



# **Medication Order Check Healthcare Application (MOCHA)**

## **MOCHA 2.1 Dosing Infrastructure**

### **Installation Guide**

**(Rollback/Backout Plan)**

PSS\*1.0\*201 (Stand Alone)

May 2017

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Department of Veterans Affairs

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Product Development

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# 1. Introduction

MOCHA 2.1 Dosing Infrastructure exports new components and enter/edit functionality to prepare for the Daily Dose checks coming in a future patch. In addition, enhancements have been made to the current Single Dose order checks.

The following patch makes up the release of MOCHA 2.1 Dosing Infrastructure:

Patch	Type	Description
PSS*1.0*201	PackMan	MOCHA 2.1 DOSING INFRASTRUCTURE

## 1.1 Purpose

The purpose of this Installation Guide is to provide installation steps for MOCHA 2.1 Dosing Infrastructure. The intended audience for this document is the Information Resources Management Service (IRMS) staff responsible for installing these patches.

## 2. Pre-Requisite Considerations

No pre-requisite considerations.

### 2.1 Minimum Required Packages

The patches described in this installation guide can only be run with a standard Massachusetts General Hospital Utility Multi-Programming System (MUMPS) operating system and require the following Department of Veterans Affairs (VA) software packages.

Package	Minimum Version Needed
Pharmacy Data Management	1.0
VA FileMan	22.0
Kernel	8.0
HealtheVet Web Services Client (HWSC)	1.0
Outpatient Pharmacy	7.0
Inpatient Medications	5.0
Order Entry/Results Reporting	3.0

The above software must be installed for these patches to be completely functional.

### 2.2 Required Patches

The following patches must already be installed on your system:

PSS\*1.0\*189

PSS\*1.0\*173

PSS\*1.0\*119

PSS\*1.0\*175

PSS\*1.0\*184

### **3. Installation Considerations/Restrictions**

This patch should be installed when Pharmacy applications are not in use, no other pharmacy patches are being installed, and when tasked jobs from Clinical Applications are not running.

Installation should also occur when CPRS usage is at a minimum, particularly medication activities.

Installation of this patch should take no longer than 5 minutes.

### **4. Installation Order**

1) PSS\*1.0\*201

### **5. Rollback/Backout Preparation**

The rollback/backout procedure for these patches should only occur when there is concurrence from the Enterprise Product Support and MOCHA development teams, because of the complexity and risk involved in a rollback/backout. Normal installation back-ups using KIDS will back up only Mumps routines. For all non-routine components of these builds, Enterprise Product Support will have a build available if needed. Make sure the 'Backup a Transport Global' step in section 6 of this document is followed, so you do have a backup of all the routines if needed.

If your site has local modifications to any of the following non-routine components of the builds, they will need to be backed up locally. Please contact Enterprise Product Support prior to installing if there are questions:

PSSJ SCHEDULE EDIT Input Template from the ADMINISTRATION SCHEDULE (#51.1) File

NAME (#.01) Field Data dictionary definition of the MEDICATION INSTRUCTION (#51) File

SYNONYM (#.5) Field Data dictionary definition of the MEDICATION INSTRUCTION (#51) File

### **6. Installation of PSS\*1.0\*201**

#### **6.1 Installation Steps**

## 1. LOAD TRANSPORT GLOBAL

-----

Choose the PackMan message containing this patch and invoke the  
INSTALL/CHECK MESSAGE PackMan option to unload the build.

## 2. Start up the Kernel Installation and Distribution System Menu [XPD MAIN]:

Edits and Distribution ...

Utilities ...

Installation ...

Select Kernel Installation & Distribution System Option: Installation

---

- 1 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

## 3. From the Installation menu, you may elect to use the following options (When prompted for the INSTALL NAME, enter PSS\*1.0\*201):

- a. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DD's 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, DD's, 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. Use the Install Package(s) option and select the package PSS\*1.0\*201.
- a. When prompted 'Want KIDS to INHIBIT LOGONs during the install? YES//', answer NO.
  - b. When prompted 'Want to DISABLE Scheduled Options and Menu Options and Protocols? YES//', answer NO.

