PHARMACY DATA MANAGEMENT

TECHNICAL MANUAL/ SECURITY GUIDE

Version 1.0
June 2012

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Department of Veterans Affairs
Product Development

Revision History

Each time this manual is updated, the Title Page lists the new revised date and this page describes the changes. If the Revised Pages column lists "All," replace the existing manual with the reissued manual. If the Revised Pages column lists individual entries (e.g., 25, 32), either update the existing manual with the Change Pages Document or print the entire new manual.

Date	Revised Pages	Patch Number	Description
8/18	4, 9, 12	PSS*1*219	Added new menu option under the 'Dosages' menu [PSS DOSAGES MANAGEMENT[
			Added new option 'Manage Buprenorphine Tx of Pain Dosage Forms' [PSS BUPRENORHINE DOSAGE FORMS].
			Added missing options to item multiple under the 'Dosages' menu option [PSS DOSAGES MANAGEMENT].
			Inserted verbiage for section 3.2 XPAR Parameters
			(B. Fischer, Dev; E. Cook, TW)
5/18	12-13, 30	PSS*1.0*203	Added XPAR Parameters section.
			Added new routines PSSDEEA, PSSP203, and PSSPRICE to Routines section.
			Added entry for PSS DEE AUDIT mail group.
			(R. Beltran-West, PM; E. Weaver, Tech Writer)
3/18	2, 11	PSS*1.0*211	Updated File List to include file #50.60699
			Updated Routine List with PSSNDSU and PSS211PO
			(J. Asel, N. Boston CTT&DM NDS Medications Dosage Form project)
02/18	12-13	PSS*1*178	Updated Routine List
			(S. Soldan, PM; L. Bertuzis, BA; B. Hyde, Tech Writer)
05/17	2, 12, **Error! Bookmark not defined.**, 34	PSS*1*201	Updated File List
			Updated Routine List
			Added new routine PSSOAS
			Updated File Security
			(H.Cross, PM; D. Skahn, Tech Writer; L. Bertuzis, Developer)
10/16	12 34-37	PSS*1*193	Added new routine PSSHLDFS to the Routines section.
			Added Appendix A for Pharmacy Interface Automation.
			(S. Soldan PM; R.Walters, Tech Writer)
4/16	i-ii, 11-12, 22-23	PSS*1*175	Add 2 new Routines: PSSCKOS & PSSDIUTX, Updated Additional Information section
			(H. Cross, PM; S. Heiress, Tech Writer; R. Ruzbacki, Developer)

Date	Revised Pages	Patch Number	Description
3/16	i-ii, 11-12	PSS*1*191	Updated Revision History Added new routines to routine list: PSS1P191, PSSHRHAI, PSSMRRDG, PSSMRRI (D. Connolly, PM; E. Phelps, Tech Writer)
3/14	All i - iii, 2, 7-13, 33, 37	PSS*1*172	Renumbered all pages. Updated Revision History and Table of Contents. Updated the Glossary section by putting definitions in a table format. New menu, options, file and routines added. (C. Powell, PM; K. Kapple, Tech Writer)
9/13	i - iii, 3, 7 – 13a, 30, 34 - 35	PSS*1*160	Updated Revision History Updated Table of Contents with Exported Options and Routines sections Added Lookup Dosing Check Info for Drug [PSS DRUG DOSING LOOKUP] OPTION to the Dosages [PSS DOSAGES MANAGEMENT] MENU OPTION and Drug Names with Trailing Spaces Report [PSS TRAILING SPACES REPORT]. Added PSS DOSING ORDER CHECKS option Also added the following routines to the routine list: PSS160EN PSS160PO PSSDRDOS PSSFDBDI PSSDSONF Added Web Servers, Web Services, and Cache Class section Added text to the Security Keys section (D. McCance, PM; K. Kapple, Tech Writer)

Date	Revised Pages	Patch Number	Description
01/13	i-iv, 3, 6-6b, 7, 10 - 13	PSS*1*164 PSS*1*169	Removed reference to patch PSS*1*146 in the menu options section Added Print Interface Data File option to the Pharmacy Data Management [PSS MGR] menu Added Check Drug Interaction option to the Pharmacy Data Management [PSS MGR] menu Moved Menu/Option items from page 7 to page 6a Added Print Interface Data File option to the PEPS Services menu under the Option Descriptions section Added Check Drug Interaction option to the Option Descriptions section Added routine PSSDIUTL Added Find Unmapped Local Possible Dosages option to the Stand Alone Options section (G. Tucker, PM; G. Scorca, Tech Writer)
06/12	All	PSS*1*146	Reissued document. Removed redundancies due to MOCHA V.1.0 incremental release; updated formatting and page numeration. (N. Goyal, PM; J. Owczarzak, Tech Writer)

Table of Contents

Contents

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1 Introduction

Pharmacy Data Management (PDM) provides tools for managing Pharmacy data. It includes tools for creating Pharmacy Orderable Items and maintaining files necessary for the Computer Patient Record System (CPRS). PDM consolidates tools for managing the various Pharmacy software products. It provides Pharmacy Supervisors, in one location, the capability to enter and edit data from the local DRUG file (#50) for all Pharmacy related packages.

