

# VistA Software Installation Cookbook

## MSM Version

December 26, 2001

### General:

Installation of the following software will provide the Crow Hospital with the ability to use much of the most recent VistA software functionality within the existing RPMS environment. This cookbook details software installation of infrastructure packages and several clinical packages. Part One brings the infrastructure packages (i.e. Kernel, MailMan, RPC Broker, HL7) to the required level to support CPRS, while also installing new packages (i.e. TIU, Visit Tracking, Problem List, Lexicon). The intent of Part One is to provide the site with the ability to begin mapping of the Pharmacy Data Management package in preparation for the CPRS installation.

Part Two completes the clinical package and patch installation giving the site enhanced Radiology, Inpatient Pharmacy, Outpatient Pharmacy, OE/RR, National Drug File, Dietetics, and Laboratory functionality. Several of these packages require additional configuration before being utilized and the user is referred to the nationally distributed documentation for each package where relevant.

This cookbook details the installation and/or modification of approximately 30 VistA software packages. To minimize the amount of effort involved in the installation of the approximately 600 patches, where practical, package patches have been aggregated using a KIDS patch aggregation tool.

### Installation Order:

#### Part One

- Kernel
  - Modifications
    - Kernel System Parameters (8989.3) – If the installation system is an MSM environment, ensure that the value of the DEFAULT AUTO SIGN-ON field is set to **Disabled**.
    - Routine %ZTM5/ZTM5 – fixed reference to TM-DELAY pointing to incorrect file.
      - Load ztm5.rsa
      - Save as %ZTM5 in the MGR account
    - Device File – verify that the NULL DEVICE is configured correctly. Entry should either be named NULL DEVICE or have a MNEMONIC of NULL DEVICE.
  - Install the following
    - Load and install the builds in xu\_pg\_1.KID.
      - These builds will create dummy entries in Package File.
      - Use INSTALL NAME: XU\*8.0\*2 to install this Distribution.
    - XU\*8.0\*106 seq 127 – Person Class File Update

- Load build from file XU-8\_SEQ-127\_PAT-106.kid
  - Install Patch using installation name XU\*8.0\*106.
  - Run D MANUAL^XUINPCH2 to convert the remaining entries.
- Load and install the builds in A4A7\_PATCHES.KID. Includes patches 7, 9, 10 and 11. Use the installation name: A4A7\*1.01\*7. Patch 11 will create a dummy entry and will not perform the deletion of the true patch.
    - Run D ^A4A7CHK to check for linkage problems between files 3-16-200.
    - Run D ^A4A7B to examine routines, screens, templates, and data dictionaries for references to files 3, 6, 16, and 20.
      - Use the A4A7B1 routine to output results.
  - XU\*8.0\*134 SEQ 128 – New Person Name Standardization
    - Load build from file XU-8\_SEQ-128\_PAT-134.kid
    - Install patch using the installation name XU\*8.0\*134.
    - When post-init is completed, execute the PRINT^XLFNAME api to review the conversion outcome.
    - Use the ‘Editing and Existing User’ option to fix any problems.
  - XU\*8.0\*152 SEQ 133 – ASIG CROSS-REFERENCE ON FILE 20
    - Load build from file XU-8\_SEQ-133\_PAT-152.KID file.
    - Install using XU\*8.0\*152 as the installation name.
  - XU\*8.0\*158 SEQ 135 – Changes input transform for File 200 Signature Block
    - Load build from file XU-8\_SEQ-135-PAT-158.kid.
    - Install using the XU\*8.0\*158 installation name.
  - XU\*8.0\*165 SEQ 139 – allows CPRS Foreign Views – \*\*IHS 1005
    - Install IH\_MOD\_PATCH\_165\_MOD.KID build using the IH MOD PATCH XU\*8.0\*165 installation name.
  - XU\*8.0\*159 SEQ 141
    - Load build from file XU-8\_SEQ-141\_PAT-159.kid
    - Install patch using the XU\*8.0\*159 installation name.

This patch contains a fix to patch XU\*8\*106's post-init process, MANUAL^XUINPCH2. This process deals with the manual assigning of new person class entries to users that were not re-mapped automatically.

In this fix 'Terminated Users' will be automatically processed adding the current date to the Person Class Expiration Date if that field is current non-existent.

After installation the site will need to:

```
>D MANUAL^XUINPCH2
```

to process their remaining Person Class entries utilizing the new fixes.

- XU\*8.0\*170 SEQ 148
  - Load build from file XU-8\_SEQ-148\_PAT-170.kid
  - Place TaskMan in a Wait state.
  - Stop background tasks.
  - Make a backup of the ZU routine.
  - Install patch using the XU\*8.0\*170 installation name by entering "D ^XPDKRN" at the program prompt.
  - **Answer NO to the rename ZUONT prompt on MSM systems**

This routine will rename the correct routine to ZU for you.

```
Rename ZUONT to ZU, OK? No// >>>>Cache sites answer YES
>>>>DSM sites answer NO
>>>>MSM sites answer NO
```

- Remove TaskMan from Wait state.
- The following patches are part of the xu\_pg\_2.kid mega build.
  - XU\*8.0\*150 SEQ 149 - Broker Division support – REQUIRES XU\*8.0\*134 - #
  - XU\*8.0\*178 SEQ 150 - KIDS - Backup Message Subject Too Long - #
  - XU\*8.0\*149 SEQ 151 - No Access Allowed For This User \*\*IHS 1005 - #
  - XU\*8.0\*176 SEQ 152 – XU\_8\_176\_MOD.KID. DD for File 200 and check for OR\*3.0\*90 have been removed.
  - Install patch using installation name XU\*8.0\*150.
    - Execute D FIX^XLFNP176
  - End Mega Build
- The following patches are part of the xu\_pg\_3.kid mega build.
  - Use XU\*8.0\*154 as the installation name.
  - XU\*8.0\*154 SEQ 153 - Illegal Number Error \*\*IHS 1005 - #
  - XU\*8.0\*181 SEQ 154 - API for obtaining the last entered patch - #
  - XU\*8.0\*182 SEQ 155 - KIDS Build Component for RPC – CRC32 - #
  - End Mega Build
- XU\*8.0\*175 SEQ 156 - Set user for STARTUP tasks
  - Stop TaskMan
  - Load build file XU-8\_SEQ-156\_PAT-175.KID.
  - Install build using XU\*8.0\*175 as the installation name.

