# Clozapine Modernization (ClozMod) PSO*7*613

# Deployment, Installation, Back-Out, and Rollback (DIBR) Guide



**February 2021**

**Department of Veterans Affairs (VA)**

**Office of Information and Technology (OIT)**

# Revision History

| Date | Version | Description | Author |
|------|---------|-------------|--------|
| February 2021 | 1.1 | Date changes | Liberty IT Solutions |
| February 2021 | 1.0 | Initial Delivery | Liberty IT Solutions |

# 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.

# Table of Contents

# 1 Introduction

This document describes how to deploy and install the ClozMod's project's VistA Patch PSO*7*613, as well as how to back-out the product and rollback to a previous version or data set.

## 1.1 Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom the VistA Patch PSO*7*613 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 following VistA patche(s) must be installed at the site:

- PSO*7*621

## 1.3 Constraints

Not applicable for this release.

# 2 Roles and Responsibilities

**Table: Roles and Responsibilities**

| ID | Team | Phase / Role | Tasks |
|----|------|--------------|-------|
| 1 | Field Operations (FO) | Deployment | Plan and schedule deployment (including orchestration with vendors) |
| 2 | FO | Deployment | Determine and document the roles and responsibilities of those involved in the deployment. |
| 3 | FO | Deployment | Test for operational readiness |
| 4 | FO | Deployment | Execute deployment |
| 5 | FO | Installation | Plan and schedule installation |
| 6 | Contractor Team (Liberty) | Installation | Ensure authority to operate and that certificate authority security documentation is in place |
| 7 | Contractor Team (Liberty) | Installation | Validate through facility POC to ensure that IT equipment has been accepted using asset inventory processes |
| 8 | Contractor Team (Liberty) | Installations | Coordinate training |
| 9 | Contractor Team (Liberty) | Back-out | Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out) |
| 10 | Contractor Team (Liberty) | Post Deployment | Hardware, Software and System Support |

# 3 Deployment

The deployment is planned as a national general availability release. The scheduling of test/mirror installs, testing, and the deployment to production will be at the sites' discretion. It is anticipated that there will be a 14-day compliance period.

A national release is planned for February 2021 after testing has been successfully completed at two initial operating capability (IOC) test sites: Boston and Fargo.

Deployment will be performed by the local or regional staff and supported by team members from these organizations: FO and Enterprise Operations. Other teams may provide additional support.

## 3.1 Timeline

The deployment and installation for PSO*7*613 is scheduled to occur in February 2021.

**Table: Timeline Overview**

| Task Name | Start | Finish |
|---|---|---|
| Release Readiness | Fri 1/22/21 | Tue 2/25/21 |
| Complete National Release | Wed 2/25/21 | Wed 2/25/21 |
| Complete Compliance Period | Thu 2/26/21 | Tue 3/12/21 |

## 3.2 Site Readiness Assessment

This section discusses the locations that will receive the PSO*7*613 deployment.

### 3.2.1 Deployment Topology (Targeted Architecture)

Patch PSO*7*613 will be deployed in VistA.

### 3.2.2 Site Information (Locations, Deployment Recipients)

VistA Patch PSO*7*613 will be installed at all required locations using the standard VistA Kernel Installation and Distribution (KIDS) processes. Upon release, VistA Patch PSO*7*613 is automatically forwarded by the FORUM National Patch Module (NPM) to the support mail groups responsible for patch installation. The patch should be installed at all production VistA instances that require the Outpatient Pharmacy V7.0 package.

### 3.2.3 Site Preparation

No activities are needed to prepare the VistA sites for this release.

## 3.3 Resources

Not applicable for this release.

### 3.3.1 Facility Specific

Not applicable for this release.

### 3.3.2 Hardware

Not applicable for this release.

### 3.3.3 Software

The VistA Patch PSO*7*613 is written in M programming language using the vendor Caché and is compliant with VistA's standards and conventions. Software elements, such as protocols, are stored in the appropriate files.