The PDM Technical Manual is designed to acquaint the user with the various PDM options and offer specific guidance on the maintenance and use of the PDM package. Documentation concerning the PDM package, including any subsequent change pages affecting this documentation, can be found at the VistA Documentation Library (VDL) on the Veterans Administration Intranet.

Notations that will be used consistently throughout this PDM Technical Manual are outlined below.

- Menu options will be italicized.

    Example: The *Drug Enter/Edit* option permits you to enter or edit a drug.

- Screen prompts will be denoted with quotation marks around them.

    Example: the "SELECT DRUG" prompt will display next.

- Responses in bold face indicate user input.

    Example: DRUG GENERIC NAME: **ACETA**

- Text centered between bent parentheses represents a keyboard key that needs to be pressed in order for the system to capture a user response or move the cursor to another field.

    <Enter> indicates that the Enter key (or Return key on some keyboards) must be pressed.

    Example: Type **Y** for Yes or **N** for No and press **<Enter>**

    <Tab> indicates that the Tab key must be pressed.

    Example: Press **<Tab>** to move the cursor to the next field.

- Indicates especially important or helpful information.

- Options are locked with a particular security key. The user must hold the particular security key to be able to perform the menu option.

    Example: Without the PSXCOMPMGR key, the Consolidated Mail Outpatient Pharmacy options cannot be accessed.

- 📄 The page symbol indicates a referral to a diagram.

- **?, ??, ???** One, two or three question marks can be entered at any of the prompts for online help. One question mark elicits a brief statement of what information is appropriate for the prompt. Two question marks provide more help, plus the hidden actions, and three question marks will provide more detailed help, including a list of possible answers, if appropriate.

- **^** Up arrow (caret or a circumflex) and pressing **<Enter>** can be used to exit the present option.

2 File List

The following PDM files are exported with the PDM package.

File#	NAME	UPDATE DD	DATA COMES WITH FILE	USER OVERRIDE
50	DRUG	FULL	NO	
50.4	DRUG ELECTROLYTES	FULL	NO	
50.606	DOSAGE FORM	FULL	YES (MERGE)	NO
50.60699	MASTER DOSAGE FORM	FULL	NO	
50.7	PHARMACY ORDERABLE ITEM	FULL	NO	
51	MEDICATION INSTRUCTION	FULL	NO	
51.1	ADMINISTRATION SCHEDULE	FULL	YES (MERGE)	YES
51.2	MEDICATION ROUTES	FULL	YES (MERGE)	YES
51.23	STANDARD MEDICATION ROUTES	FULL	YES (OVERWRITE)	NO
51.24	DOSE UNITS	FULL	YES (OVERWRITE)	NO
51.25	DOSE UNIT CONVERSION	FULL	YES (OVERWRITE)	NO
51.5	ORDER UNIT	FULL	NO	
51.7	DRUG TEXT	FULL	YES (OVERWRITE)	YES
52.6	IV ADDITIVES	FULL	NO	
52.7	IV SOLUTIONS	FULL	NO	
53.47	INFUSION INSTRUCTIONS	FULL	NO	
54	RX CONSULT	FULL (SCREEN)	NO	
55	PHARMACY PATIENT (Partial DD)	PARTIAL	NO	
59.7	PHARMACY SYSTEM	FULL	NO	
59.73	VENDOR DISABLE/ENABLE	FULL	NO	
59.74	VENDOR INTERFACE DATA	FULL	NO	

The following non-PDM files are exported with the PDM package.

File#	NAME	UPDATE DD	DATA COMES WITH FILE	USER OVERRIDE
200	NEW PERSON (Partial DD)	PARTIAL	NO	
9009032.3	APSP INTERVENTION TYPE	FULL	YES (OVERWRITE)	NO
9009032.4	APSP INTERVENTION	FULL	NO	
9009032.5	APSP INTERVENTION RECOMMENDATION	FULL	YES (OVERWRITE)	NO

2.1　File Descriptions

This package requires the files listed below. Information about the files can be obtained by using the VA FileMan to generate a list of file attributes.

The Data Dictionaries (DDs) are considered part of the online documentation for this software application. Use the VA FileMan *List File Attributes* [DILIST] option*, under the *Data Dictionary Utilities* [DI DDU] option, to view/print the DDs.