### **6.1.1 Install Example:**

Select Programmer Options <TEST ACCOUNT> Option: KI Kernel Installation & Distribution System

Select Kernel Installation & Distribution System <TEST ACCOUNT> Option: Installation

Select Installation <TEST ACCOUNT> Option: Install Package(s)

Select INSTALL NAME: PSS\*1.0\*201    11/28/16@12:01:14  
=> PSS\*1.0\*201

This Distribution was loaded on Nov 28, 2016@12:01:14 with header of PSS\*1.0\*201

It consisted of the following Install(s):

PSS\*1.0\*201

Checking Install for Package PSS\*1.0\*201

Will first run the Environment Check Routine, PSS1P201

Install Questions for PSS\*1.0\*201



Incoming Files:

51 MEDICATION INSTRUCTION (Partial Definition)

Note: You already have the 'MEDICATION INSTRUCTION' File.

51.1 ADMINISTRATION SCHEDULE (Partial Definition)

Note: You already have the 'ADMINISTRATION SCHEDULE' File.

51.24 DOSE UNITS (including data)

Note: You already have the 'DOSE UNITS' File.

I will OVERWRITE your data with mine.

51.25 DOSE UNIT CONVERSION (including data)

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// SSH VIRTUAL TERMINAL

-----

Install Started for PSS\*1.0\*201 :

Nov 28, 2016@12:01:51

Build Distribution Date: Nov 28, 2016

Installing Routines:

Nov 28, 2016@12:01:51

Installing Data Dictionaries:

Nov 28, 2016@12:01:51

Installing Data:

Nov 28, 2016@12:01:52

Installing PACKAGE COMPONENTS:

Installing INPUT TEMPLATE

Nov 28, 2016@12:01:52

Running Post-Install Routine: POST^PSS1P201

Adding entries to APSP Intervention Type file

Updating Routine file...

Updating KIDS files...

PSS\*1.0\*201 Installed.

Nov 28, 2016@12:01:53

Not a production UCI

Install Completed



**Note: Installation of PSS\*1.0\*201 is completed. The following procedure is to be followed only if PSS\*1.0\*201 needs to be backed out.**

## **7. Rollback/Backout Procedure**

This last section of the document is only needed if there are major problems resulting from the installation of PSS\*1.0\*201, and there is concurrence from the Enterprise Product Support and MOCHA Development Teams that a rollback/backout must occur.

### **7.1 Rollback/Backout Requirements/Overview**

This section outlines the requirements for rollback/backout, along with an overview of the rollback build.

#### **7.1.1 Cross Reference check prior to rollback/backout installation**

The following two global listings must be done from programmer mode, along with the verification checks for each. If either of these verification checks fail, you must stop the rollback/backout process and contact Enterprise Product Support for assistance before continuing.

Global Listing 1:

Run the global lister from programmer mode as follows and verify that only 2 entries are returned, and that the first entry has a subscript ending in 1,0), and is equal to “51.113^B”, and that the next entry’s subscript ends in 3,0), and is equal to “51.1^D”:

Note: There are consecutive comma’s just before the last ‘0’ in the global listing

D ^%G

For help on global specifications DO HELP^%G

Global ^DD(51.113,.01,1,,0

^DD(51.113,.01,1,**1,0**)="51.113^B"

^DD(51.113,.01,1,**3,0**)="51.1^D"

## Global Listing 2:

Run the global lister from programmer mode as follows and verify that only 2 entries are returned, and that the first entry has a subscript ending in 1,0), and is equal to "51.33^B", and that the next entry's subscript ends in 3,0), and is equal to "51^D":

Note: There are consecutive comma's just before the last '0' in the global listing

D ^%G

For help on global specifications DO HELP^%G

```
Global ^DD(51.33,.01,1,,0
^DD(51.33,.01,1,1,0)="51.33^B"
^DD(51.33,.01,1,3,0)="51^D"
```

