

Collaborative Terminology Tooling & Data Management (CTT&DM)

Native Domain Standardization (NDS)

Providers Domain

Deployment, Installation, Back-Out, and Rollback Guide

XU*8.0*671



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Artifact Rationale

This document describes the Deployment, Installation, Back-out, and Rollback Plan for new products going into the VA Enterprise. The plan includes information about system support, issue tracking, escalation processes, and roles and responsibilities involved in all those activities. Its purpose is to provide clients, stakeholders, and support personnel with a smooth transition to the new product or software, and should be structured appropriately, to reflect particulars of these procedures at a single or at multiple locations.

Per the Veteran-focused Integrated Process (VIP) Guide, the Deployment, Installation, Back-out, and Rollback Plan is required to be completed prior to Critical Decision Point #2 (CD #2), with the expectation that it will be updated throughout the lifecycle of the project for each build, as needed.

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1 Introduction

This document describes how to deploy and install Providers Native Domain Standardization patch XU*8.0*671, as well as how to back-out the product and rollback to a previous version or data set. This document is a companion to the project charter and management plan for this effort.

1.1 Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom the Providers Native Domain Standardization patch XU*8.0*671 will be deployed and installed, as well as how it is to be backed out and rolled back, if necessary. The plan also identifies resources, communications plan, and rollout schedule. Specific instructions for installation, back-out, and rollback are included in this document.

1.2 Dependencies

The Providers Native Domain Standardization patch XU*8.0*671 possesses a direct application dependency on the VistA Kernel 8.0 application (XU) and on the Health Data & Informatics 1.0 application (HDI).

1.3 Constraints

Providers Native Domain Standardization patch XU*8.0*671 possesses the following constraints:

- The update to the VistA PERSON CLASS file (#8932.1) shall not affect the current functionality or conflict with applications that utilize this file.
- The fields being added to these files should only be visible on the back end and to those requesting the information, not the GUI applications used by clinicians within the VA.

2 Roles and Responsibilities

Table 1: Deployment, Installation, Back-out, and Rollback Roles and Responsibilities

Team	Phase / Role	Tasks
OIT Regional Support	Deployment	Plan and schedule deployment (including orchestration with vendors)
CTT&DM NDS Project Team	Deployment	Determine and document the roles and responsibilities of those involved in the deployment.
OIT Regional Support	Deployment	Test for operational readiness
OIT Regional Support	Deployment	Execute deployment
OIT Regional Support	Installation	Plan and schedule installation

Team	Phase / Role	Tasks
CTT&DM NDS Project Team	Installations	Coordinate training
OIT Regional Support	Back-out	Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out)
CTT&DM NDS Project Team	Post Deployment – Warranty Period	Hardware, Software and System Support
OIT Regional Support	Post Deployment – Post Warranty	Hardware, Software and System Support

3 Deployment

The deployment is planned as a concurrent online rollout. During IOC testing and after national release, patch XU*8.0*671 will be distributed via the FORUM Patch Module, and may be deployed at any site without regard to deployment status at other sites.

3.1 Timeline

The deployment and installation is scheduled to run for a period of thirty days, as depicted in the master deployment schedule