2.2　Menu/Options

The PDM options listed below show the PSS MGR Menu structure.

Pharmacy Data Management [PSS MGR] menu:

> *CMOP Mark/Unmark (Single drug)* 🔑
> [PSSXX MARK]
>
> *Dosages…*
> [PSS DOSAGES MANAGEMENT]
>
> > *Dosage Form File Enter/Edit*
> > [PSS DOSAGE FORM EDIT]
> >
> > *Enter/Edit Dosages*
> > [PSS EDIT DOSAGES]
> >
> > *Most Common Dosages Report*
> > [PSS COMMON DOSAGES]
> >
> > *Noun/Dosage Form Report*
> > [PSS DOSE FORM/ NOUN REPORT]
> >
> > *Review Dosages Report*
> > [PSS DOSAGE REVIEW REPORT]
> >
> > *Local Possible Dosages Report*
> > [PSS LOCAL POSSIBLE DOSAGES]

Request Change to Dose Unit
[PSS DOSE UNIT REQUEST]

Lookup Dosing Check Info for Drug
[PSS DRUG DOSING LOOKUP]

Drug Names with Trailing Spaces Report
[PSS TRAILING SPACES REPORT]

Manage Buprenorphine Tx of Pain Dosage Forms
[PSS BUPRENORPHINE DOSAGE FORMS]

Drug Enter/Edit
[PSS DRUG ENTER/ EDIT]

Order Check Management…
[PSS ORDER CHECK MANAGEMENT]

Request Changes to Enhanced Order Check Database
[PSS ORDER CHECK CHANGES]

Report of Locally Entered Interactions
[PSS REPORT LOCAL INTERACTIONS]

Electrolyte File (IV)
[PSSJI ELECTROLYTE FILE]

Lookup into Dispense Drug File
[PSS LOOK]

Medication Instruction Management...
[PSS MED INSTRUCTION MANAGEMENT]

Medication Instruction File Add/Edit
[PSSJU MI]

Medication Instruction File Report
[PSS MED INSTRUCTION REPORT]

Medication Routes Management...
[PSS MEDICATION ROUTES MGMT]

Medication Route File Enter/Edit
[PSS MEDICATION ROUTES EDIT]

Medication Route Mapping Report
[PSS MED ROUTE MAPPING REPORT]

Medication Route Mapping History Report
[PSS MED ROUTE MAPPING CHANGES]

Request Change to Standard Medication Route
[PSS MEDICATION ROUTE REQUEST]

Default Med Route for OI Report
[PSS DEF MED ROUTE OI RPT]

Orderable Item Management…
[PSS ORDERABLE ITEM MANAGEMENT]

Edit Orderable Items
[PSS EDIT ORDERABLE ITEMS]

Dispense Drug/Orderable Item Maintenance
[PSS MAINTAIN ORDERABLE ITEMS]

Orderable Item/Dosages Report
[PSS ORDERABLE ITEM DOSAGES]

Patient Instructions Report
[PSS INSTRUCTIONS/ ITEMS REPORT]

Orderable Item Report
[PSS ORDERABLE ITEM REPORT]

Orderable Items that Require Removal Report
[PSS MRR ORDERABLE ITEMS RPT]

Orderable Items for High Risk\High Alert
[PSS HR/HA ORDERABLE ITEMS RPT]

Formulary Information Report
[PSSNFI]

Drug Text Management...
[PSS DRUG TEXT MANAGEMENT]

Drug Text Enter/Edit
[PSS EDIT TEXT]

Drug Text File Report
[PSS DRUG TEXT FILE REPORT]

Pharmacy System Parameters Edit
[PSS SYS EDIT]

Standard Schedule Management...
[PSS SCHEDULE MANAGEMENT]

Standard Schedule Edit
[PSS SCHEDULE EDIT]

Administration Schedule File Report
[PSS SCHEDULE REPORT]

Synonym Enter/Edit
[PSS SYNONYM EDIT]

Controlled Substances/PKI Reports…
[PSS CS/PKI REPORTS]

    DEA Spec Hdlg & CS Fed Sch Discrepancy
    [PSS DEA VS CS FED. SCH. DISCR.]