## 7.1.2 Software Required for Rollback/Backout

Make sure you have the following software available for the rollback/backout:

1. Routine backup from PSS\*1.0\*201 Install. This is not needed if you had no local mods to the routines in PSS\*1\*201, since the PSS\*1.0\*202 Rollback/Backout patch will contain these routines.
2. Your local backups (if backups were made for local modifications from section 5) of the PSSJ SCHEDULE EDIT Input Template, the Data Dictionary NAME (#.01) Field from the MEDICATION INSTRUCTION (#51) File, and the SYNONYM (#.5) Field from the MEDICATION INSTRUCTION (#51) File.
3. Rollback/Backout Patch PSS\*1.0\*202. This patch is available from Enterprise Product Support upon request.

## 7.1.3 Overview of Rollback/Backout Build

The PSS\*1.0\*202 Rollback/Backout patch will do the following:

PSS\*1.0\*202 will restore the following routines to their pre-PSS\*1.0\*201 state:

PSSDDUT  
PSSDSAPD  
PSSDSAPL  
PSSDSAPM  
PSSFDBDI  
PSSFDBRT  
PSSFILED  
PSSJEEU  
PSSJSV  
PSSMIRPT  
PSSSCHRP

PSS\*1.0\*202 will restore the following ADMINISTRATION SCHEDULE (#51.1) File Input Template to its pre-PSS\*1.0\*201 state:  
PSSJ SCHEDULE EDIT

PSS\*1.0\*202 will delete the following routines since they were new with PSS\*1.0\*201:

PSS1P201  
PSSDSUTL  
PSSOAS

PSS\*1.0\*202 will remove the "AF" cross reference from the NAME (#.01) Field of the MEDICATION INSTRUCTION (#51) File.

PSS\*1.0\*202 will restore the Input Transform and Executable Help of the NAME (#.01) Field of the MEDICATION INSTRUCTION (#51) File.

PSS\*1.0\*202 will restore the Input Transform and Executable Help of the SYNONYM (#.5) Field of the MEDICATION INSTRUCTION (#51) File.

PSS\*1.0\*202 will remove the Data Dictionaries and data of the DOSING CHECK FREQUENCY (#32) field, the DRUG(S) FOR DOSING CHK FREQ Fields (#51.321) SubFile, and OLD MED INSTRUCTION NAME(S) (#51.33) Subfile from the MEDICATION INSTRUCTION (#51) File.

PSS\*1.0\*202 will remove the Data Dictionaries and data of the DOSING CHECK FREQUENCY (#11) field, the DRUG(S) FOR DOSING CHK FREQ Fields (#51.111) SubFile, and OLD SCHEDULE NAME(S) (#51.113) Subfile from the ADMINISTRATION SCHEDULE (#51.1) File.

PSS\*1.0\*202 will delete the DOSE UNIT CONVERSION (#51.25) File Data Dictionary and data.

PSS\*1.0\*202 will revert the data stored in the first entry of the DOSE UNITS (#51.24) File.

Note: PSS\*1.0\*201 added new entries to the APSP INTERVENTION TYPE (#9009032.3) File, but PSS\*1.0\*202 will not delete these entries since entries in other files may already point to these new entries.

## **7.2 Rollback/Backout Considerations/Restrictions**

This rollback/backout should occur when Pharmacy applications are not in use, no other pharmacy patches are being installed and when tasked jobs from Clinical Applications are not running.

Rollback/Backout should also occur when CPRS usage is at a minimum, particularly medication activities.

The rollback/backout procedure should take no longer than 15 minutes.

## **7.3 Rollback/Backout Steps**

### **1. Install the PSS\*1.0\*202 RollBack/Backout patch as follows:**

#### **1.1. LOAD TRANSPORT GLOBAL**

-----

Choose the PackMan message containing PSS\*1.0\*202 and invoke the  
INSTALL/CHECK MESSAGE PackMan option to unload the build.