8. After installing this patch,  
 Cache Sites - you don't need to move anything, skip this step.  
 DSM/MSM sites - you need to one move several routines from  
 the production account to each manager account:

```
ZTMO
ZTMS2
ZTMS3
```

9. And in the manager account, (OpenM sites remain in VAH)  
 All sites:  
 DO RELOAD^ZTMGRSET  
 Select the System

Patch number to load: 175

- Restart TaskMan
- The following patches are part of the xu\_pg\_4.kid mega build.
  - XU\*8.0\*148 SEQ 157 - Mail Msg/Group removal -#
  - XU\*8.0\*171 SEQ 158 - ADD DELSTAT API FOR ALERTS - #
  - XU\*8.0\*177 SEQ 159 - Modified XQCS for handling multiple contexts - #
  - XU\*8.0\*179 SEQ 160 - HL7 to FM trailing zero fix - #
  - XU\*8.0\*185 SEQ 161 - Adding KIDs notification - #
  - XU\*8.0\*132 SEQ 162 - EDI/MRA Person Class fix – \*\*IHS 1005 - #
  - XU\*8.0\*183 SEQ 163 - RDV proper setup of DUZ - #
  - XU\*8.0\*188 SEQ 164 - Fix to XU\*8.0\*177 - #
  - Install using the XU\*8.0\*148 installation name.
  - End Mega Build
- Broker – patched up to sequence 16.
  - Patches to install.
    - The following patches are part of the xwb\_pg\_1.kid mega build.
      - Stop the RPC Broker Server
      - XWB\*1.1\*12 SEQ 13 - Server to Server RPC's Remote Data Views support - #
      - XWB\*1.1\*18 SEQ 14 - XWB2HL7 fix - #
      - XWB\*1.1\*14 SEQ 15 – Informational Patch – source code - #
      - XWB\*1.1\*20 SEQ 16 - RDV proper setup of DUZ - #
      - Install using the XWB\*1.1\*12 installation name.
      - Restart the RPC Broker Server
      - End Mega Build
- MailMan
  - Review the options for message management on MailMan's 'Disk Space Management' menu.
  - Patches to Install
    - The following patches are part of the xm\_pg\_1.kid mega build.
      - Shutdown the Background filer
      - Stop TaskMan
      - Place option XMUSER out of order manually using Fileman and putting 'Loading MailMan patch XM\*7.1\*50' in the OUT OF ORDER MESSAGE field.
      - XM\*7.1\*68 SEQ 63 - Confuse remote address with fax - #
      - XM\*7.1\*70 SEQ 64 – Fix for patch 68 - #
      - XM\*7.1\*67 SEQ 65 – New Key – XM BROADCAST - #
      - XM\*7.1\*69 SEQ 66 - Don't Delete Arriving Message - #
      - Install using the XM\*7.1\*68 installation name.
      - End Mega Build
    - XM\*7.1\*50 SEQ 67 – Big Patch – xm\_71\_50.kid - review install docs
      - Disable Journaling of the ^XMBX global.
      - Ensure that the correct time zone is entered in file 4.3.

- Install patch
    - Answer YES to the MailBox and MailMan Site Parameters prompts.
  - Enable Journaling of the ^XMBX global.
  - Make local changes to the XMRPCTS1 routine if needed.
  - Enable the XMUSER option during the POST-INIT.
  - The following patches are part of the xm\_pg\_2.kid mega build.
    - XM\*7.1\*71 SEQ 68 - Integrate POP3 into MailMan - #
    - XM\*7.1\*72 SEQ 69 - Refresh Full Screen Display - #
    - XM\*7.1\*76 SEQ 70 - Edit Site Parameters Option - #
    - XM\*7.1\*73 SEQ 71 - Fix \$\$CONVERT function - #
    - XM\*7.1\*74 SEQ 72 - Fix Global Checker - #
    - Use the XM\*7.1\*71 installation name to install
    - End Mega Build
  - Start TaskMan.
  - Start the background filer
  - Schedule menu rebuild.
- Ensure that all HL7 logical links, incoming and outgoing filers and the link manager are running.

□ Authorization/Subscription Utility

- Any needed, place the ^USR global on a specific disk drive.
- Install Build in file ASU1\_0.kid
- Patches to Install
  - The following patches are part of the usr\_pg\_1.kid mega build:
    - USR\*1\*1 SEQ 1 - Broken Subclass Pointers - #
    - USR\*1\*2 SEQ 2 – Terminated Users - #
    - USR\*1\*3 SEQ 3 – Remove TIU Dependencies - #
    - USR\*1\*4 SEQ 4 – User Class Show Option - #
    - USR\*1\*5 SEQ 5 – Eliminate Multiple Prompts - #
    - USR\*1\*6 SEQ 6 – Redundant Class Membership - #
    - USR\*1\*7 SEQ 7 – Expanding of Class Trees - #
    - USR\*1\*8 SEQ 8 – ASU – Users with the Same Name - #
    - USR\*1\*9 SEQ 9 – Missing Signature Block Printed Name - #
    - USR\*1\*10 SEQ 10 – Undefined when removing a user - #
    - USR\*1\*11 SEQ 11 – Make ACTIVE a required field - #

After the install has completed use the VERIFY FIELDS action on the FileMan utility menu to find any entries in file #8930 where the ACTIVE field is null. If any are found, then use the FileMan edit action to enter a value.