    Controlled Substances Not Matched to NDF
    [PSS CS NOT MATCHED TO NDF]

    CS (DRUGS) Inconsistent with DEA Spec Hdlg
    [PSS CS DRUGS INCON WITH DEA]

    CS (Ord. Item) Inconsistent with DEA Spec Hdlg
    [PSS CS (OI) INCON WITH DEA]

Send Entire Drug File to External Interface
[PSS MASTER FILE ALL]

IV Additive/Solution …
[PSS ADDITIVE/SOLUTION]

    IV Additive Report
    [PSS IV ADDITIVE REPORT]

    IV Solution Report
    [PSS IV SOLUTION REPORT]

    Mark PreMix Solutions
    [PSS MARK PREMIX SOLUTIONS]

Warning Builder
[PSS WARNING BUILDER]

Warning Mapping
[PSS WARNING MAPPING]

PEPS Services…
[PSS PEPS SERVICES]

    Check Vendor Database Link
    [PSS CHECK VENDOR DATABASE LINK]

    Check PEPS Services Setup
    [PSS CHECK PEPS SERVICES SETUP]

Schedule/Reschedule Check PEPS Interface
[PSS SCHEDULE PEPS INTERFACE CK]

Print Interface Data File
[PSS VENDOR INTERFACE REPORT]

Inpatient Drug Management…
[PSS INP MGR]

ADditives File
[PSSJI DRUG]

Dispense Drug Fields
[PSSJU DRG]

Dispense Drug/ATC Set Up
[PSSJU DRUG/ATC SET UP]

Edit Cost Data
[PSSJU DCC]

EDit Drug Cost (IV)
[PSSJI EDIT DRUG COST]

MARk/Unmark Dispense Drugs For Unit Dose
[PSSJU MARK UD ITEMS]

PRimary Solution File (IV)
[PSSJI SOLN]

Check Drug Interaction
[PSS CHECK DRUG INTERACTION]

Infusion Instruction Management …
[PSS INFINS MGR]

Infusion Instructions Add/Edit
[PSS INFINS ADED]

Infusion Instruction Report
[PSS INFINS RPT]

Orders for MRRs With Removal Properties
[PSS MRR ORDERS DIAGNOSTIC RPT]

Locked: PSXCMOPMGR

Without the PSXCMOPMGR key, the *CMOP Mark/Unmark (Single drug)* option will not appear on your menu.