3.2 Site Readiness Assessment

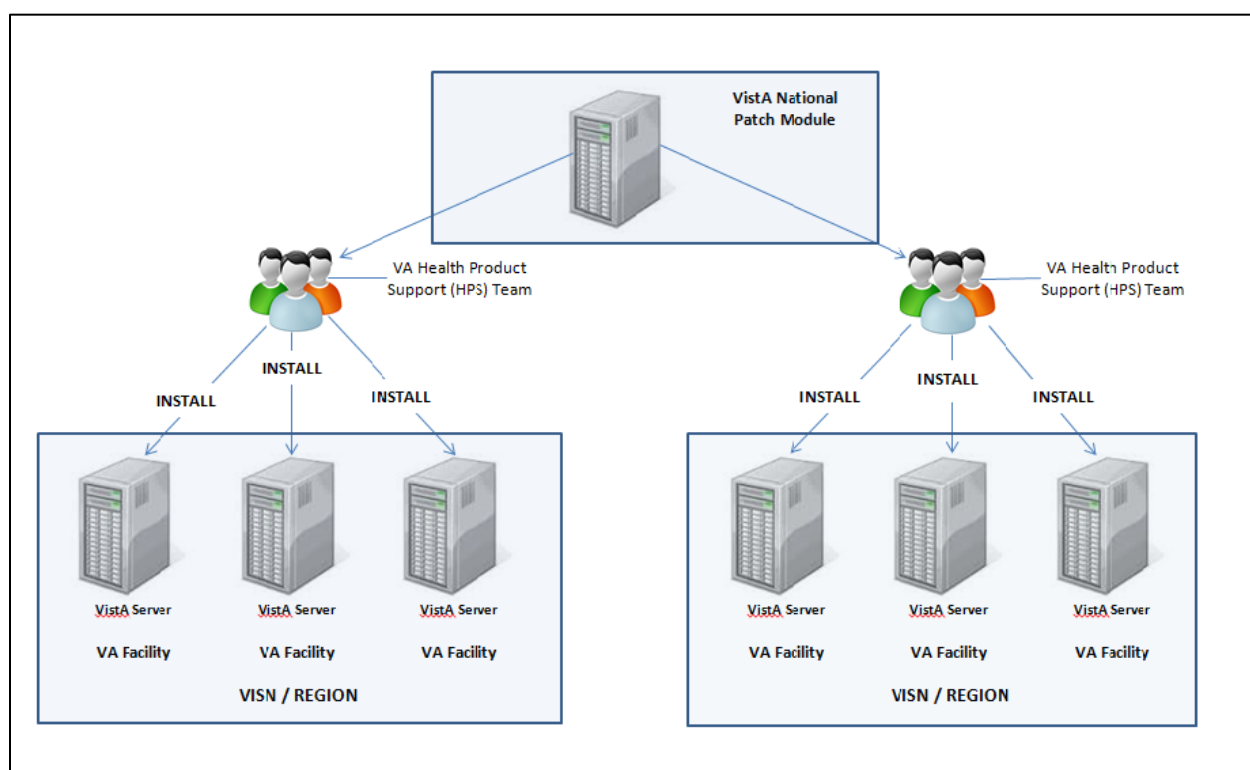
This section discusses the locations that will receive the CTT&DM NDS patch XU*8.0*671 deployment.

The XU*8.0*671 patch must be manually installed, or manually queued for installation, at each VistA instance at which it is deployed, using the standard Kernel Installation Distribution System (KIDS) software. The XU*8.0*671 patch should be installed at all VA VistA instances running the VistA Kernel v.8.0 application, and will update the M (Mumps) server software in each VistA instance's Kernel namespace.

3.2.1 Deployment Topology (Targeted Architecture)

The deployment topology for the CTT&DM NDS patch XU*8.0*671, during IOC testing and after national release, is described below:

Figure 1: Patch XU*8.0*671 Topology



3.2.2 Site Information (Locations, Deployment Recipients)

During IOC testing, CTT&DM NDS patch XU*8.0*671 will be deployed at the following sites:

REDACTED

After national release, CTT&DM NDS patch XU*8.0*671 will be deployed at all sites running the Vista Kernel v.8.0 application.

3.2.3 Site Preparation

No special preparation is required by the site prior to deployment.

3.3 Resources

Deployment of CTT&DM NDS patch XU*8.0*671 requires a fully patched Vista environment running the Kernel v.8.0 application, as well as a Health Product Support (HPS) team member available to perform the patch installation.

3.3.1 Facility Specifics

There are no facility-specific deployment or installation features of CTT&DM NDS patch XU*8.0*671.

3.3.2 Hardware

CTT&DM NDS patch XU*8.0*671 requires no site hardware specifications during, or prior to, deployment.