Please see the Roles and Responsibilities table in Section 2 above for details on responsibility for preparing the site to meet these software specifications.

### 3.3.4 Communications

The development team will use email and conference calls for communication during the deployment; email and/or conference calls will also be utilized to notify stakeholders of the successful product release.

# 4  Installation

## 4.1  Pre-installation and System Requirements

VistA Patch PSO*7*613 will be distributed as a standard KIDS build. The patch description also contains the installation procedure.

## 4.2  Platform Installation and Preparation

VistA Patch PSO*7*613 can be installed with users on the system. It is recommended to install it during non-peak hours. The release should take five minutes or less to install.

## 4.3  Download and Extract Files

The VistA patch will be distributed via the standard VistA release process; no files need to be downloaded for the installation of this patch.

## 4.4  Database Creation

Not applicable for this release.

## 4.5  Installation Scripts

Not applicable for this release.

## 4.6  Cron Scripts

Not applicable for this release.

## 4.7  Access Requirements and Skills Needed for Installation

This guide is written with the assumption that the reader is experienced and/or familiar with VistA software installation via KIDS.

## 4.8  Installation Procedure

The KIDS build will be installed by local or regional OIT staff. Routines will be backed up to a PackMan message before installing the build. PSO*7*613 contains two pre-existing routines: PSOCLADD and PSOCLO1. The rest of the routines are new and will not be backed up.

Prior to installing PSO*7*613, command CHECK1^XTSUMBLD will be run to capture the 'pre' patch checksums.

## 4.8.1 Installation Instructions

Patch PSO*7*613 is installed using KIDS. For install, perform the following steps in order:

- Choose the PackMan message containing this build. Then select the INSTALL/CHECK MESSAGE PackMan option to load the build.

- From the KIDS Menu, select the Installation Menu. From this menu:

  - Select the Verify Checksums in Transport Global option to confirm the integrity of the routines that are in the transport global. When prompted for the INSTALL NAME enter the patch or build name PSO*7*613.

  - Select the Backup a Transport Global option to create a backup message. You must use this option for each patch contained in the Host File. For each patch you can specify what to backup; the entire Build or just Routines. The backup message can be used to restore just the routines or everything that will restore your system to pre-patch condition.

  - You may also elect to use the following options:

    - Print Transport Global - This option will allow you to view the components of the KIDS build.

    - 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 of the components of this patch, such as routines, DDs, templates, etc.

- Select the Install Package(s) option and choose the patch to install.

  - When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//', answer NO.

  - When prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//', answer NO.

Sample Install Log:

```
Select Installation Option: 6 Install Package(s)
Select INSTALL NAME: PSO*7.0*613 11/29/19@17:04:58
=> PSO*7.0*613 BACKUP THREE

This Distribution was loaded on Nov 29, 2019@17:04:58 with header of
PSO*7.0*613
It consisted of the following Install(s):
PSO*7.0*613
Checking Install for Package PSO*7.0*613

Install Questions for PSO*7.0*613

Incoming Files:

52.52    CLOZAPINE PRESCRIPTION OVERRIDES
Note:  You already have the 'CLOZAPINE PRESCRIPTION OVERRIDES' File.

Want KIDS to INHIBIT LOGONs during the install? NO//
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//

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)
```

## 4.9 Installation Verification Procedure

Post installation validation must be done on the fields installed for the CLOZAPINE PRESCRIPTION OVERRIDES file (#52.52).