3 Option Descriptions

The option descriptions below were retrieved from VA FileMan and provide the PDM options following the initial installation of the PDM package.

```
PSS MGR Pharmacy Data Management
This menu contains the options necessary to build and maintain the PHARMACY ORDERABLE ITEM file
(#50.7), and to also build and maintain the Med. Route/Instructions table.

ITEM: PSS DRUG ENTER/EDIT
ITEM: PSS LOOK
ITEM: PSSJI ELECTROLYTE FILE
ITEM: PSSXX MARK
ITEM: PSS SYS EDIT
ITEM: PSS ORDERABLE ITEM MANAGEMENT
ITEM: PSSNFI
ITEM: PSS SYNONYM EDIT
ITEM: PSS DOSAGES MANAGEMENT
ITEM: PSS CS/PKI REPORTS
ITEM: PSS MASTER FILE ALL
ITEM: PSS MEDICATION ROUTES MGMT
ITEM: PSS SCHEDULE MANAGEMENT
ITEM: PSS DRUG TEXT MANAGEMENT
ITEM: PSS MED INSTRUCTION MANAGEMENT
ITEM: PSS ORDER CHECK MANAGEMENT
ITEM: PSS ADDITIVE/SOLUTION
ITEM: PSS WARNING BUILDER
ITEM: PSS WARNING MAPPING
ITEM: PSS PEPS SERVICES
ITEM: PSS INP MGR
ITEM: PSS Check Drug Interaction
ITEM: PSS INFINS MGR
ITEM: PSS MRR ORDERS DIAGNOSTIC RPT
-----------------------------------------------------------------------
PSS DRUG ENTER/EDIT
Drug Enter/Edit

This option allows the user to edit fields for ALL pharmacy packages if they possess the proper
package key. It also will allow the user to match to NDF and Orderable Item.

TYPE: run routine    ROUTINE: PSSDEE
-----------------------------------------------------------------------
PSS LOOK
Lookup into Dispense Drug File

This option provides a report of all information regarding the dispense drug.

TYPE: run routine    ROUTINE: PSSLOOK
-----------------------------------------------------------------------
PSSJI ELECTROYLYTE FILE
Electrolyte File (IV)

This option will allow you to alter the contents of the DRUG ELECTORYLYTES file (#50.4). This is
the file that is pointed to by the ELECTROLYTE field in both the IV ADDITIVES (#52.6) and IV
SOLUTIONS (#52.7) files.
TYPE: run routine    ROUTINE: ELECTRO^PSSIVDRG
-----------------------------------------------------------------------
PSSXX MARK
CMOP Mark/Unmark (Single drug)

This option allows the user to mark/unmark a single drug for transmission to the CMOP.

TYPE: run routine    ROUTINE: PSSMARK
-----------------------------------------------------------------------
PSS SYS EDIT
Pharmacy System Parameters Edit

This option allows the user to edit the Pharmacy System parameters used in Pharmacy Data
Management.
```

```
TYPE: run routine    ROUTINE: PSSYSP
-------------------------------------------------------------------------
PSS ORDERABLE ITEM MANAGEMENT
Orderable Item Management

This is the sub-menu driver for Orderable Item maintenance.
ITEM: PSS MAINTAIN ORDERABLE ITEMS
ITEM: PSS EDIT ORDERABLE ITEMS
ITEM: PSS ORDERABLE ITEM DOSAGES
ITEM: PSS INSTRUCTIONS/ITEMS REPORT
ITEM: PSS ORDERABLE ITEM REPORT

TYPE: menu
-------------------------------------------------------------------------
PSSNFI
Formulary Information Report

This option provides a listing of pertinent pharmacy formulary information.

TYPE: run routine    ROUTINE: PSSNFI
-------------------------------------------------------------------------
PSS SYNONYM EDIT
Synonym Enter/Edit

The option provides easy access to update the synonym information for an entry in the local DRUG
file.

TYPE: run routine    ROUTINE: PSSSEE
-------------------------------------------------------------------------
PSS DOSAGES MANAGEMENT
Dosages

This menu option contains options that control the editing of dosages.
ITEM: PSS DOSAGE FORM EDIT
ITEM: PSS EDIT DOSAGES
ITEM: PSS COMMON DOSAGES
ITEM: PSS DOSE FORM/NOUN REPORT
ITEM: PSS DOSAGE REVIEW REPORT
ITEM: PSS LOCAL POSSIBLE DOSAGES
ITEM: PSS DOSE UNIT REQUEST
ITEM: PSS DRUG DOSING LOOKUP
ITEM: PSS TRAILING SPACES REPORT
ITEM: PSS BUPRENORPHINE DOSAGE FORMS

TYPE: menu
-------------------------------------------------------------------------
PSS CS/PKI REPORTS
Controlled Substances/PKI Reports

PKI POST-INSTALL REPORTS PROVIDED AS OPTIONS.
ITEM: PSS DEA VS CS FED. SCH. DISCR.
ITEM: PSS CS NOT MATCHED TO NDF
ITEM: PSS CS DRUGS INCON WITH DEA
ITEM: PSS CS (OI) INCON WITH DEA

TYPE: menu
-------------------------------------------------------------------------
PSS MASTER FILE ALL
Send Entire Drug File to External Interface

TYPE: run routine    ROUTINE: PSSMSTR
-------------------------------------------------------------------------
PSS MEDICATION ROUTES MGMT
Medication Routes Management
This Sub-Menu contains options related to Medication Routes in both the MEDICATION ROUTES (#51.2)
File and the STANDARD MEDICATION ROUTES (#51.23) File.

ITEM: PSS MEDICATION ROUTES EDIT
ITEM: PSS MED ROUTE MAPPING REPORT
ITEM: PSS MED ROUTE MAPPING CHANGES
```

```
ITEM: PSS MEDICATION ROUTE REQUEST
ITEM: PSS DEF MED ROUTE OI RPT

TYPE: menu
-----------------------------------------------------------------------------
PSS SCHEDULE MANAGEMENT
Standard Schedule Management

This Sub-Menu contains options needed for Schedule maintenance.

ITEM: PSS SCHEDULE EDIT
ITEM: PSS SCHEDULE REPORT

TYPE: menu
-----------------------------------------------------------------------------
PSS DRUG TEXT MANAGEMENT
Drug Text Management

This Sub-Menu contains options concerning Drug Text.

ITEM: PSS EDIT TEXT
ITEM: PSS DRUG TEXT FILE REPORT

TYPE: menu
-----------------------------------------------------------------------------
PSS MED INSTRUCTION MANAGEMENT
Medication Instruction Management

The Sub-Menu contains options related to the MEDICATION INSTRUCTION (#51) File.

ITEM: PSSJU MI
ITEM: PSS MED INSTRUCTION REPORT

TYPE: menu
-----------------------------------------------------------------------------
PSS ORDER CHECK MANAGEMENT
Order Check Management

This is the sub-menu for functionality related to managing medication order checks.

ITEM: PSS ORDER CHECK CHANGES
ITEM: PSS REPORT LOCAL INTERACTIONS

TYPE: menu
-----------------------------------------------------------------------------
PSS ADDITIVE/SOLUTION
IV Additive/Solution

This Sub-Menu contains options that can be used to run reports from the IV ADDITIVES (#52.6) File
and the IV SOLUTIONS (#52.7) File. It also provides an option to edit the PREMIX (#18) Field in
the IV SOLUTIONS (#52.7) File.

ITEM: PSS IV ADDITIVE REPORT
ITEM: PSS IV SOLUTION REPORT
ITEM: PSS MARK PREMIX SOLUTIONS

TYPE: menu
-----------------------------------------------------------------------------
PSS WARNING BUILDER
Warning Builder

This option will allow you to define a custom warning label list containing entries from both the
new warning label source and the old Rx Consult file entries.


TYPE: run routine    ROUTINE: PSSWRNB
-----------------------------------------------------------------------------
PSS WARNING MAPPING
Warning Mapping
```