3.3.3 Software

The following table describes software specifications required at each site prior to deployment.

Table 2: Software Specifications

Required Software	Make	Version	Configuration	Manufacturer	Other
Health Data & Informatics (HDI) patch HDI*1.0*18		1.0	Standard	VHA	
VistA Kernel (XU) patch XU*8*677		8.0	Standard	VHA	
VistA Kernel		8.0	Standard	VHA	

Please see the Roles and Responsibilities table in Section 2 above for details about who is responsible for preparing the site to meet these software specifications.

3.3.4 Communications

No notifications are required for deployment of CTT&DM NDS patch XU*8.0*671.

3.3.4.1 Deployment/Installation/Back-Out Checklist

Table 3: Deployment/Installation/Back-Out Checklist

Activity	Day	Time	Individual who completed task
Deploy			
Install			
Back-Out			

4 Installation

4.1 Pre-installation and System Requirements

Pre/Post Installation Overview:

It is recommended that a Local Patch Backup is created that can be re-installed in the event that patch XU*8.0*671 must be backed out. The approximate time to create the saved local patch is 30 minutes.

Patch Dependencies

Patch HDI*1.0*18 must be installed prior to installing this patch.

Patch XU*8*677 must be installed prior to installing this patch.

Knowledge of, and experience with, the Kernel Installation and Distribution System (KIDS) software is required. For more information, see Section V, Kernel Installation and Distribution System, in the Kernel 8.0 & Kernel Toolkit 7.3 Systems Management Guide.

Pre-Installation Instructions:

Creating a Local Patch Backup

Perform the following procedure to create a Local Patch Backup.

1. From the KIDS (Kernel Installation & Distribution System) Menu, select 'Edits and Distribution'.
2. Select 'Create a Build Using Namespace'.
3. Enter a local patch name and identifier, suggested name ZXU*8.0*671.
4. When prompted 'BUILD PACKAGE FILE LINK:', press <Enter>.
5. When prompted 'BUILD TYPE: SINGLE PACKAGE//', press <Enter>.
6. When prompted 'BUILD TRACK PACKAGE NATIONALLY: YES//', enter NO.
7. When prompted 'Namespace:', press <Enter>.
8. When prompted 'Select Edits and Distribution Option', select: 'Edit a Build'.
9. Enter the local patch name from step 3 (ZXU*8.0*671).
10. For the 'Description:' enter the following: "this is a local backup for XU*8.0*671. This patch should only be installed in the event that XU*8.0*671 needs to be backed out."
11. In the 'COMMAND:' field, enter 'Next Page'.
12. For 'File List' Enter 8932.1 for PERSON CLASS File.
13. In 'Send Full or Partial DD' field, enter FULL.
14. In the 'Update the Data Dictionary:' field, enter YES.
15. In the 'Send Security Code:' field, enter YES.
16. In the 'Data Comes With File:' field, enter YES.
17. In the DD Export Options dialog, move cursor to the COMMAND: prompt, enter 'Close'
18. In the File List dialog, move cursor to the 'COMMAND:' prompt, enter 'Next Page'.
19. In the Build Components section, move cursor to ROUTINE and press <Enter>.

 **NOTE: If patch XU*8.0*671 has not been previously installed the routines listed in steps 20, 21, and 22 will list as not found, since they are new with this patch
20. In the first blank row in the ROUTINE dialog, enter XU671PO, and 'Send To Site'.
21. In the next blank row in the ROUTINE dialog, enter XUPC991, and 'Send to Site'.
22. In the next blank row in the ROUTINE dialog, enter XUPCZRT, and 'Send to Site'.
23. Move cursor to the 'COMMAND:' prompt in the ROUTINE dialog, enter 'Close'.