- USR\*1\*12 SEQ 12 – Do not allow Expiration Date < Effective Date - #
- With the change to the input transform it is advisable to perform a VA FileMan verify of the .04 field on the ^USR(8930.3) global. It would be advisable to change the date on any entries discovered.
- USR\*1\*13 SEQ 13 – Correct Effective Date and Expiration Date - #
  - USR\*1\*14 SEQ 14 – Correct undefined variable USRCHNG - #

- USR\*1\*16 SEQ 15 – Inactive class, stack overflow, & alphabetize class list - #
  - USR\*1\*17 SEQ 16 – Multiple names selected & protocol allows editing to inactive class - #
  - USR\*1\*18 SEQ 17 – ASU expanding class causes error - #
  - Use the USR\*1.0\*1 installation name to install.
  - End Mega Build
- CIA Utilities/Xtensible Editor.
    - Install KIDS Build – CIAU\_1\_0.KID
      - Use the CIA Utilites 1.0 installation name to install.
    - Install KIDS Build – CIAX\_2\_8.KID
      - Use the XTENSIBLE EDITOR 2.8 installation name to install.
  - Electronic Data Dictionary.
    - Load routine set from AAHEDD.RSA
  - FileMan
    - Make an entry in the Package file for FileMan version 21.0 to indicate that patch ‘25 SEQ# 0’ has been installed.
  - GuiMail
    - Install build in the CWMA\_GuiMail\_V2\_1.KID file.
    - Use the CW GUIMail 2.1 installation name to install.
  - Visit Tracking
    - Load and install the Visit Tracking Fix in file ih\_cia\_vsit\_fix\_v1\_0.kid using IH CIA VSIT FIX 1.0 as the installation name. This build removes the VSIT prefix from the PCE entry in the Package File.
    - Installation
      - Custom build – ih\_visit\_package\_v2\_t2.kid
        - Make an entry in the Package file with the following values:
          - Package Name: AUTOMATED INFO COLLECTION SYS
          - Prefix: IBD
          - Current Version: 2.1
        - Load and install the Visit Tracking package in file ih\_visit\_package\_v2\_t2.kid using IH VISIT TRACKING 2.0 as the installation name.
          - Permission to redefine field 15001/15003 given by Lori Butcher.
  - Integrated Billing v2.0
    - Load PRCAFN routine in PRCAFN.RSA
    - If needed, place the ^IBT global on a specific drive.
    - Set global nodes:
      - S ^DIC(409.71,0,”GL”)=”^SD(409.71,”
      - S ^SD(409.71,0)=”AMBULATORY PROCEDURE^409.71PI^0^0”

- Load custom build (IB2\_0\_Modified\_package\_checks.rtn) with checks for MAS version and PRC version removed and the DD for File 2 removed.
    - Run D ^IBINIT.
    - Load the build in file ih\_ib2\_0\_insurancefield.kid and install using 'IH INSURANCE TYPE MULTIPLE 1.0' as the installation name. This will update the DD of File 2 with the new Insurance Type field definition.
    - Using the Import/Export Utility [IBDF IMPORT/EXPORT UTILITY] found on the 'Encounter Form IRM Options' menu, select the RI action and install the templates in the IBDEINIT namespace.
  - Refer to the Integrated Billing Installation Guide for a list of routines that can be deleted.
- Problem List v2.0
- If needed, place ^GMP global on a specific drive. Set ^GMP(757,0) global equal to 'MAJOR CONCEPT MAP^757P^0^0'.
  - Load PROB2\_0.RTN routine set.
  - Run D ^GMPLINIT.
  - Install patches:
    - The following patches are part of the GMPL\_pg\_1.kid mega build.
      - GMPL\*2.0\*2 SEQ 1 – PGMOV error in report – GMPL\_2\_2.KID
      - GMPL\*2.0\*1 SEQ 2 – Form Number in Footer – GMPL\_2\_1.KID
      - Use GMPL\*2.0\*2 as the installation name.
      - End Mega Build
    - GMPL\*2.0\*3 SEQ 3 – ALLOC Error/Duplicate
      - Restore routines from gmpl\_2\_patch\_3.rsa
      - Run D ^GMP1INIT
      - You will receive checksum errors. Answer yes to the 'Do you want to continue' prompt.
    - The following patches are part of the GMPL\_pg\_2.kid mega build.
      - GMPL\*2.0\*4 SEQ 4– Fixes Encounter Form - #
      - GMPL\*2.0\*5 SEQ 5 – Fix UNDEFs in GMPLPR - #
      - GMPL\*2.0\*6 SEQ 6 – Fix PCE Interface - #
      - GMPL\*2.0\*8 SEQ 7 – Stop duplicate problem - #
      - GMPL\*2.0\*7 SEQ 8 – This patch is a part of the Lexicon Utility.
      - Use GMPL\*2.0\*4 as the installation name.
      - End Mega Build
- Lexicon v2.0
- Install the build contained in the IH\_LEX\_F757\_03.KID file using IH LEX F757 1.0 as the installation name.
  - If needed, place the ^LEX and ^LEXT globals on specific drives.
  - Kill ^LEX to remove any previous versions of the global.
  - Load and restore the ^LEX global from lex\_2\_gbl.zip.
  - Load the Lexicon Utility from the LEX\_2\_0.KID file.
  - Install build using Lexicon Utility 2.0 as the installation name.