This option is used to match an entry from the old Rx Consult file to the new commercial data source warning file to aid in using the Warning Builder (to identify local warnings that do not have an equivalent entry in the new commercial data source). The user can also enter a Spanish translation for an Rx Consult file entry, if desired, but whenever possible, the new commercial data source's warnings (English or Spanish depending on the patient setting) should be used.

TYPE: run routine   ROUTINE: EDIT^PSSWMAP

PSS PEPS SERVICES
PEPS

ITEM: PSS CHECK VENDOR DATABASE LINK
ITEM: PSS CHECK PEPS SERVICES SETUP
ITEM: PSS SCHEDULE PEPS INTERFACE CK
ITEM: PSS VENDOR INTERFACE REPORT

TYPE: menu

PSS INP MGR
Inpatient Drug Management

This Sub-Menu contains options related to INPATIENT DRUG MANAGEMENT.

ITEM: PSSJI DRUG
ITEM: PSSJU DRG
ITEM: PSSJU DRUG/ATC SET UP
ITEM: PSSJU DCC
ITEM: PSSJI EDIT DRUG COST
ITEM: PSSJU MARK UD ITEMS
ITEM: PSSJI SOLN

TYPE: Menu

PSS CHECK DRUG INTERACTION
Check Drug Interaction

This menu contains options pertaining to maintaining pharmacy
data files, creating Pharmacy Orderable Items, and the Medication Route/
Instructions table among other assorted functions.

TYPE: run routine ROUTINE: PSSDIUTL

PSS INFINS MGR
Infusion Instruction Management

Menu containing options related to the INFUSION INSTRUCTIONS (#53.47) file.

TYPE: menu

PSS INFINS ADED
Infusion Instructions Add/Edit

Allows users to enter and edit abbreviations and expansions in the INFUSION INSTRUCTIONS (#53.47) file.

TYPE: run routine ROUTINE: ENII^PSSFILED

PSS INFINS RPT
Infusion Instructions Report

Provides a report of entries from the INFUSION INSTRUCTIONS(#53.47) file

TYPE: run routine ROUTINE: EN^PSSIIRPT

PSS MRR ORDERS DIAGNOSTIC RPT
Orders for MRRs With Removal Properties

3.1   Orderable Items Option

```
This option enables you to determine which active orders contain Orderable Items that have the
new "Prompt for Removal in BCMA" flag value set to 1, 2 or 3 that need to be discontinued and
entered as New (not copied, edited or renewed) AFTER the installation of Pharmacy Inpatient
Medications PSJ*5.0*315. Failure to re-create these orders could result in confusing information
to display on the BCMA VDL if displayed alongside newer MRR orders that do have the updated
removal information.

TYPE: run routine   ROUTINE: EN^PSSMRRDG
```

3.2   XPAR Parameters

Patch PSS*1*219 adds XPAR parameter PSS BUPRENORPHINE PAIN DFS to the PARAMETER
DEFINITION file (#8989.51). See the Pharmacy Data Management Manager's User Manual for
information on how this parameter is used. To set the parameter:

1. Log in to VistA with programmer or Pharmacy Informaticist access.

2. At the "Select OPTION NAME:" prompt, type XPAR MENU TOOLS and then press Enter.

3. At the "Select General Parameter Tools Option:" prompt, type EP and then press Enter.

4. At the "Select PARAMETER DEFINITION NAME:" prompt, type PSS BUPRENORPHINE PAIN
    DFS and then press Enter.

5. At the "Select Sequence:" prompt, type the number sequence number and then press Enter.

6. At the "Sequence: #//", press Enter.

7.   At the "Dosage Form:" prompt, select a dosage form and then press Enter.

Patch PSS*1*203 adds XPAR parameter PSS DRUG AUDIT RETENTION MOS to the PARAMETER
DEFINITION file (#8989.51). See the *Pharmacy Data Management Manager's User Manual* for
information on how this parameter is used. To set the parameter, follow the steps below. You must be a
VistA programmer, Pharmacy Informaticist, Clinical Application Coordinator (CAC), or other user with
access to the General Parameter Tools [XPAR MENU TOOLS] option in VistA.

