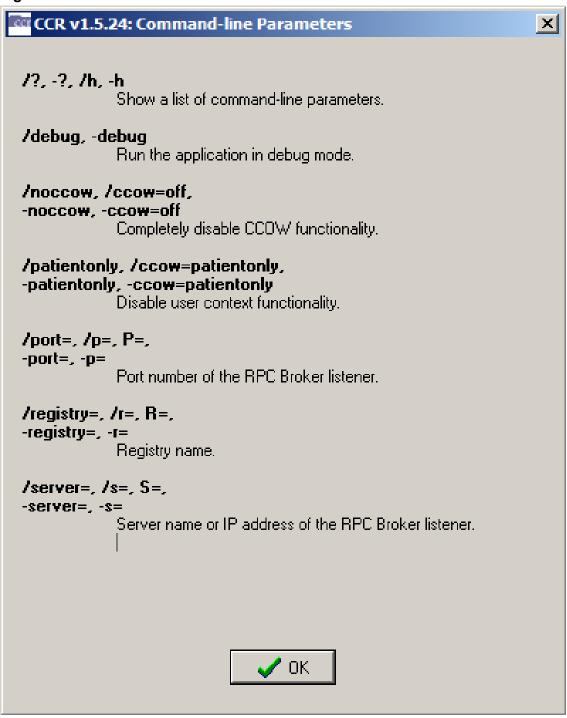


Table 11: CCR Command Line Switches

Switch	Description
/?, -?, /h, -h	Show a list of command-line parameters.
/debug, -debug	Run the application in debug mode.
/noccow, /ccow=off, -noccow, -ccow=off	Completely disable CCOW functionality.
/patientonly, /ccow=patientonly, -patientonly, -ccow=patientonly	Disable user context functionality.
/port=, /p=, P=, -port=, -p=	Port number of the Remote Procedure Call Broker (RPC) listener.
/registry=, /r=, R=, -registry=, -r=	Registry name.
/server=, /r=, S=, -server=, -s=	Server name or IP address of the RPC Broker listener.

6. Back-Out and Roll-Back Procedures

The back-out and roll-back procedures for the ICD-10 PTF Modifications project are complex since the software distribution is comprised of six patches, which are being released within a single Kernel Installation and Distribution System (KIDS) multi-package build (i.e. host file). Registration/Admission Discharge Transfer (ADT) patch DG*5.3*884 makes significant changes to VistA software components such as routines, data dictionaries, cross-references, and input templates. In addition, Clinical Case Registries (CCR) patch ROR*1.5*25 includes a revised Graphical User Interface (GUI) application.

The general strategy for back-out and roll-back procedures is to first contact the VA Help Desk at 1-888-596-4357 for support or assistance. Based on the severity of the issue reported, it may be necessary for both the application sustainment team and the ICD-10 PTF Modifications project team to be involved in providing direct support and technical solutions for a site's unique problem. This may also include issuance of an emergency patch to correct or remove software components and to perform restoration of data with a database clean-up process.

6.1. Back-Out Procedure

During installation, if the option to back up routines was run as directed in Section 3.8.1, Backup a Transport Global, then routines have the ability to be restored from the "backup" MailMan message that was generated. However, the KIDS installation process does not perform a save of other VistA components, such as data dictionary, cross-reference, and template changes, etc.

To uninstall the CCR GUI provided as a Windows application, please use the Programs and Features, Uninstall or change a program option of the Windows Control panel (see above Section 5.2.3, Instructions to Uninstall Previous CCR GUI Versions).

NOTE: After the CCR client application is uninstalled, you may need to re-install the previous version of the client software.

Prior to attempting back-out of any ICD-10 PTF Modifications software components, please contact the VA Help Desk at 1-888-596-4357 for support or assistance.

6.2. Roll-Back Procedure

The roll-back procedures for the ICD-10 PTF Modifications are complicated due to the numerous data dictionary changes, global updates, and data transmissions from VistA to offsite data stores. Patch DG*5.3*884 and any installed dependent patch changes that follow patch DG*5.3*884 need to be taken out in reverse of the order in which these patches were installed; routines and data dictionary modifications and populated data must also be rolled back in reverse order.

Please contact the VA Help Desk at 1-888-596-4357 for support or assistance regarding roll-back procedures. Based on the severity of the issue reported, it may be necessary for both the application sustainment team and the ICD-10 PTF Modifications project team to be involved in providing direct support and technical solutions for a site's unique problem. This

may also include issuance of an emergency patch to perform restoration of data with a database clean-up process.