CLOZAPINE PRESCRIPTION OVERRIDES #52.52 Post Install Field Validation:

Using FileMan, validate that the install of the following three fields in the CLOZAPINE PRESCRIPTION OVERRIDES file (#52.52) were successful:

- OVERRIDE TEAM MEMBER field (#7)

- OVERRIDE PROVIDER field (#8)

- ORDER field (#9)

Then follow the following steps in order:

- From the FileMan OPTION menu navigate to: 8 DATA DICTIONARY UTILITIES

  → 1 LIST FILE ATTRIBUTES

- Select file 52.52

- Select STANDARD for LISTING FORMAT

- Start with field 7

- Go to field 9

The 3 fields should be displayed like below:

Example:

```
CHY0070>D P^DI
VA FileMan 22.2

Select OPTION: ?
Answer with OPTION NUMBER, or NAME
Choose from:
1         ENTER OR EDIT FILE ENTRIES
2         PRINT FILE ENTRIES
3         SEARCH FILE ENTRIES
4         MODIFY FILE ATTRIBUTES
5         INQUIRE TO FILE ENTRIES
6         UTILITY FUNCTIONS
7         OTHER OPTIONS
8         DATA DICTIONARY UTILITIES
9         TRANSFER ENTRIES

Select OPTION: 8  DATA DICTIONARY UTILITIES
Select DATA DICTIONARY UTILITY OPTION: ?
Answer with DATA DICTIONARY UTILITY OPTION NUMBER, or NAME
Choose from:
1         LIST FILE ATTRIBUTES
2         MAP POINTER RELATIONS
3         CHECK/FIX DD STRUCTURE
4         FIND POINTERS INTO A FILE
5         UPDATE THE META DATA DICTIONARY

Select DATA DICTIONARY UTILITY OPTION: 1  LIST FILE ATTRIBUTES
START WITH What File: CLOZAPINE PRESCRIPTION OVERRIDES// 52.52
CLOZAPINE PRESCRIPTION OVERRIDES    (449 entries)
GO TO What File: CLOZAPINE PRESCRIPTION OVERRIDES//   (449 entries)
Select LISTING FORMAT: STANDARD//
Start with field: FIRST// 7  OVERRIDE TEAM MEMBER
Go to field: 9  ORDER
DEVICE:  HOME  (CRT)    Right Margin: 80//
STANDARD DATA DICTIONARY #52.52 -- CLOZAPINE PRESCRIPTION OVERRIDES
FILE   1/25/21    PAGE 1
STORED IN ^PS(52.52,  (449 ENTRIES)   SITE: TEST.CHEYENNE.MED.VA.GOV
UCI: CHY0070,ROU
(VERSION
7.0)


DATA           NAME                    GLOBAL      DATA
ELEMENT        TITLE                   LOCATION    TYPE
-----------------------------------------------------------------------
52.52,7     OVERRIDE TEAM MEMBER   0;7 POINTER TO NEW PERSON FILE (#200)

LAST EDITED: JUN 30, 2020
HELP-PROMPT: Enter the name of the clozapine team member who verified the
override.
DESCRIPTION: This is the member of the clozapine team who was selected to
verify an override for this prescription or order.


UNEDITABLE

STANDARD DATA DICTIONARY #52.52 -- CLOZAPINE PRESCRIPTION OVERRIDES
```

```
FILE   1/25/21    PAGE 2
STORED IN ^PS(52.52,  (449 ENTRIES)   SITE: TEST.CHEYENNE.MED.VA.GOV
UCI: CHY0070,ROU
(VERSION 7.0)


DATA            NAME                   GLOBAL      DATA
ELEMENT         TITLE                  LOCATION    TYPE
----------------------------------------------------------------------
52.52,8     OVERRIDE PROVIDER      0;8 POINTER TO NEW PERSON FILE (#200)


LAST EDITED:      JUL 02, 2020
HELP-PROMPT:      Enter the name of the provider who entered the clozapine
override.
DESCRIPTION:      This the provider who made the override for the
prescription or order.


UNEDITABLE

52.52,9     ORDER                  0;9 POINTER TO ORDER FILE (#100)

STANDARD DATA DICTIONARY #52.52 -- CLOZAPINE PRESCRIPTION OVERRIDES
FILE   1/25/21    PAGE 3
STORED IN ^PS(52.52,  (449 ENTRIES)   SITE: TEST.CHEYENNE.MED.VA.GOV
UCI: CHY0
(VERSION 7.0)


DATA            NAME                   GLOBAL      DATA
ELEMENT         TITLE                  LOCATION    TYPE
----------------------------------------------------------------------
LAST EDITED: JUL 02, 2020
HELP-PROMPT: Enter the order number associated with this override.
DESCRIPTION: This is the clozapine order number associated with this
override.

UNEDITABLE

FILES POINTED TO
FIELDS
   NEW PERSON (#200)
   OVERRIDE TEAM MEMBER (#7)
   OVERRIDE PROVIDER (#8)
   ORDER (#100)
   ORDER (#9)
Select DATA DICTIONARY UTILITY OPTION:
Select OPTION:
```