1. Log in to VistA.

2. At the "Select OPTION NAME:" prompt, type XPAR MENU TOOLS and then press Enter.

3. At the "Select General Parameter Tools Option:" prompt, type EP and then press Enter.

4. At the "Select PARAMETER DEFINITION NAME:" prompt, type PSS DRUG AUDIT
    RETENTION MOS and then press Enter.

5. At the "Drug Audit Retention MOS:" prompt, type the number of retention months and then press
    Enter.

3.3   Routines

The following routines are used by the Pharmacy Data Management package.

PSS0052	PSS0093	PSS0114	PSS102RP	PSS117EN	PSS117PO
PSS127PI	PSS127PT	PSS129EN	PSS147EN	PSS147PO	PSS160EN
PSS160PO	PSS172PO	PSS1P135	PSS1P154	PSS1P178	PSS1P201
PSS1P23	PSS1P43	PSS211PO	PSS32P3	PSS32P5	PSS50
PSS50A	PSS50A1	PSS50AQM	PSS50ATC	PSS50B	PSS50B1
PSS50B2	PSS50C	PSS50C1	PSS50CMP	PSS50D	PSS50DAT
PSS50DOS	PSS50E	PSS50F	PSS50F1	PSS50LAB	PSS50NDF
PSS50P4	PSS50P66	PSS50P7	PSS50P7A	PSS50TMP	PSS50WS
PSS51	PSS51P1	PSS51P15	PSS51P1A	PSS51P1B	PSS51P1C
PSS51P2	PSS51P5	PSS51P5	PSS52P6	PSS52P6A	PSS52P6B
PSS52P7	PSS52P7A	PSS54	PSS55	PSS551	PSS55MIS
PSS59P7	PSS70UTL	PSS781	PSSADDIT	PSSADRPT	PSSAUTL
PSSBPSUT	PSSCHENV	PSSCHPRE	PSSCHPST	PSSCLDRG	PSSCLINR
PSSCLOZ	PSSCMOPE	PSSCOMMN	PSSCPRS	PSSCPRS1	PSSCREAT
PSSCSPD	PSSCUSRQ	PSSDACS	PSSDAWUT	PSSDDUT	PSSDDUT2
PSSDDUT3	PSSDEE	PSSDEE1	PSSDEE2	PSSDEEA	PSSDELOI
PSSDENT	PSSDFEE	PSSDGUPD	PSSDI	PSSDIN	PSSDINT
PSSDIUTL	PSSDOS	PSSDOSED	PSSDOSER	PSSDOSLZ	PSSDOSRP
PSSDRINT	PSSDRDOS	PSSDSAPA	PSSDSAPD	PSSDSAPI	PSSDSAPK
PSSDSAPL	PSSDSAPM	PSSDSBBP	PSSDSBDA	PSSDSBDB	PSSDSBPA
PSSDSBPB	PSSDSBPC	PSSDSBPD	PSSDSDAT	PSSDSEXC	PSSDSEXD
PSSDSEXE	PSSDSFDB	PSSDSONF	PSSDSPON	PSSDSPOP	PSSDSUTA
PSSDSUTL	PSSDTR	PSSEC123	PSSENV	PSSENVN	PSSFDBDI
PSSFDBRT	PSSFIL	PSSFILED	PSSFILES	PSSGENM	PSSGIU
PSSGMI	PSSGS0	PSSGSGUI	PSSGSH	PSSHELP	PSSHFREQ
PSSHL1	PSSHLDFS	PSSHLSCH	PSSHLU	PSSHRCOM	PSSHRENV
PSSHREQ	PSSHRIT	PSSHRPST	PSSHRQ2	PSSHRQ22	PSSHRQ23
PSSHRQ24	PSSHRQ25	PSSHRQ2D	PSSHRQ2O	PSSHRVAL	PSSHRVL1
PSSHTTP	PSSHUIDG	PSSIIRPT	PSSJEEU	PSSJORDF	PSSJSPU
PSSJSPU0	PSSJSV	PSSJSV0	PSSJXR	PSSJXR1	PSSJXR10
PSSJXR11	PSSJXR12	PSSJXR13	PSSJXR14	PSSJXR15	PSSJXR16
PSSJXR17	PSSJXR18	PSSJXR19	PSSJXR2	PSSJXR20	PSSJXR21
PSSJXR22	PSSJXR23	PSSJXR24	PSSJXR25	PSSJXR26	PSSJXR27
PSSJXR28	PSSJXR29	PSSJXR3	PSSJXR30	PSSJXR31	PSSJXR32
PSSJXR33	PSSJXR34	PSSJXR4	PSSJXR5	PSSJXR6	PSSJXR7
PSSJXR8	PSSJXR9	PSSLAB	PSSLDALL	PSSLDEDT	PSSLDOSE
PSSLOCK	PSSLOOK	PSSMARK	PSSMATCH	PSSMEDCH	PSSMEDRQ
PSSMEDRT	PSSMEDX	PSSMIRPT	PSSMONT	PSSMRTUP	PSSMRTUX
PSSMSTR	PSSNCPDP	PSSNDCUT	PSSNDSU	PSSNFI	PSSNFIP
PSSNOD2	PSSNOUNR	PSSNTEG	PSSOAS	PSSOICT	PSSOICT1
PSSOIDOS	PSSOPKI	PSSOPKI1	PSSORPH	PSSORPH1	PSSORPHZ
PSSORUTE	PSSORUTL	PSSORUTZ	PSSOUTSC	PSSP110	PSSP130
PSSP134	PSSP203	PSSPCH13	PSSPI89	PSSPKIPI	PSSPKIPR
PSSPNSRP	PSSPO129	PSSPOI	PSSPOIC	PSSPOID1	PSSPOID2
PSSPOID3	PSSPOIDT	PSSPOIKA	PSSPOIM	PSSPOIM1	PSSPOIM2