- Load and install fixes to the CPT/Lexicon interaction using the build in IH\_ICPT\_UPDATE.KID. Use IH ICPT UPDATE 1.0T2 as the installation name.
- Install Patches:
  - The following patches are part of the LEX\_pg\_1.kid mega build.
    - LEX\*2.0\*2 SEQ 1
    - LEX\*2.0\*1 SEQ 2
    - LEX\*2.0\*3 SEQ 3
    - Load and install patch seqs # 1-3 in file LEX\_pg\_1.kid using LEX\*2.0\*2 as the installation name.
  - LEX\*2.0\*4 SEQ 4
    - Checks for the ^LEXT(757.2 and ^LEX(757.11 globals were commented out.
    - Kill ^LEXM global
    - Load and restore the ^LEXM global in the LEX2\_0P4.GBL file.
    - Load and install patch seq # 4 in file LEX\_2\_4\_MOD.kid using LEX\*2.0\*4 as the installation name.
  - LEX\*2.0\*5 SEQ 5
    - Load and install patch seq # 5 in file LEX\_2\_5.KID using LEX\*2.0\*5 as the installation name.
  - LEX\*2.0\*7 SEQ 6
    - Load and install patch seq # 6 in file LEX\_2\_7.KID using LEX\*2.0\*7 as the installation name.
  - LEX\*2.0\*6 SEQ 7
    - Kill ^LEXM global
    - Load and restore the ^LEXM global in the LEX2\_0P6.GBL file zipped inside of file LEX2\_0P6.zip.
    - Load and install patch seq # 7 in file LEX\_2\_6.KID using LEX\*2.0\*6 as the installation name.
  - LEX\*2.0\*8 SEQ 8
    - Checks for files 757.03 and 757.14 were removed.
    - Kill ^LEXM global
    - Load and restore the ^LEXM global in the LEX2\_0P8.GBL file.
    - Load and install patch seq # 8 in file LEX\_2\_8\_MOD.KID using LEX\*2.0\*8 as the installation name.
  - LEX\*2.0\*9 SEQ 9
    - Kill ^LEXM global
    - Load and restore the ^LEXM global in the LEX2\_0P9.GBL file.
    - Load and install patch seq # 9 in file lex-2\_seq-09\_pat-9.kid using LEX\*2.0\*9 as the installation name.
  - LEX\*2.0\*10 SEQ 10
    - Kill ^LEXM global
    - Load and restore the ^LEXM global in the LEX2\_0P10.GBL file.
    - Load and install patch seq # 10 in file lex-2\_seq-10\_pat-10.kid using LEX\*2.0\*10 as the installation name.
  - LEX\*2.0\*11 SEQ 11

- Load and install patch seq # 11 in file lex-2\_seq-11\_pat-11.kid using LEX\*2.0\*11 as the installation name.
- LEX\*2.0\*12 SEQ 12
  - Kill ^LEXM global
  - Load and restore the ^LEXM global in the LEX\_2\_p12.GBL file.
  - Load and install patch seq # 12 in file lex-2\_seq-12\_pat-12.kid using LEX\*2.0\*12 as the installation name.
- LEX\*2.0\*13 SEQ 13
  - Kill ^LEXM global
  - Load and restore the ^LEXM global in the LEX\_2\_p13.GBL file.
  - Load and install patch seq # 13 in file lex-2\_seq-13\_pat-13.kid using LEX\*2.0\*13 as the installation name.
- LEX\*2.0\*14 SEQ 14
  - Kill ^LEXM global
  - Load and restore the ^LEXM global in the LEX\_2\_p14.GBL file.
  - Load and install patch seq # 14 in file lex-2\_seq-14\_pat-14.kid using LEX\*2.0\*14 as the installation name.
- LEX\*2.0\*15 SEQ 15
  - Load and install patch seq # 15 in file lex-2\_seq-15\_pat-15.kid using LEX\*2.0\*15 as the installation name.
- LEX\*2.0\*16 SEQ 16
  - Kill ^LEXM global
  - Load and restore the ^LEXM global in the LEX\_2\_p16.GBL file.
  - Load and install patch seq # 16 in file lex-2\_seq-16\_pat-16.kid using LEX\*2.0\*16 as the installation name.
- LEX\*2.0\*17 SEQ 17
  - Kill ^LEXM global
  - Load and restore the ^LEXM global in the LEX\_2\_p17.GBL file.
  - Load and install patch seq # 17 in file lex-2\_seq-17\_pat-17.kid using LEX\*2.0\*17 as the installation name.
- .Kill the ^LEXM to save disk space.

□ Problem List v2.0

○ Install Patches:

- The following patches are part of the GMPL\_pg\_3.kid mega-build. The GMPL15P routine distributed in patches 15 and 23 was modified to check for a null value in the MODIFIED variable. The GMPLDUP2 routine distributed in patch 12 was modified to check for a null problem ien.
  - GMPL\*2.0\*9 SEQ 9 – Duplicate Problems – #
  - GMPL\*2.0\*11 SEQ 10 – Viewing selections - #
  - GMPL\*2.0\*10 SEQ 11 – CPRS interface - #
  - GMPL\*2.0\*13 SEQ 12 – Acute Problem - #
  - GMPL\*2.0\*14 SEQ 13 – New API for Problem - #
  - GMPL\*2.0\*15 SEQ 14 – API for Problem List Clinical Reminders - #
  - GMPL\*2.0\*12 SEQ 15 – Remove Duplicate Problem - #

- GMPL\*2.0\*16 SEQ 16 – Inconsistent Provider - #
  - GMPL\*2.0\*18 SEQ 17 – Add audit trail to Order Entry Problem List - #
  - GMPL\*2.0\*17 SEQ 18 – Editing Problem List - #
  - GMPL\*2.0\*19 SEQ 19 – New API variable - #
  - GMPL\*2.0\*21 SEQ 20 – Problem List Comment - #
  - GMPL\*2.0\*22 SEQ 21 – Add Lexicon Problem - #
  - GMPL\*2.0\*23 SEQ 22 – Modified Cross Reference - #
  - GMPL\*2.0\*20 SEQ 23 – Problem List Warning - #
  - Install patches using GMPL\*2.0\*9 as the installation name.
  - End Mega Build
- Automated Information Collection System
    - Set the current version for the PCE package in the Package File to 1.0.
    - Load build from AICS3\_0.KID.
    - Install build using Automated Info Collection SYS 3.0 as the installation name.
  - Install patch OR\*2.5\*51 in file OR\_25\_51.KID using OR\*2.5\*51 as the installation name.
  - Change prefix of Health Summary from HSUM to GMTS and enter 2.7 as the current version.
  - Load PXXDPT routine from pxxdpt.rsa. This routine is needed for TIU installation.
  - TIU v1.0
    - If needed, place the ^TIU global on a specific drive.
    - Installed build in TIU1\_0.kid using TEXT INTEGRATION UTILITES 1.0 as the installation name.
  - A TIU/PXAPI Resource device was created following the instructions found in the TIU Installation Guide.
    - D ^XUP
    - Select Option Name: XUDEVEDITRES      Resource Device Edit
    - Select Resource Device: TIU/PXAPI RESOURCE
    - Are you adding 'TIU/PXAPI RESOURCE' as a new Device? No// YES
      - DEVICE LOCATION OF TERMINAL: NA
      - DEVICE \$I: TIU/PXAPI RESOURCE
      - DEVICE VOLUME SET(CPU): <Enter>
      - DEVICE TYPE: RES    RESOURCES
    - Name: TIU/PXAPI RESOURCE//<Enter>
    - \$I: TIU/PXAPI RESOURCE// <Enter>
    - VOLUME SET(CPU): <Enter>
    - RESOURCE SLOTS: 1//10
  - Pharmacy Data Management v1.0
    - Load build found in PDM1\_0.kid
    - Install using PHARMACY DATA MANAGEMENT 1.0 as the installation name.
      - Answer No to the ADMINISTRATION SCHEDULE merge prompt.