24. Move cursor to the 'COMMAND:' prompt in the BUILD COMPONENTS dialog, enter 'Save', then enter 'Exit'.
25. When returned to the Edits and Distribution menu, select option 'Transport a Distribution'.
26. Enter the 'local package name and identifier' that was created in Step 3. (ZXU*8.0*671).
27. At the 'Another Package Name:' press <Enter>.
28. At the 'OK to continue? Prompt, select YES//' press <Enter>.
29. If creating a Host File transport, perform the following steps:
 - a. At the 'Transport through (HF) Host File or (PM) PackMan:' prompt, enter HF.
 - b. At the 'Enter a Host File:' prompt, enter the system file to which the Local Patch Backup will be saved. (ZXU_8_0_671.KID).
 - c. At the 'Header Comment:' Enter 'Local Backup of XU*8.0*671'.
 - d. At the Edits and Distribution Menu, press <Enter>.
 - e. At the KIDS Menu press <Enter>.
30. If creating a PackMan transport, perform the following steps:
 - a. At the 'Transport through (HF) Host File or (PM) PackMan:' enter PM.
 - b. At the 'Header Comment:' enter 'Local Backup of XU*8.0*671'
 - c. For the description of Packman Message, Enter: 'This is a saved backup for the providers patch install for XU*8.0*671. This local build will be used in the event that the above mentioned installs need to be backed out.'
 - d. At 'EDIT Option:' press <Enter>.
 - e. At the 'Do you wish to secure this message? NO//' prompt, Enter 'NO'.
 - f. At the 'Send mail to:' prompt, Enter your name.
 - g. At the 'Select basket to send to: IN//' prompt: press <Enter>.
 - h. At the 'And Send to:' prompt: Enter any additional persons that may need to have the local patch.
 - i. At The 'Select Edits and Distribution <TEST ACCOUNT> Option:' press <Enter>.

4.2 Platform Installation and Preparation

Patch XU*8.0*671 does not require any platform installation or preparation.

4.3 Download and Extract Files

CTT&DM NDS patch XU*8.0*671 is being released as a FORUM Patch via the Patch Module, therefore, the patch must be downloaded from FORUM, and forwarded to the destination site, in the form of a Packman message.

Documentation describing the new functionality introduced by this patch is available. The preferred method is to retrieve files from REDACTED This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following OI Field Offices:

Hines: REDACTED

Salt Lake City: REDACTED

The documentation will be in the form of Adobe Acrobat files. Documentation can also be found on the VA Software Documentation Library at: <http://www4.va.gov/vdl/>

Title: Deployment, Installation, Back-Out, Rollback Guide XU*8.0*671

File Name: xu_8_0_671_ig.doc

xu_8_0_671_ig.pdf

FTP Mode: Binary

4.4 Database Creation

No new database is required for the CTT&DM NDS patch XU*8.0*671.

4.5 Installation Scripts

No installation scripts are required for installation of CTT&DM NDS patch XU*8.0*671.

4.6 Cron Scripts

No CRON scripts are required for installation of CTT&DM NDS patch XU*8.0*671.

4.7 Access Requirements and Skills Needed for the Installation

Access to national VA network, as well as the local network of each site to receive CTT&DM NDS patch XU*8.0*671 is required to perform the installation, as well as authority to create and install patches.

Knowledge of, and experience with, the Kernel Installation and Distribution System (KIDS) software is required. For more information, see Section V, Kernel Installation and Distribution System, in the [Kernel 8.0 & Kernel Toolkit 7.3 Systems Management Guide](#).

4.8 Installation Procedure

Installation Instructions:

1. Choose the PackMan message containing this patch.
2. Choose the INSTALL/CHECK MESSAGE PackMan option.
3. From Kernel Installation and Distribution System Menu, select the Installation Menu. From this menu, you may elect to use the following options. When prompted for the INSTALL NAME, enter the patch XU*8.0*671:
 - a. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup other changes such as DDs or templates.