A. APPENDIX A – Reminder Management Mail Group

A.1. Locate Reminder Management Mail Group

Using the FileMan option INQUIRE TO FILE ENTRIES, obtain the name of the REMINDER MANAGEMENT MAILGROUP defined in the CLINICAL REMINDERS PARAMETERS (#800) file entry. **NOTE:** This mail group name may not be the same on all VistA instances.

Example:

```
ALBANYTST: DEVESS>D P^DI
VA FileMan 22.0
Select OPTION: INQUIRE TO FILE ENTRIES
OUTPUT FROM WHAT FILE: CLINICAL REMINDER PARAMETERS//
Select CLINICAL REMINDER PARAMETERS SITE PARAMETERS: 1
        ...OK? Yes// (Yes)
ANOTHER ONE:
STANDARD CAPTIONED OUTPUT? Yes//
                                 (Yes)
Include COMPUTED fields: (N/Y/R/B): NO// - No record number (IEN), no
Computed
Fields
SITE PARAMETERS: 1
URL: HTTP://WWW.OQP.MED.VA.GOV/CPG/CPG.HTM
 WEB SITE TITLE: OQP Clinical Guidelines
DEFAULT REMINDER DISCLAIMER: The following disease screening, immunization
and patient education recommendations are offered as guidelines to assist in
your practice. These are only recommendations, not practice standards. The
appropriate utilization of these for your individual patient must be based on
clinical judgment and the patient's current status.
FORMATTED DISCLAIMER:
The following disease screening, immunization and patient education
recommendations are offered as quidelines to assist in your practice.
These are only recommendations, not practice standards. The appropriate
utilization of these for your individual patient must be based on clinical
judgment and the patient's current status.
  FULL SSN: NO
 REMINDER MANAGEMENT MAILGROUP: PXRM Management
 MAXIMUM NUMBER OF MH QUESTIONS: 35 MAXIMUM NUMBER OF INDEX ERRORS: 200
 INITIAL MST SYNCH COMP DATE: FEB 25, 2002@14:27:19
 INITIAL MST SYNCH UPDATE COUNT: 0
  DAILY MST SYNC COMP DATE: JUN 02, 2010@11:53:10
  DAILY MST SYNCH UPDATE COUNT: 0
  INITIAL MST SYNCH START DATE: FEB 25, 2002@14:27:19
```

A.2. Add Installer to Reminder Management Mail Group

Add yourself as a member of the mail group found in Step A.1 above. In this example, the name of the mail group is "PXRM Management."

Example:

```
ALBANYTST: DEVESS>D P^DI
VA FileMan 22.0
Select OPTION: ENTER OR EDIT FILE ENTRIES
INPUT TO WHAT FILE: CLINICAL REMINDER PARAMETERS// MAIL GROUP
                                        (315 entries)
EDIT WHICH FIELD: ALL//
Select MAIL GROUP NAME: PXRM Management <<Enter mail group name found in
REMINDER MANAGEMENT MAILGROUP (#3) field in CLINICAL REMINDER PARAMETERS file
(#800) (name of mail group may vary at each site).
NAME: PXRM Management//
Select MEMBER: DGTEST, PATONE// DGTEST, PATTWO <- range of member.
 Are you adding 'DGTEST, PATTWO' as a new MEMBER (the 9TH for this MAIL GROUP)?
No// Y (Yes)
 TYPE:
Select MEMBER: ^
Select MAIL GROUP NAME:
```

A.3. Remove Installer From Reminder Management Mail Group

Once the background job finishes rebuilding the Clinical Reminders Global Index and the results message(s) is received, remove yourself as a member of the mail group found in A.1 above. In this example, the name of the mail group is "PXRM Management."