1.2. Start up the Kernel Installation and Distribution System Menu  
[XPD MAIN]:

Edits and Distribution ...  
Utilities ...  
Installation ...

Select Kernel Installation & Distribution System Option: Installation

---

- 1 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

1.3. From the Installation menu, you may elect to use the following options  
(When prompted for the INSTALL NAME, enter PSS\*1.0\*202):

- a. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DD's 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, DD's, 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.

1.4. Use the Install Package(s) option and select the package

PSS\*1.0\*202.

- a. When prompted 'Want KIDS to INHIBIT LOGONs during the install? YES//', answer NO.
- b. When prompted 'Want to DISABLE Scheduled Options and Menu Options and Protocols? YES//', answer NO.

PSS\*1.0\*202 installation capture:

Select Installation <TEST ACCOUNT> Option: 6 Install Package(s)

Select INSTALL NAME: PSS\*1.0\*202 2/17/17@13:54:22

=> PSS\*1\*202 TEST v4

This Distribution was loaded on Feb 17, 2017@13:54:22 with header of  
PSS\*1\*202 TEST v4

It consisted of the following Install(s):

PSS\*1.0\*202

Checking Install for Package PSS\*1.0\*202

Will first run the Environment Check Routine, PSS202EN

Are you sure you want to install PSS\*1\*202 to rollback patch PSS\*1\*201? NO// YES

Install Questions for PSS\*1.0\*202

Incoming Files:

## 51 MEDICATION INSTRUCTION (Partial Definition)

Note: You already have the 'MEDICATION INSTRUCTION' File.

## 51.24 DOSE UNITS (including data)

Note: You already have the 'DOSE UNITS' File.

I will REPLACE your data with mine.

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.

Enter a '^' to abort the install.

DEVICE: HOME// ;;99999 HOME (CRT)

-----

Install Started for PSS\*1.0\*202 :

Feb 17, 2017@13:55:07

Build Distribution Date: Feb 17, 2017

Installing Routines:

Feb 17, 2017@13:55:07

Installing Data Dictionaries:

Feb 17, 2017@13:55:07

Installing Data:

Feb 17, 2017@13:55:07

Installing PACKAGE COMPONENTS:

Installing INPUT TEMPLATE

Feb 17, 2017@13:55:07

Running Post-Install Routine: POST^PSS202RB



**\*\*Deleting executable help from NAME and SYNONYM fields in MEDICATION INSTRUCTION (#51) File\*\***

Done!

**\*\*Removing the 'AF' cross reference from the .01 field of the MEDICATION INSTRUCTION (#51) File\*\***

Done!

**\*\*Removing DOSING CHECK FREQUENCY (#32) field and data from the MEDICATION INSTRUCTION (#51) file\*\***

Done!

**\*\*Removing DRUG(S) FOR DOSING CHK FREQ (#51.321) multiple and OLD MEDICATION NAME(S) (#51.33) multiple from the MEDICATION INSTRUCTION (#51) file\*\***

Done!

**Removing DOSING CHECK FREQUENCY (#11) field and data from the ADMINISTRATION SCHEDULE (#51.1) file\*\***

Done!

**\*\*Removing DRUG(S) FOR DOSING CHK FREQ (#51.111) multiple and OLD MEDICATION NAME(S) (#51.113) multiple from the ADMINISTRATION SCHEDULE (#51.1) file\*\***

Done!

**Removing the DOSE UNIT CONVERSION (#51.25) file and data from system\*\***

Done!

Updating Routine file...

Updating KIDS files...

PSS\*1.0\*202 Installed.

Feb 17, 2017@13:55:07

No link to PACKAGE file

Install Completed

## 51 MEDICATION INSTRUCTION (Partial Definition)

Note: You already have the 'MEDICATION INSTRUCTION' File.