- b. Compare Transport Global to Current System - 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, DDs, templates, etc.).
 - c. Verify Checksums in Transport Global - This option will allow you to ensure the integrity of the routines that are in the transport global.
4. From the Installation Menu, select the Install Package(s) option and choose the patch to install.
5. When prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//', respond NO.
6. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//', respond NO.
7. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//', respond NO.
8. If prompted 'Delay Install (Minutes): (0 - 60): 0//' respond 0.

4.9 Installation Verification Procedure

Installation of routines in CTT&DM NDS patch XU*8.0*671 may be verified by running the Kernel checksum tool from the VistA server command line after installation:

D CHECK1^XTSUMBLD

The checksums produced by the checksum tool should match the numeric portion of the “After:” checksums in the CTT&DM NDS patch XU*8.0*671 patch description.

Example, Checksum for routines as displayed by Kernel checksum tool CHECK1^XTSUMBLD:

```
XU671P0    VALUE = 2327306
XUPC991    VALUE = 3017841
XUPCZRT    VALUE = 37485068THE [AFTER:] CHECKSUM FOR ROUTINES AS DISPLAYED IN
THE PATCH DESCRIPTION:
ROUTINE NAME: XU671P0
  BEFORE:      N/A    AFTER:  2327306    **671**
ROUTINE NAME: XUPC991
  BEFORE:      N/A    AFTER:  3017841    **671**
ROUTINE NAME: XUPCZRT
  BEFORE:      N/A    AFTER:  37485068    **671**
```

Installation of Data Dictionaries in CTT&DM NDS patch XU*8.0*671 may be verified by running the FileMan Data Listing tool from the VistA server command line after installation. The new fields will print in the output if installation was successful.

Example, verification of fields installed with XU*8.0*671 using FileMan Data Listing:

```
D P^DI
Select OPTION: DATA DICTIONARY UTILITIES
```

```

Select DATA DICTIONARY UTILITY OPTION: LIST FILE ATTRIBUTES
  START WITH What File: PERSON CLASS//      (1217 entries)
    GO TO What File: PERSON CLASS//      (1217 entries)
    Select SUB-FILE:
Select LISTING FORMAT: STANDARD// BRIEF
ALPHABETICALLY BY LABEL? No// (No)
Start with field: FIRST// 99.97 REPLACED BY VHA STANDARD TERM
Go to field: 99.991 EFFECTIVE DATE/TIME
DEVICE: ;;9999 DEC Windows      Right Margin: 80// 132

```

OUTPUT, FileMan brief Data Listing verifying successful installation:

BRIEF DATA DICTIONARY #8932.1 -- PERSON CLASS FILE		2/14/17	PAGE 1
SITE: TEST.CHEYENNE.MED.VA.GOV UCI: CHEY59,ROU		(VERSION 8.0)	

REPLACED BY VHA STANDARD TERM	8932.1,99.97	POINTER TO PERSON CLASS FILE (#8932.1) Enter the Term/Concept that replaces this one, if applicable.	
MASTER ENTRY FOR VOID	8932.1,99.98	SET '0' FOR NO; '1' FOR YES; Enter a '1' if this is a master entry, otherwise enter a '0'.	
VOID	8932.1,99.99	FREE TEXT Answer must be 1-20 digits in length.	
EFFECTIVE DATE/TIME	8932.1,99.991	8932.199 DATE	
Multiple			
EFFECTIVE DATE/TIME	8932.199,.01	DATE Enter the date/time this status became effective.	
STATUS	8932.199,.02	SET '1' FOR ACTIVE; '0' FOR INACTIVE;	

4.10 System Configuration

No System Configuration is required before or after deployment of CTT&DM NDS patch XU*8.0*671.

4.11 Database Tuning

No Database Tuning is required before or after deployment of CTT&DM NDS patch XU*8.0*671.

5 Back-Out Procedure

NOTE: Due to the complexity of this patch (because of the data dictionary changes), it is not recommended for back-out. However, in the event that a site decides to back-out of this patch, the site should contact the National Service Desk (NSD) to submit a CA SDM ticket; the development team will assist with the process.