Example:

```
ALBANYTST: DEVESS>D P^DT
VA FileMan 22.0
Select OPTION: ENTER OR EDIT FILE ENTRIES
INPUT TO WHAT FILE: MAIL GROUP // MAIL GROUP (315 entries)
EDIT WHICH FIELD: ALL//
Select MAIL GROUP NAME: PXRM Management < Enter mail group name found in
REMINDER MANAGEMENT MAILGROUP (#3) field in CLINICAL REMINDER PARAMETERS file
(#800) (name of mail group may vary at each site).
NAME: PXRM Management//
Select MEMBER: DGTEST, PATONE// DGTEST, PATTWO <<Enter your name.
        ...OK? Yes//
                      (Yes)
 MEMBER: DGTEST, PATTWO// @ <<Enter '@' sign to delete member.
  SURE YOU WANT TO DELETE THE ENTIRE MEMBER? Y (Yes)
Select MEMBER: ^
Select MAIL GROUP NAME:
```

A.4. Clinical Reminders Mail Group Message – Index Rebuild Status (Example)

A.5. Clinical Reminders Mail Group Message – Entries Could Not Be Indexed (Example)

B. APPENDIX B - Captured Install

B.1. Load KIDS Distribution

```
Select OPTION NAME: Kernel Installation & Distribution System
          Edits and Distribution ...
          Utilities ...
          Installation ...
          Patch Monitor Main Menu ...
Select Kernel Installation & Distribution System Option: Installation
         Load a Distribution
   1
         Verify Checksums in Transport Global
         Print Transport Global
         Compare Transport Global to Current System
         Backup a Transport Global
         Install Package(s)
          Restart Install of Package(s)
          Unload a Distribution
Select Installation Option: Load a Distribution
Enter a Host File: /home/cheyl146/ICD 10 PTF MODIFICATIONS.KID
KIDS Distribution saved on Aug 20, 2015@17:16:54
Comment: DG*5.3*884,GMTS*2.7*111,IB*2*522,LR*5.2*442,ROR*1.5*25,OR*3*406
This Distribution contains Transport Globals for the following Package(s):
Build DG*5.3*884 has been loaded before, here is when:
      DG*5.3*884 Install Completed
                   was loaded on Jul 22, 2015@09:02:42
OK to continue with Load? NO// YES
Build GMTS*2.7*111 has been loaded before, here is when:
      GMTS*2.7*111 Install Completed
                    was loaded on Jul 22, 2015@09:02:44
OK to continue with Load? NO// YES
Build IB*2.0*522 has been loaded before, here is when:
     IB*2.0*522 Install Completed
                   was loaded on Jul 22, 2015@09:02:44
OK to continue with Load? NO// YES
Build LR*5.2*442 has been loaded before, here is when:
      LR*5.2*442 Install Completed
                   was loaded on Jul 22, 2015@09:02:44
OK to continue with Load? NO// YES
Build ROR*1.5*25 has been loaded before, here is when:
      ROR*1.5*25 Install Completed
                   was loaded on Jul 22, 2015@09:02:44
OK to continue with Load? NO// YES
Build OR*3.0*406 has been loaded before, here is when:
                 Install Completed
      OR*3.0*406
                   was loaded on Jul 22, 2015@09:02:44
OK to continue with Load? NO// YES
```

```
Distribution OK!
Want to Continue with Load? YES//
Loading Distribution...
Build DG*5.3*884 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES//
  DG*5.3*884
Will first run the Environment Check Routine, DG884P
>>> Check programmer variables...Successful
>>> Checking number of entries in some DRG files...
   No discrepancies found.
>>> Checking for 'REDACTED entry in DOMAIN (#4.2)...Successful
  GMTS*2.7*111
   IB*2.0*522
  LR*5.2*442
   ROR*1.5*25
   OR*3.0*406
Use INSTALL NAME: DG*5.3*884 to install this Distribution.
```

B.1.1. Captured Times

```
KIDS Distribution saved on Mar 17, 2015@17:45:21
This Distribution was loaded on Mar 17, 2015@17:52:33 with header of DG*5.3*884,GMTS*2.7*111,IB*2*522,LR*5.2*442,ROR*1.5*25,OR*3*406
```