- Answer No to the MEDICATION ROUTES merge prompt.
- Change prefix of Health Summary from GMTS back to HSUM.
- Installation of Part One is complete.

## Part Two

- Change prefix of Health Summary from HSUM to GMTS.
- Check the name of File 2. If it has been changed to PATIENT then changed it back to VA PATIENT.
- Enter 5.3 as the current version for the Registration (DG) package in the package file.
- Ensure that TaskMan is running.
- Load HL7 patch 66 (seq 57) in file HL-1p6\_SEQ-57\_PAT-66.kid.
  - Shutdown all logical links, incoming and outgoing filers and the link manager.
  - Install patch
  - Restart the links, filers and the link manager.
- Ensure that the HL7 links are running.
- Load and install the build in IH\_CIALEXP.KID. This will change the field pointed to in Files 9000011 and 125.12 from the ^GMP global to the ^LEX global.
- Dietetics v5.0
  - File: FH5\_0.RTN
  - Restore routines and run FHINIT.
  - Refer to the Dietetics v5.0 Installation Guide for additional instructions.
    - Answer YES to the ‘Shall I write over File Security Codes?’ prompt and for each successive prompt.
  - Delete all FHINI\* routines from the environment.
  - Define needed printers per the installation guide.
  - Install Patches:
    - Load and install the builds in FH\_pg\_1.kid using FH\*5\*1 as the installation name. This mega build contains patches seq #s 1-11. Sequence 10 (routine FHASMR1) is not available.
- Load and install the Clinic Stop DD update in file ih\_clinic\_stop\_update\_1\_0.kid using IH CLINIC STOP UPDATE 1.0 as the installation name.
- Add a stop code in the STOP CODE file (40.7) as follows:
  - Name: X\_RAY
  - Code: 105
  - Abbreviation: XRAY

- 
- Radiology v5.0
  - Load packages in ra\_45\_pg\_1.kid and install using RA\*4.5\*2 as the installation name. Answer Yes to the version prompts seen during loading and installation. This install will add stubs for patches 2 and 10. A post-init routine will run after patch 10 to make changes to file 78.7 for the Verified Date field to prepare for version 5.0 and make changes/additions to file 79.2.
  - Review the entries in the Imaging Type (79.2) file. There should be an entry for the following:
    - Cardiology Studies (Nuc Med)
      - Abbreviation - CARD
    - Nuclear Medicine
      - Abbreviation – NM
  - Backup the system.
  - Delete RA\* routines except for RAZ\*.
  - Sign on and ensure that your DUZ(2)="@".
  - Load the build contained in file rad5\_0cln.kid.
  - Load the build contained in file rad5\_0.kid
  - Refer to Installation Manual before performing the next step.
  - Ensure Radiology users are off the system.
  - Stop all tasks in the RA\* namespace.
  - Manually disable the RA SIGN-ON MSG option.
  - Ensure that TaskMan is running.
  - Install Radiology v5.0 using Radiology/Nuclear Medicine 5.0 as the installation name.
    - Mark the following options as out of order.
      - RA\*
      - -DI\*
    - Mark the following protocols as out of order.
      - RA\*
  - Assign the newly created RAD/NUC bulletins to appropriate mail groups. Refer to pages 19-22 of the Radiology Installation Guide.
  - Give the Radiology ADPAC access to at least one Imaging Location (Field#74 in File 200). The ADPAC should then use the Classification Enter/Edit [RA PNLCLASS] option to classify the remaining Radiology Package users. Without an assigned imaging location, a user will be unable to use the Radiology Package.
  - Using the Device Specifications for Imaging Locations [RA DEVICE] on the [RA SITEMANAGER] menu, assign output devices for each imaging location.
  - Assign the RA VERIFY security key to all staff responsible for verifying reports. Ensure that they also have electronic signature codes.
  - Ensure that the post-init process created the following protocols in the Protocol file (100)
    - RA CANCEL
    - RA EVSEND OR
    - RA EXAMINED
    - RA RECEIVE
    - RA REG