Perform the back-out procedure to load the locally made patch created in Section 4. The back-out is to be performed by persons with programmer-level access, **and in conjunction with the STS team.**

5.1 Back-Out Strategy

The Back-out Strategy is to load the locally made patch that was created in Section 4.

5.2 Back-Out Considerations

The back-out should only be done in the event that the local facility management determines that the patch XU*8.0*671 is not appropriate for that facility, and should only be done as a last resort.

5.2.1 Load Testing

No load testing is required for patch XU*8.0*671.

5.2.2 User Acceptance Testing

N/A

5.3 Back-Out Criteria

Local Facility Management would need to determine patch XU*8.0*671 is not appropriate for their facility.

5.4 Back-Out Risks

By backing out XU*8.0*671, the local facility will not receive the STS data push from the respective Standards Development Organizations for the Providers domain.

5.5 Authority for Back-Out

The Local Facility Management has the authority to back-out patch XU*8.0*671.

5.6 Back-Out Procedure

NOTE: Due to the complexity of this patch (because of the data dictionary changes), it is not recommended for back-out. However, in the event that a site decides to back-out this patch, the site should contact the National Service Desk (NSD) to submit a CA SDM ticket; the development team will assist with the process.

Perform the back-out procedure to load and install the locally made patch created in Section 4.2, delete the new imported routines, and delete the new REPLACED BY VHA STANDARD TERM (#99.97) field, MASTER ENTRY FOR VUID (#99.98) field, and VUID (#99.99) field, and the EFFECTIVE DATE/TIME (#99.991) multiple field in the Providers PERSON CLASS (#8932.1) file.

The following is an example of the steps that would be executed for the fields being removed. The back-out is to be performed by persons with programmer privileges, **and in conjunction with the STS Team**. File Manager should be used to delete the new fields added with XU*8.0*671. This will automatically also remove all sub-fields and data.

Back-Out Procedure

The following will need to be executed from the programmers prompt (User input depicted below in ***bold italicized*** font):

Delete new routines using ROUTINE DELETE:

```
D ^%ZTRDEL
```

```
ROUTINE DELETE
```

```
ALL ROUTINES? NO => NO
```

```
ROUTINE: XU671P0
```

```
ROUTINE: XUPC991
```

```
ROUTINE: XUPCZRT
```

```
1 ROUTINE
```

```
3 ROUTINES TO DELETE, OK: NO// Y
```

```
XU671P0
```

```
XUPC991
```

```
XUPCZRT
```

```
DONE.
```

Delete new fields and data from PERSON CLASS (#8932.1) file:

```
D P^DI
Select OPTION: MODIFY FILE ATTRIBUTES
Do you want to use the screen-mode version? YES// NO
MODIFY WHAT FILE: // 8932.1 PERSON CLASS (#8932.1)
                                     (2346 entries)
Select FIELD: REPLACED BY VHA STANDARD TERM
LABEL: REPLACED BY VHA STANDARD// @
    SURE YOU WANT TO DELETE THE ENTIRE 'REPLACED BY VHA STANDARD TERM' FIELD? Y (Yes)
OK TO DELETE 'REPLACED BY VHA STANDARD TERM' FIELDS IN THE EXISTING ENTRIES? Yes// Y
(Yes).....

Select FIELD: MASTER ENTRY FOR VOID
LABEL: MASTER ENTRY FOR VOID// @
    SURE YOU WANT TO DELETE THE ENTIRE 'MASTER ENTRY FOR VOID' FIELD? Y (Yes)
OK TO DELETE 'MASTER ENTRY FOR VOID' FIELDS IN THE EXISTING ENTRIES? Yes// Y (Yes).....

Select FIELD: VOID
LABEL: VOID// @
    SURE YOU WANT TO DELETE THE ENTIRE 'VOID' FIELD? Y (Yes)
OK TO DELETE 'VOID' FIELDS IN THE EXISTING ENTRIES? Yes// Y (Yes).....

Select FIELD: EFFECTIVE DATE/TIME (multiple)
LABEL: EFFECTIVE DATE/TIME// @
    SURE YOU WANT TO DELETE THE ENTIRE 'EFFECTIVE DATE/TIME' FIELD? Y (Yes)
OK TO DELETE 'EFFECTIVE DATE/TIME' FIELDS IN THE EXISTING ENTRIES? Yes// Y (Yes).....
```

The steps for the load and installation of the locally made patch are very similar to the installation steps listed in section 4.8.