B.2. Install KIDS Distribution

```
Load a Distribution
   2
            Verify Checksums in Transport Global
   3
            Print Transport Global
   4
            Compare Transport Global to Current System
   5
            Backup a Transport Global
    6
            Install Package(s)
            Restart Install of Package(s)
            Unload a Distribution
Select Installation Option: Install Package(s)
Select INSTALL NAME: DG*5.3*884
                                            8/20/15@17:23
      => \ \texttt{DG} \times 5.3 \times 884, \\ \texttt{GMTS} \times 2.7 \times 111, \\ \texttt{IB} \times 2 \times 522, \\ \texttt{LR} \times 5.2 \times 442, \\ \texttt{ROR} \times 1.5 \times 25, \\ \texttt{OR} \times 3 \times 406 \\ \end{aligned}; \\ \texttt{Crea}
This Distribution was loaded on Aug 20, 2015@17:23 with header of
   DG*5.3*884,GMTS*2.7*111,IB*2*522,LR*5.2*442,ROR*1.5*25,OR*3*406 ;Created on
Aug 20, 2015@17:16:54
   It consisted of the following Install(s):
                                                           LR*5.2*442 ROR*1.5*25
                    GMTS*2.7*111
      DG*5.3*884
                                         IB*2.0*522
     OR*3.0*406
Checking Install for Package DG*5.3*884
Will first run the Environment Check Routine, DG884P
>>> Check programmer variables...Successful
>>> Checking number of entries in some DRG files...
    No discrepancies found.
```

```
>>> Checking for 'REDACTED entry in DOMAIN (#4.2)...Successful
Install Questions for DG*5.3*884
Incoming Files:
             PTF (Partial Definition)
Note: You already have the 'PTF' File.
   45.64
             PTF AUSTIN ERROR CODES (including data)
Note: You already have the 'PTF AUSTIN ERROR CODES' File.
I will OVERWRITE your data with mine.
Checking Install for Package GMTS*2.7*111
Install Questions for GMTS*2.7*111
Checking Install for Package IB*2.0*522
Install Questions for IB*2.0*522
Checking Install for Package LR*5.2*442
Install Questions for LR*5.2*442
Checking Install for Package ROR*1.5*25
Install Questions for ROR*1.5*25
Checking Install for Package OR*3.0*406
Install Questions for OR*3.0*406
Want KIDS to INHIBIT LOGONs during the install? NO// YES
Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//
Enter options you wish to mark as 'Out Of Order': DG PTF BACKGROUND JOB
PΤ
F Background Job
Enter options you wish to mark as 'Out Of Order':
Enter protocols you wish to mark as 'Out Of Order':
Delay Install (Minutes): (0-60): 0//
Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.
DEVICE: HOME//
               HOME (CRT)
```

```
Install Started for DG*5.3*884 :
              Aug 20, 2015@17:23:44
Build Distribution Date: Aug 20, 2015
Installing Routines:
              Aug 20, 2015@17:23:45
Running Pre-Install Routine: PRE^DG884P
>>> Start removal of PTF Operation Code "AO" cross-reference...
   "AO" removal completed.
>>> Checking number of entries in some DRG files...
   No discrepancies found.
>>> Creating new 'PTI' mail group...
     WARNING: Mail Group PTI already exists.
     Since the mail group exists, no action is required.
>>> Updating PTF125 entry in TRANSMISSION ROUTER (#407.7) file.
   Setting TRANSMIT=NO for (existing) receiving user@REDACTED.
   Creating new receiving user@REDACTED.
Installing Data Dictionaries:
              Aug 20, 2015@17:23:47
Installing Data:
              Aug 20, 2015@17:23:47
Installing PACKAGE COMPONENTS:
Installing INPUT TEMPLATE
Installing REMOTE PROCEDURE
              Aug 20, 2015@17:23:47
Running Post-Install Routine: POST^DG884P
>>> Rebuild PTF portion of the Clinical Reminders Global Index...
   The DG*5.3*884 patch has previously been installed.
    Skipping another rebuild of the PTF portion of the index.
>>> Re-compiling input templates...
Compiling DG701 Input Template of File 45......
'DGPTX71' ROUTINE FILED.
'DGPTX72' ROUTINE FILED..
'DGPTX7' ROUTINE FILED.....
'DGPTX73' ROUTINE FILED.....
'DGPTX74' ROUTINE FILED..
'DGPTX75' ROUTINE FILED.
'DGPTX76' ROUTINE FILED.
Compiling DG701-10D Input Template of File 45.....
'DGX71' ROUTINE FILED..
```

```
'DGX7' ROUTINE FILED.....
'DGX72' ROUTINE FILED.....
'DGX73' ROUTINE FILED.....
'DGX74' ROUTINE FILED.....
'DGX75' ROUTINE FILED.....
'DGX76' ROUTINE FILED.
'DGX77' ROUTINE FILED.
'DGX78' ROUTINE FILED.
Compiling DG401 Input Template of File 45..
'DGPTX4' ROUTINE FILED.....
'DGPTX41' ROUTINE FILED.
'DGPTX42' ROUTINE FILED.
Compiling DG401-10P Input Template of File 45..
'DGX4' ROUTINE FILED.....