**2. If you had local modifications to the PSSJ SCHEDULE EDIT Input Template, or the Data Dictionary NAME (#.01) Field from the MEDICATION INSTRUCTION (#51) File, or the Data Dictionary SYNONYM (#.5) Field from the MEDICATION INSTRUCTION (#51) File, from Section 5, restore them now.**

**3. If you had local modifications to any of the routines exported in PSS\*1.0\*201, restore that backup now. If you did not have local modifications, no action is required for this step.**

\*\*\*Reminder - If you are restoring your back-up, if for some reason the PSS\*1.0\*201 build was installed multiple times, make sure you restore the back up from the first install.

**4. An Environment Check routine (PSS202EN) and an init routine (PSS202RB) came with the PSS\*1.0\*202 Rollback/Backout patch, and were marked to delete after install, but that deletion may be overridden by a Kernel parameter. So you may use the following option to verify that these routines have been deleted, and subsequently deleted them if desired, if they do still exist:**

Select Systems Manager Menu <TEST ACCOUNT> Option: PRogrammer Options

Select Programmer Options <TEST ACCOUNT> Option: ROutine Tools

Select Routine Tools <TEST ACCOUNT> Option: DElete Routines

ROUTINE DELETE

All Routines? No => No

Routine: PSS202EN

Routine: PSS202RB

Routine:

2 routines

2 routines to DELETE, OK: NO// Y

PSS202EN PSS202RB

Done.

## 5. Patch Installation Tracking:

Access VA FileMan and then follow these bolded steps to update the PACKAGE (#9.4) File to accurately reflect the current state of the account in regards to the PSS\*1.0\*201 patch.

VA FileMan 22.0

Select OPTION: **ENTER OR EDIT FILE ENTRIES** <Enter>

INPUT TO WHAT FILE: OPTION// **9.4** <Enter> PACKAGE (441 entries)

EDIT WHICH FIELD: ALL// **VERSION** <Enter> (multiple)

EDIT WHICH VERSION SUB-FIELD: ALL// **PATCH APPLICATION HISTORY** <Enter>  
(multiple)

EDIT WHICH PATCH APPLICATION HISTORY SUB-FIELD: ALL// **.01**<Enter> PATCH  
APPLICATION HISTORY

THEN EDIT PATCH APPLICATION HISTORY SUB-FIELD: <Enter>

THEN EDIT VERSION SUB-FIELD: <Enter>

THEN EDIT FIELD: <Enter>

Select PACKAGE NAME: **PSS** <Enter> PHARMACY DATA MANAGEMENT PSS

Select VERSION: 1.0// <Enter>

Select PATCH APPLICATION HISTORY: 201// **@** <Enter> {Note: If 201 is not the default patch  
number, enter 201. Once 201 is selected, delete the 201 entry.}

SURE YOU WANT TO DELETE THE ENTIRE '201' PATCH APPLICATION HISTORY? **Y**  
<Enter> (Yes)

{Note: The next 2 lines will not display if the default above had to be changed.}

Select PATCH APPLICATION HISTORY: 193 SEQ #174// <Enter>

PATCH APPLICATION HISTORY: 193 SEQ #174// <Enter>

Select PATCH APPLICATION HISTORY: <Enter>

Verify the Patch Application History was removed using the function identified below. If anything other than a '0' is displayed after any the command, please contact Enterprise Product Support.

CDEVISC1A2:MDEV C>W \$\$PATCH^XPDUTL("PSS\*1.0\*201") <Enter>

0

## Appendix: Acronyms

Term	Definition
CPRS	Computerized Patient Record System
DD	Data Dictionaries
FDB	First Databank
FTP	File Transfer Protocol
HWSC	Heath <u>e</u> Vet Web Services Client
IRMS	Information Resources Management Service
KIDS	Kernel Installation and Distribution System
MOCHA	Medication Order Check Healthcare Application
MUMPS	Massachusetts General Hospital Utility Multi-Programming System
NDF	National Drug File
PDM	Pharmacy Data Management
PECS	Pharmacy Enterprise Customization System
PEPS	Pharmacy Enterprise Product System
PMI	Patient Medication Information
VA	Department of Veterans Affairs
VDL	VA Software Document Library
VISTA	Veterans Health Information Systems and Technology Architecture