- RA RPT
  - RA SEND ORM
  - RA SEND ORU
- Load GMRCPOS1 routine from gmrcpos1.rsa. This routine is needed for the OE/RR conversion.
  - Set the CURRENT VERSION field of the Package file for entry CONSULT/REQUEST TRACKING to 2.5.
  - Set the CURRENT VERSION field of the Package file for entry GMRV to 4.0.
  - Load stubs\_pg\_1.kid. Contains several patches that are stubs only.
    - Install using LR\*5.2\*128 as the installation name. Continue to load packages even if version numbers do not match.
    - This build contains stubs for the following patches: LR\*5.2\*128, 121, 152, 201, 191, 208, 210; LA\*5.2\*27; DG\*5.3\*134,249,277,57; PSJ\*4.5\*42; GMRC\*2.5\*14; GMRV\*4.5\*1, 10; ICPT\*6.0\*6; PX\*1.0\*73, 74; HL\*1.6\*8,9,17,18,21; SD\*5.3\*131; IBD\*3.0\*10,12,1,9; YS\*5.01\*47; PX\*1.0\*45; GMTS\*2.7\*36; RMPR\*3.0\*45.
  - Load and install Radiology patch seq #s 1-24 in file ra\_pg\_1.kid using RA\*5.0\*1 as the installation name.
  - Load and install Pharmacy Data Management patches in file pss\_pg\_1.kid using PSS\*1.0\*2 as the installation name. This mega build contains patch sequence numbers 1-17 excluding CPRS and Info patches.
  - Pre-installation patch for CPRS 1.0.
    - Review the CPRSPRE.PDF file for instructions related to installation and post-installation procedures.
      - Ensure that the PDM manual mapping of drugs has been performed.
      - Ensure that the HL links are running.
    - Load and install Patch OR\*2.5\*49 found in file or\_25\_49.kid using OR\*2.5\*49 as the installation name.
    - Perform protocol conversion and database estimation as specified in CPRSPRE document.
  - Adverse Reaction Tracking v4.0
    - Load and install the KIDS build in allr4.kid using ADVERSE REACTION TRACKING 4.0 as the installation name.
  - Load routine in file vasite.rsa. This is a PIMS 5.3 VASITE file. Previous version should be saved as vasite.
  - Load and install the build in file tiu\_pg\_1.kid using TIU\*1.0\*6 as the installation name. This mega build contains patch seq numbers 1-7.

- Load and install the build in file tiu\_pg\_2.kid using TIU\*1.0\*4 as the installation name. This mega build contains patch seq number 8-23.
- Load and install Adverse Reaction Tracking patch seq #s 2-7 in file gmra\_pg\_1.kid using GMRA\*4.0\*4 as the installation name.
- Load and install Lab packages found in file lr\_pg\_1.kid using LR\*5.2\*187 as the installation name. The mega build contains LR\*5.2\*187 and LR\*5.2\*219.
- Restore routine in file ciazaltq.rsa. Execute the EN entry point by entering: D EN^CIAZALTQ. This routine will query the Kernel ALERT file (8992) for entries lacking a zero node and will prompt the user to delete the bad nodes. If the bad nodes are not removed prior to installing CPRS, the install will not run to completion.
- Install CPRS v1.0 found in file CPRS1\_0\_MOD.KID. This custom build has several of the pre-install checks commented out. The ORB3C1 pre-init routine was also modified to behave better if Kernel Alerts were found that lacked zero nodes.
  - Unschedule ORTASK PURGE.
  - Take users off of the system.
  - Shutdown TaskMan.
  - Disable journaling for the OR, OCXS, ORD, GMR, XTV, and PS globals.
  - If needed, place the ^OCXD and ^OCXS globals on specific drives.
  - Make a backup of PSO\*, GMRC\*, and OR\* routines then delete them.
  - Install CPRS v1.0 using CPRS 1.0 as the installation name. Take the default for any 'Install Questions'.
  - The installation prompts the installer to identify a recipient for the Order Checking Compile bulletins.
  - Refer to the POST-INSTALLATION section of the CPRS Installation Guide for procedures to be followed after installation.
  - Start journaling of the OR, OCXS, ORD, GMR, XTV, and PS globals.
  - Re-Start Taskman.
  - Bring users back on the system.
  - Check the status of the post-conversion by performing the following:
    - Outpatient Pharmacy – D ^PSOPOST1
    - OE/RR Order Conversion – D STATUS^OR3CONV1
- Create Lab Protocols using the 'Update CPRS with all Lab test parameters' option. Before this function is performed, the Laboratory Coordinator should review Files 69.9, 61, and 60 for accuracy.
- Perform the following procedure to define consults as a document type under TIU. Refer to TIU patch 4.
  - Execute the option: TIU DEFINE CONSULTS
  - Define consults as a DOCUMENT CLASS
- Perform the following to ensure that the electronic signature codes are correct for TIU documents. Refer to TIU patch 33.

- At the programmer prompt, enter D MAIN^TIUESFIX.
- Load and install Inpatient Pharmacy patch seq #s 1-8 in file psj\_pg\_1.kid using PSJ\*5.0\*4 as the installation name.
- Load and install OERR patch seq #s 1-9 in file or\_pg\_1.kid using OR\*3.0\*1 as the installation name.
- Load and install OERR patch seq #s 10-20 in file or\_pg\_2.kid using OR\*3.0\*22 as the installation name.
- Load and install TIU patch seq #s 24-36 in file tiu\_pg\_3.kid using TIU\*1.0\*37 as the installation name.
- Load and install Consults patch seq #s 1-6 in file gmrc\_pg\_1.kid using GMRC\*3.0\*1 as the installation name.
- Load and install TIU patch seq #s 37-49 in file tiu\_pg\_4.kid using TIU\*1.0\*40 as the installation name.
- Load and install TIU patch seq #s 50-63 in file tiu\_pg\_5.kid using TIU\*1.0\*43 as the installation name.
- Load and install OERR patch seq #s 21-31 (minus seq 30) in file or\_pg\_3.kid using OR\*3.0\*33 as the installation name.
- Load and install Outpatient Pharmacy patch seq #s 1-20 in file pso\_pg\_1.kid using PSO\*7.0\*1 as the installation name.
- Load and install Inpatient Pharmacy patch seq #s 9-19 in file psj\_pg\_2.kid using PSJ\*5.0\*13 as the installation name.
- Load and install Adverse Reaction Tracking patch seq #s 8-14 in file gmra\_pg\_2.kid using GMRA\*4.0\*8 as the installation name. Refer to patch 10 document regarding changes to the GMRADPT utility. There are routines in the APSP name space that reference the GMRAL array.
- National Drug File v4.0
  - All pharmacy user must be off the system
  - Disable journaling for ^PSNDF(50.6, ^PSNDF(50.64, ^PSNDF(50.67, ^PSNDF(50.68, and ^PS globals
  - Kill the old National Drug File global ^PSNDF.
  - Delete the PSN\* routine set.
  - Load the v4.0 global in file NDF4\_0\_gbl.zip.
  - Load the KIDS build from file NDF4.ZIP and install using PSN 4.0 as the installation name.
  - Answer YES to the 'Shall I write over your NATIONAL DRUG File?' prompt.
  - Enable journaling.
  - Assign the PSNMGR security key to the appropriate personnel.