'DGX41' ROUTINE FILED.....
'DGX43' ROUTINE FILED.
'DGX42' ROUTINE FILED.....
'DGX44' ROUTINE FILED.
'DGX45' ROUTINE FILED.
Compiling DG501F Input Template of File 45..
'DGX5F' ROUTINE FILED.....
'DGX5F1' ROUTINE FILED.....
'DGX5F2' ROUTINE FILED.....
'DGX5F3' ROUTINE FILED.
'DGX5F4' ROUTINE FILED.
Compiling DG501 Input Template of File 45..
'DGPTX5' ROUTINE FILED.....
'DGPTX52' ROUTINE FILED..
'DGPTX51' ROUTINE FILED......
'DGPTX53' ROUTINE FILED....
'DGPTX54' ROUTINE FILED.
'DGPTX55' ROUTINE FILED.
Compiling DG501-10D Input Template of File 45..
'DGX5' ROUTINE FILED.....
'DGX52' ROUTINE FILED..
'DGX51' ROUTINE FILED.....
'DGX54' ROUTINE FILED..
'DGX53' ROUTINE FILED.....
'DGX55' ROUTINE FILED.....
'DGX56' ROUTINE FILED.....
'DGX57' ROUTINE FILED.....
'DGX58' ROUTINE FILED....
'DGX59' ROUTINE FILED.
'DGX510' ROUTINE FILED.
Compiling DG501F-10D Input Template of File 45..
'DGX5FD' ROUTINE FILED.....
'DGX5FD1' ROUTINE FILED.....
'DGX5FD3' ROUTINE FILED..
'DGX5FD2' ROUTINE FILED.....
'DGX5FD4' ROUTINE FILED.....
```

```
'DGX5FD5' ROUTINE FILED.....
'DGX5FD6' ROUTINE FILED.....
'DGX5FD7' ROUTINE FILED.....
'DGX5FD8' ROUTINE FILED.
'DGX5FD9' ROUTINE FILED.
Compiling DG601-10P Input Template of File 45..
'DGX6' ROUTINE FILED.....
'DGX62' ROUTINE FILED.
'DGX61' ROUTINE FILED.....
'DGX63' ROUTINE FILED.....
'DGX64' ROUTINE FILED.
'DGX65' ROUTINE FILED.
   Re-compile completed.
Updating Routine file...
The following Routines were created during this install:
    DGPTXX
    DGPTXX1
    DGPTXX10
    DGPTXX11
    DGPTXX12
    DGPTXX13
    DGPTXX14
    DGPTXX15
    DGPTXX16
    DGPTXX2
    DGPTXX3
    DGPTXX4
    DGPTXX5
    DGPTXX6
    DGPTXX7
    DGPTXX8
    DGPTXX9
    DGX5
    DGX51
    DGX510
    DGX52
    DGX53
    DGX54
    DGX55
    DGX56
    DGX57
    DGX58
    DGX59
    DGX7
    DGX71
    DGX72
    DGX73
    DGX74
    DGX75
    DGX76
    DGX77
    DGX78
    DGX5FD
    DGX5FD1
    DGX5FD2
    DGX5FD3
    DGX5FD4
```

```
DGX5FD5
     DGX5FD6
     DGX5FD7
    DGX5FD8
    DGX5FD9
    DGX4
     DGX41
     DGX42
     DGX43
     DGX44
    DGX45
    DGX6
    DGX61
    DGX62
    DGX63
    DGX64
     DGX65
Updating KIDS files...
DG*5.3*884 Installed.
              Aug 20, 2015@17:23:48
Not a production UCI
NO Install Message sent
Install Started for GMTS*2.7*111 :
               Aug 20, 2015@17:23:48
Build Distribution Date: Aug 20, 2015
Installing Routines:
              Aug 20, 2015@17:23:48
Updating Routine file...
Updating KIDS files...
GMTS*2.7*111 Installed.
               Aug 20, 2015@17:23:48
Not a production UCI
NO Install Message sent
Install Started for IB*2.0*522 :
              Aug 20, 2015@17:23:48
Build Distribution Date: Aug 20, 2015
Installing Routines:
               Aug 20, 2015@17:23:48
Updating Routine file...
Updating KIDS files...
IB*2.0*522 Installed.
              Aug 20, 2015@17:23:48
Not a production UCI
```

```
NO Install Message sent
Install Started for LR*5.2*442 :
              Aug 20, 2015@17:23:48
Build Distribution Date: Aug 20, 2015
Installing Routines:
               Aug 20, 2015@17:23:49
Updating Routine file...
Updating KIDS files...
LR*5.2*442 Installed.
              Aug 20, 2015@17:23:49
Not a production UCI
NO Install Message sent
Install Started for ROR*1.5*25 :
               Aug 20, 2015@17:23:49
Build Distribution Date: Aug 20, 2015
Installing Routines:
              Aug 20, 2015@17:23:49
Running Post-Install Routine: POST^RORP025
POST INSTALL START
Update to ROR METADATA <SUCCESSFUL>
POST INSTALL COMPLETE
Updating Routine file...
Updating KIDS files...
ROR*1.5*25 Installed.
              Aug 20, 2015@17:23:49
Not a production UCI
NO Install Message sent
Install Started for OR*3.0*406 :
               Aug 20, 2015@17:23:49
Build Distribution Date: Aug 20, 2015
Installing Routines:
              Aug 20, 2015@17:23:49
Running Post-Install Routine: POST^ORY406
This patch will establish a default value at the PACKAGE level
for the ORWRP TIME/OCC LIMITS INDV parameter.
These reports in OE/RR REPORT (#101.24) are affected:
ORRPW ADT ADM DC
```

```
ORRPW ADT DC DIAG
ORRPW ADT EXP
ORRPW ADT ICD PROC
ORRPW ADT ICD SURG
ORRPW DOD ADT EXP
ORRPW ADT ADM DC complete.
ORRPW ADT DC DIAG complete.
ORRPW ADT EXP complete.
ORRPW ADT ICD PROC complete.
ORRPW ADT ICD SURG complete.
ORRPW DOD ADT EXP complete.
Updating Routine file...
 Updating KIDS files...
 OR*3.0*406 Installed.
               Aug 20, 2015@17:23:49
Not a production UCI
Install Completed
```