# 4.10 System Configuration

No configuration changes are needed in VistA.

# 4.11 Database Tuning

Not applicable for this release.

# 5 Back-Out Procedure

The back-out procedure returns the software to the last known operational state of the software and appropriate platform settings.

## 5.1 Back-Out Strategy

The VistA software can be removed manually using standard VistA software. The two pre-existing routines in the patch, PSOCLADD and PSOCLO1, may be restored to its pre-patch state by installing the backup created prior to installation. All other routines in this patch are new and must be manually deleted. Any existing software will remain functional. The other non-routine individual software components for this patch can be removed using FileMan.

## 5.2 Back-Out Considerations

Changes implemented with Patch PSO*7*613 should be backed out in their entirety. Changes are generally interdependent and should not be backed out on an item by item basis.

### 5.2.1 Load Testing

Not applicable for this release.

### 5.2.2 User Acceptance Testing

UAT will be covered by IOC testing performed at the following VistA test sites: Boston and Fargo.

## 5.3 Back-Out Criteria

Patch PSO*7*613 may be backed out if it is decided that the project is canceled, the software is not functioning as expected, or the requested changes implemented by the patch are no longer desired by VA OIT and the Clozapine eBusiness team.

## 5.4 Back-Out Risks

As the routine changes in Patch PSO*7.0*613 are defect fixes to existing routines, backing out the changes will revert the software to its pre-patch state and does not pose any additional risk. Software was released in a previous patch to populate the database locations represented by the three new fields, without also installing the DD field definitions. The installation of the three new DD field definitions allows previously filed data to be mapped to clinical concepts and allows the data to be discoverable via Fileman. Backing out the DD fields returns the system to its pre-patch state, where the data exists in the database without being mapped to a DD.

## 5.5 Authority for Back-Out

The authorization to back-out requires concurrence from the Chief of Mental Health, Chief of Staff, and the Facility Director.

## 5.6 Back-Out Procedure

The VistA backout procedure can be executed by restoring existing routines to their pre-patch state by installing the backup created prior to installation.

## 5.6.1 Backout Instructions

The VistA KIDS installation procedure allows the installer to back up the modified routines using the 'Backup a Transport Global' action. The back-out procedure for modified routines is to install the routine backup that was created prior to installation.

Patch PSO*7*613 contains the following build components:

- Routines (new and existing)
- Data Dictionary

This patch does not contain any other software components.

### 5.6.1.1. Restore Modified Routines

To restore modified routines from backup, perform the following steps in order:

- From VistA mailman, select Read/Manage Messages
- Accept default message reader
- Select mail basket containing backup of patch PSO*7*613
- Select message containing backup of patch PSO*7*613 routines
- Enter "^" to exit at the 'Type <Enter> to continue or '^' to exit'
- Enter '6' for the Install/Check Message action at the 'Enter message action' prompt
- Enter "YES" at the 'Do you really want to do this?' prompt
- Optionally save the routines to be overwritten by entering "YES" at the 'Shall I preserve the routines on disk in a separate backup message?' prompt

### 5.6.1.2. Delete Data Dictionaries

Use the Fileman MODIFY FILE ATTRIBUTES option to delete the following new fields exported with the patch:

**Table: New Fields**

| File Name | File Number | Field Name | Field Number |
|-----------|-------------|------------|--------------|
| CLOZAPINE PRESCRIPTION OVERRIDES | 52.52 | OVERRIDE TEAM MEMBER | 7 |
| CLOZAPINE PRESCRIPTION OVERRIDES | 52.52 | OVERRIDE PROVIDER | 8 |
| CLOZAPINE PRESCRIPTION OVERRIDES | 52.52 | ORDER | 9 |

Example:

```
Select OPTION: MODIFY FILE ATTRIBUTES

Do you want to use the screen-mode version? YES// NO

Modify what File: CLOZAPINE PARAMETERS// (1 entry)

Select FIELD: 7   OVERRIDE TEAM MEMBER
LABEL: OVERRIDE TEAM MEMBER   Replace @
   SURE YOU WANT TO DELETE THE ENTIRE 'OVERRIDE TEAM MEMBER' FIELD? Y  (Yes)

OK TO DELETE OVERRIDE TEAM MEMBER FIELDS IN THE EXISTING ENTRIES? No// N (No)

Select FIELD: 8   OVERRIDE PROVIDER
LABEL: OVERRIDE PROVIDER   Replace @
   SURE YOU WANT TO DELETE THE ENTIRE 'OVERRIDE PROVIDER' FIELD? Y  (Yes)

OK TO DELETE OVERRIDE PROVIDER FIELDS IN THE EXISTING ENTRIES? No// N (No)

Select FIELD: 9   ORDER
LABEL: ORDER        Replace @
   SURE YOU WANT TO DELETE THE ENTIRE 'ORDER' FIELD? Y  (Yes)

OK TO DELETE ORDER FIELDS IN THE EXISTING ENTRIES? No// N (No)
```

## 5.7  Back-out Verification Procedure

For VistA routines, the routine CHECK1^XTSUMBLD may be run for the patch at the
programmer prompt. The BEFORE checksum values can be found in the Patch Description.

Example routine CHECK1^XTSUMBLD:

```
VISTAS1:VISTA>D CHECK1^XTSUMBLD
New CheckSum CHECK1^XTSUMBLD:
This option determines the current checksum of selected routine(s).
The Checksum of the routine is determined as follows:

1. Any comment line with a single semi-colon is presumed to be
   followed by comments and only the line tag will be included.
2. Line 2 will be excluded from the count.
3. The total value of the routine is determined (excluding
   exceptions noted above) by multiplying the ASCII value of each
   character by its position on the line and position of the line in
   the routine being checked.

    Select one of the following:
        P         Package
        B         Build

Build from: Build

This will check the routines from a BUILD file.
Select BUILD NAME: PSO*7.0*613       OUTPATIENT PHARMACY
PSOCLADD  value = 17784992
PSOCLO1   value = 206896982
Done
```

For non-routine components, back-out verification can be performed using FileMan LIST FILE ATTRIBUTES option in the DATA DICTIONARY UTILITIES menu to verify that the elements have been removed.

Example Fileman INQUIRE TO FILE ENTRIES:

```
Select OPTION: DATA DICTIONARY UTILITIES
Select DATA DICTIONARY UTILITY OPTION: LIST FILE ATTRIBUTES
 START WITH What File: CLOZAPINE PRESCRIPTION OVERRIDES// 52.52  CLOZAPINE
PRESCRIPTION OVERRIDES                          (29 entries)
GO TO What File: CLOZAPINE PRESCRIPTION OVERRIDES// (29 entries)
Select LISTING FORMAT: STANDARD//
Start with field: FIRST// 7 ??

Start with field: FIRST// 8 ??

Start with field: FIRST// 9 ??
```

# 6    Rollback Procedure

Not applicable for this release.

## 6.1   Rollback Considerations

Not applicable for this release.

## 6.2   Rollback Criteria

Not applicable for this release.

## 6.3   Rollback Risks

Not applicable for this release.

## 6.4   Authority for Rollback

The authorization for a rollback will be determined by the VA Project Manager.

## 6.5   Rollback Procedure

Not applicable for this release.

## 6.6   Rollback Verification Procedure

Not applicable for this release.