1. Choose the PackMan message containing this patch.
2. Choose the INSTALL/CHECK MESSAGE PackMan option.
3. From Kernel Installation and Distribution System Menu, select the Installation Menu. From this menu, you may elect to use the following options. When prompted for the INSTALL NAME, enter the local patch from section 4.8, ZXU*8.0*671.
4. From the Installation Menu, select the Install Package(s) option and choose the patch to install.
5. When prompted 'Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//'
6. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//'
7. When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//'
8. If prompted 'Delay Install (Minutes): (0 - 60): 0//' respond 0.

5.7 Back-out Verification Procedure

ROUTINES

After backing out patch XU*8.0*671 by installing the local patch from section 4.8, routine back-out may be verified by running the Kernel checksum tool from the VistA server command line after installation:

D CHECK1^XTSUMBLD

The checksums produced by the checksum tool should match the numeric portion of the “Before:” checksums in the CTT&DM NDS patch XU*8.0*671 patch description.

For patch XU*8.0*671, since the routines are new, the “Before:” checksums from the patch description are “n/a”. If routine back-out was successful, the checksum tool will display the message “Routine not in this UCI” in place of a checksum.

Patch description “Before” checksums are “n/a”:

Routine Name: XU671PO			
Before:	n/a	After:	2327306 **671**
Routine Name: XUPC991			
Before:	n/a	After:	3017841 **671**
Routine Name: XUPCZRT			
Before:	n/a	After:	37485068 **671**

After back-out, checksum tool displays “Routine not in this UCI”:

D CHECK1^XTSUMBLD			
New CheckSum CHECK1^XTSUMBLD:			
Select one of the following:			
P	Package		
B	Build		
Build from: Build			
This will check the routines from a BUILD file.			
Select BUILD NAME: XU*8.0*671 KERNEL			
XU671PO	value = 2327306		Routine not in this UCI
XUPC991	value = 3017841		Routine not in this UCI
XUPCZRT	value = 37485068		Routine not in this UCI
done			

DATA DICTIONARIES

After backing out Patch XU*8.0*671, successful back-out of the fields installed by the patch may be verified by running a global listing from the VistA server command line after installation.

The fields in the PERSON CLASS file (#8932.1) deleted during back-out are:

The REPLACED BY VHA STANDARD TERM field (#99.97).

The MASTER ENTRY FOR VUID field (#99.98).

The VUID field (#99.99).

The EFFECTIVE DATE/TIME multiple field (#99.991)

A global listing should be performed for the following global nodes, after which nothing should be listed if back-out was successful:

Global ^DD(8932.1,99.97

Global ^DD(8932.1,99.98

Global ^DD(8932.1,99.99

Global ^DD(8932.1,99.991

Example, global listing of backed out globals:

```
D ^%G
Device:
Right Margin:
Screen size for paging (0=nopaging)? =>
Global ^DD(8932.1,99.97
    <nothing should print>
Global ^DD(8932.1,99.98
    <nothing should print>
Global ^DD(8932.1,99.99
    <nothing should print>
Global ^DD(8932.1,99.991
    <nothing should print>
```

6 Rollback Procedure

N/A

6.1 Rollback Considerations

N/A

6.2 Rollback Criteria

N/A

6.3 Rollback Risks

N/A

6.4 Authority for Rollback

N/A

6.5 Rollback Procedure

N/A

6.6 Rollback Verification Procedure

N/A