B.2.1. Captured Times

```
Install Started for DG*5.3*884: Mar 17, 2015@17:53:11
OR*3.0*406 Installed: Mar 17, 2015@17:53:15
Install Completed.
```

C. APPENDIX C - Checksums

C.1. DG*5.3*884 Checksums

The second line of each of these routines will look like:

;;5.3;Registration;**[PATCH LIST]**;Aug 13, 1993;Build 19

The checksums below are new checksums, and can be checked with CHECK1[^]XTSUMBLD.

Table 12: DG*5.3*884 Checksums

Routine	Checksum s Before Patch	Checksum s After Patch	Patch List (2 nd Line)
DG884P	N/A	172982622	884
DGICDGT	93717009	98953906	850, 884
DGICP	26601934	28102080	850, 884
DGPT101	13245456	16555084	8,164,180,247,415,678,696,884
DGPT101P	4327695	14198290	164,678,664,884
DGPT401	8757458	22199810	164,729,884
DGPT501	11578445	15677318	64,164,529,729,884
DGPT501P	3510968	13121491	884
DGPT50DI	7758522	12005227	510,850,884
DGPT50MS	4605823	6178285	142,729,884
DGPT535	8073530	7151570	64,164,729,884
DGPT601	17005208	21745672	64,164,729,850,884
DGPT60PR	4857421	4921445	510,870,850,884
DGPT701	13785418	25074534	64,164,251,415,729,850,884
DGPT701P	2908139	17213050	164,415,884
DGPT702	2277722	12007365	884
DGPT70DI	12136680	18406929	510,850,884
DGPT70DX	3873659	4054092	510,850,884

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Routine	Checksum s Before Patch	Checksum s After Patch	Patch List (2 nd Line)
DGPTAE	14522606	19185351	58,415,884
DGPTAE01	9393836	10894380	58,342,466,664,867,884
DGPTAE02	19628803	26206444	8,22,39,114,176,251,247,270,446,418, 482,466,683,729,884
DGPTAE03	10987387	8625430	8,52,164,850,884
DGPTAE04	9147597	12240703	510,744,870,850,884
DGPTAEE	10892054	24445151	64,338,678,850,884
DGPTAEE1	21575685	39125544	338,565,678,729,664,884
DGPTAEE2	14351045	30765062	8,338,415,565,729,664,884
DGPTC1	26112849	29467995	37,413,643,701,850,905,884
DGPTC2	11527513	12393502	58,189,643,850,884
DGPTDDCR	88922399	172287843	478,862,884
DGPTDRG	50130642	52220100	60,441,510,559,599,606,669,729,850,884
DGPTF099	11108603	12766033	884
DGPTF09X	7765866	8106091	58,884
DGPTF1	34378858	35051519	69,114,195,397,342,415,565,664,884
DGPTF2	17166598	26229374	37,342,643,861,850,884
DGPTF4	30195949	30569279	114,115,397,510,517,478,683,775,850,884
DGPTF41	10056872	11239143	64,635,729,850,884
DGPTF5	6981494	6998580	669,701,744,868,850,884
DGPTFAPI	6968721	6178065	309,510,850,884
DGPTFD	19169268	23594019	60,441,510,785,850,884
DGPTFIC	52898785	57159054	510,559,599,669,704,744,832,850,884
DGPTFJC	63564376	64477474	158,510,517,590,636,635,701,729,785,850,884