- ❑ Load and install National Drug File patches in file psn\_pg\_1.kid using PSN\*4.0\*2 as the installation name. This mega build contains patch sequence #s 1-6.
- ❑ Kill ^PSPPI global and load global found in file ndf4p7.gbl.zip. Load and install patch NDF patch 7 found in file psn-4\_seq-7\_pat-7.kid using PSN\*4.0\*7 as the installation name.
- ❑ Load and install Inpatient Pharmacy patch seq #s 20-27 in file psj\_pg\_3.kid using PSJ\*5.0\*21 as the installation name.
- ❑ Load and install OERR patch seq #s 30-39 (minus 31) in file or\_pg\_4.kid using OR\*3.0\*34 as the installation name.
- ❑ Load and install Pharmacy Data Management patches seq #s 18-25 found in file pss\_pg\_2.kid using PSS\*1.0\*16 as the installation name.
- ❑ Load and install OERR patch seq #s 40-51 in file or\_pg\_5.kid using OR\*3.0\*45 as the installation name.
- ❑ Load and install National Drug file patch 8 (seq. 8) found in file ndf4p8.kid using PSN\*4.0\*8 as the installation name.
- ❑ Load and install National Drug file patch 9 (seq. 9) found in file ndf4p9.kid using PSN\*4.0\*9 as the installation name.
- ❑ Load and install National Drug File patch seq #s 10-12 in file psn\_pg\_2.kid using PSN\*4.0\*10 as the installation name.
- ❑ Load and install NDF patch 14 (seq 13) in file ndf4p14.kid using PSN\*4.0\*14 as the installation name.
- ❑ Load and install NDF patch 15 (seq 14) in file ndf4p15.kid using PSN\*4.0\*15 as the installation name.
- ❑ Kill ^PSPPI global and load global found in file ndf4p16.gbl.zip. Load and install NDF patch 16 (seq 15) in file psn-4\_seq-15\_pat-16.kid using PSN\*4.0\*16 as the installation name.
- ❑ Load and install NDF patch seq #s 16-19 in file psn\_pg\_3.kid using PSN\*4.0\*17 as the installation name.
- ❑ Load and install Pharmacy Data Management patch seq #s 26 – 34 in file pss\_pg\_3.kid using PSS\*1.0\*26 as the installation name.
- ❑ Load and install NDF patch seq #s 20-23 in file psn\_pg\_4.kid using PSN\*4.0\*23 as the installation name.

- ❑ Load and install NDF patch seq #s 24-27 in file psn\_pg\_5.kid using PSN\*4.0\*25 as the installation name.
- ❑ Kill ^PSPPI and load NDF global found in file ndf4p30\_gbl.zip. The last entry in the global is ^PSPPI(2858,5,33,0). Then load and install the KIDS build in file psn-4\_seq-28\_pat-30.kid using the installation name PSN\*4.0\*30.
- ❑ Load and install NDF patch 31 (seq 29) in file ndf4p31.kid using PSN\*4.0\*31 as the installation name.
- ❑ Load and install NDF patch 34 (seq 30) in file ndf4p34.kid using PSN\*4.0\*34 as the installation name.
- ❑ Kill ^PSPPI and load global found in file ndf4p40\_gbl.zip. The last entry in the global is ^PSPPI(5283,6,2,0). Load and install NDF patch seq #s 31-37 in file psn\_pg\_6.kid using PSN\*4.0\*36 as the installation name.
- ❑ Load and install NDF patch 39 (seq 38) in file ndf4p39.kid using PSN\*4.0\*39 as the installation name.
- ❑ Load and install Inpatient Pharmacy patch seq #s 28-39 in file psj\_pg\_4.kid using PSJ\*5.0\*30 as the installation name.
- ❑ Load and install NDF patch seq #s 39-41 in file psn\_pg\_7.kid using PSN\*4.0\*43 as the installation name.
- ❑ Load and install NDF patch 46 (seq 42) in file ndf4p46.kid using PSN\*4.0\*46 as the installation name.
- ❑ Load and install NDF patch 49 (seq 43) in file ndf4p49.kid using PSN\*4.0\*49 as the installation name.
- ❑ Load and install NDF patch seq #s 44-46 in file psn\_pg\_8.kid using PSN\*4.0\*50 as the installation name.
- ❑ Load and install Consults patch seq #s 7-14 in file gmrc\_pg\_2.kid using GMRC\*3.0\*10 as the installation name.
- ❑ Load and install TIU patch seq #s 64-76 in file tiu\_pg\_6.kid using TIU\*1.0\*77 as the installation name.
- ❑ Make sure all existing missing field errors are resolved before installing the next TIU patch. Use the Review Upload Filing Events [TIU REVIEW FILING EVENTS] option.