Routine	Checksum s Before Patch	Checksum s After Patch	Patch List (2 nd Line)
DGPTFM	72739353	81427420	510,517,590,594,606,635,683,696,664,850,884
DGPTFM0	10244116	17632645	510,517,850,884
DGPTFM1	18916672	36433048	114,517,635,850,884
DGPTFM4	31864138	35748755	114,195,397,510,565,775,664,759,850,884
DGPTFM5	13820382	15479197	510,606,850,884
DGPTFM6	28907671	36495035	164,510,729,850,898,884
DGPTFM7	21219043	21631380	78,590,594,683,729,884
DGPTFMO	32031244	42799242	195,397,510,590,594,606,683,729,664,850,884
DGPTFQWK	21436549	26393553	517,594,635,729,850,884
DGPTFTR	24216608	55260983	37,415,530,601,614,645,787,850,884
DGPTFTR3	13488826	13787675	568,884
DGPTFUT	N/A	38258055	884
DGPTFUT1	N/A	3593858	884
DGPTFVC1	39436670	42593524	52,58,79,114,164,400,342,466,415,493, 512,510,544,629,817,850,884
DGPTFVC3	10783685	11851601	164,729,884
DGPTIC10	100685699	94542788	850,905,884
DGPTOD1	9627005	9059489	158,238,375,744,884
DGPTODC M	17786774	17949456	375,884
DGPTOLC2	25585897	35887229	164,510,559,599,729,850,884
DGPTR0	26425804	26801939	114,247,338,342,510,524,565,678,729,664,850,88
DGPTR2	22938579	31431930	183,338,423,510,636,729,850,884
DGPTR3	4042057	3570598	183,729,884

Routine	Checksum s Before Patch	Checksum s After Patch	Patch List (2 nd Line)
DGPTR4	20498105	21708537	338,423,415,510,565,645,729,664,850,884
DGPTRI0	26605957	27141499	850,884
DGPTRI1	37319384	45682125	850,884
DGPTRI2	26956533	35680960	850,884
DGPTRI3	26611263	26721345	850,884
DGPTRI4	32872225	69886418	850,884
DGPTRNU	N/A	55750657	884
DGPTRNU1	N/A	7245862	884
DGPTRPO	17649764	20840184	884
DGPTSCAN	23143464	25305178	29,64,114,189,729,850,884
DGPTSUDO	23608581	31462240	441,510,478,785,850,884
DGPTTS	17997399	24184788	26,61,164,510,850,884
DGPTTS1	23805966	28870180	26,64,418,510,478,850,884
DGPTTS2	14533867	22200737	549,478,884

C.2. **GMTS*2.7*111 Checksums**

The second line of each of these routines will look like:

;;2.7;Health Summary;**[PATCH LIST]**;Oct 20, 1995;Build 4

Table 13: GMTS*2.7*111 Checksums

Routine	Checksums Before Patch	Checksums After Patch	Patch List (2 nd Line)
GMTSDGA	11914941	16655517	28,49,71,101,111
GMTSDGC1	15467864	21632270	5,35,47,71,101,111
GMTSDGC2	7198971	8062721	28,49,71,101,111
GMTSDGP	12132145	14004206	28,49,60,71,101,111
GMTSPXU1	17119835	24643576	10,37,71,86,101,111

C.3. IB*2.0*522 Checksums

The second line of each of these routines will look like:

;;2.0;INTEGRATED BILLING;**[PATCH LIST]**;21-MAR-94;Build 1

Table 14: IB*2.0*522 Checksums

Routine	Checksu ms Before Patch	Checksu ms After Patch	Patch List (2 nd Line)
IBCD3	32514703	34628725	14,55,52,91,106,125,51,148,160,137, 210,245,260,405,384,516,522
IBCD4	18076054	14091278	14,80,106,160,309,276,347,522
IBCRBG	66489178	68718544	52,80,106,51,142,159,210,245,382,389,461,522
IBCSC4A	32672806	26406207	106,228,339,479,522
IBCSC4B	36503632	14226360	210,228,304,479,522
IBCSC4 D	75384760	76016238	55,62,91,106,124,51,210,403,400,461,516,522
IBCSC4E	45259248	48958417	8,106,121,124,210,266,403,479,522
IBCSC4F	26386041	34285009	106,403,400,522
IBCU7	111564056	113207672	62,52,106,125,51,137,210,245,228,260,348,371,432,4 47,488,461,516,522

C.4. LR*5.2*442 Checksums

The second line of each of these routines will look like:

;;5.2;LAB SERVICE;**[PATCH LIST]**;Sep 27, 1994;Build 1

Table 15: LR*5.2*442 Checksums

Routine	Checksums Before Patch	Checksums After Patch	Patch List (2 nd Line)
LRAPQAT1	5116733	5639030	201,315,422,442
LREPI3	50368609	50657708	132,175,260,281,320,315,421,442
LREPI5	7519412	9871956	281,315,421,442

C.5. OR*3.0*406 Checksums

The second line of each of these routines will look like:

;;3.0;ORDER ENTRY/RESULTS REPORTING;**[PATCH LIST]**;Dec 17, 1997;Build 1

The checksums below are new checksums, and can be checked with CHECK1[^]XTSUMBLD.

Table 16: OR*3.0*406 Checksums

Routine	Checksums Before Patch	Checksums After Patch	Patch List (2 nd Line)
ORY406	N/A	6519234	406

C.6. ROR*1.5*25 Checksums

The second line of each of these routines will look like:

;;1.5;CLINICAL CASE REGISTRIES;**[patch list]**;Feb 17, 2006;Build 17

Table 17: ROR*1.5*25 Checksums

Routine	Checksums Before Patch	Checksums After Patch	Patch List (2 nd Line)
RORHL081	53807054	53447433	19,25
RORP025	N/A	6132875	25
RORUPD09	11144111	11230376	18,25
RORUTL11	4209534	4346474	13,14,15,17,18,20,19,21,22,24,27,25
RORX013A	78520195	79404657	1,13,19,21,25
RORX015A	96662849	90387034	1,8,13,19,21,25
RORXU010	16438309	14122091	8,19,25

D. Appendix D – Acronyms and Definitions

Table 18: Acronyms and Definitions

Acronym	Definition
ADT	Registration, Enrollment, Eligibility, Admission, Discharge, and Transfer
AITC	Austin Information Technology Center
AP	Anatomic Pathology
CCOW	Clinical Context Object Workgroup: CCOW is an HL7 standard protocol designed to enable disparate applications to synchronize in real-time, and at the user-interface level. It is vendor independent and allows applications to present information at the desktop and/or portal level in a unified way. CCOW is the primary standard protocol in healthcare to facilitate a process called "Context Management." Context Management is the process of using particular "subjects" of interest (e.g., user, patient, clinical encounter, charge item, etc.) to 'virtually' link disparate applications so that the end-user sees them operate in a unified, cohesive way. Context Management can be utilized for both CCOW and non-CCOW compliant applications. The CCOW standard exists to facilitate a more robust, and near "plug-and-play" interoperability across disparate applications. Context Management is often combined with Single Sign-On applications in the healthcare environment, but the two are discrete functions. Single Sign On is the process that enables the secure access of disparate applications by a user through use of a single authenticated identifier and password.
CCR	Clinical Case Registries
DG	Registration Namespace
EPI	Emerging Pathogens Initiative
GMTS	Health Summary Namespace
GUI	Graphical User Interface
HS	Health Summary
IB	Integrated Billing
ICD-10	International Classification of Diseases, 10 th Revision
KIDS	Kernel Installation and Distribution System
LR	Lab Service (Laboratory) Namespace
OE/RR	Order Entry/Results Reporting
OR	Order Entry/Results Reporting Namespace
POA	Present on Admission
PTF	Patient Treatment File

Acronym	Definition
ROR	Clinical Case Registries Namespace
TBD	To Be Determined
VHA	Veterans Health Administration
VistA	Veterans Health Information Systems and Technology Architecture
VMP	VistA Maintenance Project