- ❑ Load and install TIU patch seq #s 77-89 in file tiu\_pg\_7.kid using TIU\*1.0\*86 as the installation name.
- ❑ Load and install Outpatient Pharmacy patch seq #s 21-39 in file pso\_pg\_2.kid using PSO\*7.0\*24 as the installation name.
- ❑ Load and install OERR patch 32 (seq 52) in file or\_30\_32.kid using OR\*3.0\*32 as the installation name.
- ❑ Load and install OERR patch seq #s 53-57 in file or\_pg\_6.kid using OR\*3.0\*60 as the installation name.
- ❑ Load and install Outpatient Pharmacy patch seq #s 40-50 in file pso\_pg\_3.kid using PSO\*7.0\*42 as the installation name.
- ❑ Load and install Pharmacy Data Management patch seq #s 35 – 41 in file pss\_pg\_4.kid using PSS\*1.0\*34 as the installation name.
- ❑ Load and install Outpatient Pharmacy patch seq #s 51-59 in file pso\_pg\_4.kid using PSO\*7.0\*57 as the installation name.
- ❑ Load and install Automated Info Collection System patch seq #s 20, 23, 25-34 (minus 27 & 31) in file ibd\_pg\_1.kid using IBD\*3.0\*31 as the installation name.
  - When prompted 'Want my data to overwrite yours?', answer YES.
- ❑ Load and install TIU patch seq #s 90-98 in file tiu\_pg\_8.kid using TIU\*1.0\*89 as the installation name.
- ❑ Load and install Dietetic patches contained in mega build file fh\_pg\_2.kid using FH\*5.0\*13 as the installation name. The build contains patch sequence #s 13-26. The CPRS v1.0 build contains patch 6 sequence number 12.
- ❑ Load and install OERR patch seq #s 58-69 in file or\_pg\_7.kid using OR\*3.0\*51 as the installation name. Answer with the default to the recompile, queuing and display questions.
- ❑ Load and install OERR patch seq #s 70-83 in file or\_pg\_8.kid using OR\*3.0\*68 as the installation name.
- ❑ Load and install Lab patches contained in file lr\_pg\_2.kid using LA\*5.2\*47 as the installation name. The following patches will be installed: LA\*5.2\*47, LR\*5.2\*202, LR\*5.2\*185, LR\*5.2\*190, LR\*5.2\*220, LR\*5.2\*227, LR\*5.2\*226, LR\*5.2\*223, LR\*5.2\*228, LR\*5.2\*221, LR\*5.2\*230, LR\*5.2\*241, LR\*5.2\*250, LR\*5.2\*251, LR\*5.2\*245.
- ❑ Load and install OERR GUI support build in file or\_30\_10.kid (patch 10 sequence 84) using OR\*3.0\*10 as the installation name.

- ❑ Load and install Laboratory patch 256 ( seq # 200) in file lr\_pg\_3.kid using LR\*5.2\*256 as the installation name.
- ❑ Load and install OERR patch seq #s 85-87 in file or\_pg\_9.kid using OR\*3.0\*89 as the installation name.
- ❑ Load and install OERR patch 97 (seq 88) in file or\_3\_97.kid using OR\*3.0\*97 as the installation name using CPRS HL7 CHANGES 1.0 as the installation name. Answer Yes to questions related to package version numbering. Recompile Order Check routines. The or\_3\_97.kid file includes several patches for other packages.
- ❑ Load and install Consult patch seq #s (16-17) in file gmrc\_pg\_3.kid using GMRC\*3.0\*18 as the installation name.
- ❑ Load and install OERR patch seq #s 89-96 in file or\_pg\_10.kid using OR\*3.0\*91 as the installation name. There will be tasked conversion job as part of this mega build. Also, recompile the order check routines when prompted.
- ❑ Load and install Dietetic patch seq #s 28-30 contained in mega build file fh\_pg\_3.kid using FH\*5.0\*27 as the installation name.
- ❑ Load and install the Medicine Package in file mc2\_3\_mod.kid using Medicine 2.3 as the installation name. The environment checking routine was modified to use only the KIDS package version lookup.
  - MSM partition size must be 45K or greater.
  - Refer to the Installation Guide for Post-Installation procedures.
- ❑ Load the BTRSETME routine in the btrsetme.rsa file used for V Measurement processing.
- ❑ Load and install the IHS modifications to the Pharmacy routines in file ih\_ps\_bao.kid using IH PS BAO MODS 1.0 as the installation name.
- ❑ Load and install the IHS modifications to the Laboratory routines in file ih\_lr\_bao.kid using IH LR BAO MODS 1.0 as the installation name.
- ❑ Load and install the IHS modifications to the Radiology routines in file ih\_ra\_bao\_1\_1.kid using IH RA BAO MODS 1.1 as the installation name.
- ❑ Load and install the modifications to the Scheduling Package in file ih\_sd\_update\_1t2.kid using IH SD UPDATE 1.0T2 as the installation name.
- ❑ Load and install the modifications to the Registration Package in file ih\_dg\_update\_1t1.kid using IH DG UPDATE 1.0T1 as the installation name.

- ❑ Load and install the modifications to the CPT Package in file `ih_icpt_update_1_0t2_mod.kid` using IHS ICPT UPDATE 1.0T2 as the installation name.
- ❑ Load and install the modifications to the CPRS routines in file `ih_or_update_1_2.kid` using IH OR UPDATES 1.2 as the installation name.
- ❑ Load and install PCE routines and files for support of CPRS in file `ih_px_update_1t2.kid` using IH PX UPDATE 1.0T2 as the installation name.
- ❑ Load the %ZISH routine in file `zish.rsa` into the MGR account. This routine has all uses of the 0 device commented out. This version of %ZISH is specific to UNIX/MSM environments.
- ❑ Load and install the modifications to the Problem List routine in file `ih_gmpl_updates_1_0.kid` using IH GMPL UPDATES 1.0 as the installation name. This build contains fixes specific to using the IHS Problem File.
- ❑ Load and install RPC Broker update in file `ih_xwb_update_1_0.kid` using IH XWB UPDATE 1.0 as the installation name. This update enhances the error trapping found in the XWBTCPC routine.
  - Shutdown the RPC Broker: `D STOP^XWBTCPC(port)`
  - Install patch
  - Start the RPC Broker: `D STRT^XWBTCPC(port)`
- ❑ Load and install Dietetics updates in file `ih_fh_update_1_0.kid` using IH FH UPDATE 1.0 as the installation name.
- ❑ Load and install the National Service File (File 730) in file `ih_national_svc_file_1_0.kid` using IH NATIONAL SVC FILE 1.0 as the installation name.
- ❑ Define the facility in the Station Number File (389.9).
- ❑ Review the Medical Center Division File (40.8) facility entry for accurateness.
- ❑ Add an entry in the VSIT SITE CODES file (150.2) for the facility.
- ❑ Change prefix of Health Summary from GMTS back to HSUM.
- ❑ Installation of Part Two is complete.

### Part Three

- ❑ Install Medicine Patches

- Load and install Consult patch seq # (18) in file gmrc\_pg\_4.kid using GMRC\*3.0\*15 as the installation name.
- PCE Parameters must be defined.
- XPAR was modified to resolve naked reference in GETWP API.