PSSPOIM3	PSSPOIMN	PSSPOIMO	PSSPOIMP	PSSPOST	PSSPOST2
PSSPOST5	PSSPOST6	PSSPRE	PSSPRE38	PSSPRETR	PSSPRICE
PSSPRMIX	PSSPRUTL	PSSQOC	PSSQORD	PSSREF	PSSREMCH
PSSRXACT	PSSSCHED	PSSSCHMS	PSSSCHRP	PSSSEE	PSSSUTIL
PSSSXRD	PSSSYN	PSSTRENG	PSSTXT	PSSUNMSI	PSSUTIL
PSSUTIL1	PSSUTIL3	PSSUTLA1	PSSUTLA2	PSSUTLAZ	PSSUTLPR
PSSUTLPZ	PSSVIDRG	PSSVX6	PSSVX61	PSSVX62	PSSVX63
PSSVX64	PSSVX65	PSSVX66	PSSWMAP	PSSWRNA	PSSWRNB
PSSWRNC	PSSWRNE	PSSXDIC	PSSXREF	PSSXRF1	PSSYSP

3.4 Exported Options

3.4.1 Stand-Alone Options

The following is a list of all stand-alone options that are **NOT** exported as part of the main PDM menu [PSS MGR]:

Other Language Translation Setup
[PSS OTHER LANGUAGE SETUP]

Drug Inquiry (IV)
[PSSJI DRUG INQUIRY]

Electrolyte File (IV)
[PSSJI ELECTROLYTE FILE]

Enable/Disable Vendor Database Link
[PSS ENABLE/DISABLE DB LINK]

Add Default Med Route
[PSS ADD DEFAULT MED ROUTE]

Find Unmapped Local Possible Dosages
[PSS LOCAL DOSAGES EDIT ALL]

The *Enable/Disable Vendor Database Link* option exists **ONLY** as a way for technical personnel to turn on/off the database connection if required for debugging. Normally, it is enabled and the Vendor Database updates are performed centrally on the MOCHA Servers, not at the individual sites. It is **NOT** exported as part of the main PDM menu [PSS MGR].

In the rare case where this option is used and the database link is disabled, NO drug-drug interaction, duplicate therapy, or dosing order checks will be performed in Pharmacy or in the Computerized Patient Record System (CPRS).

3.5 Protocols

NAME: PSS EXT MFU CLIENT
 DESCRIPTION: This protocol will be used as the ACK from the external

interface for a MFN_M01 message.

NAME: PSS EXT MFU SERVER
 DESCRIPTION: This protocol will be used to send event notification and data
 when new drugs are added to the DRUG file (#50) and when certain fields are
 updated in the same file. This information will be sent to the automated
 dispensing machines through HL7 V.2.4 formatted messages.

NAME: PSS HUI DRUG UPDATE
 DESCRIPTION: This protocol will be used to send event notification and data
 when new drugs are added to the Drug file (#50) and when certain fields are
 updated in same file.

NAME: PSS MED ROUTE RECEIVE
 DESCRIPTION: This protocol processes updates to the Standard Medication
 Routes (#51.23) File.

3.6   Bulletins

NAME: PSS FDB INTERFACE
SUBJECT: ORDER CHECK DATABASE DOWN
RETENTION DAYS: 3
PRIORITY?: YES

NAME: PSS FDB INTERFACE RESTORED
SUBJECT: ORDER CHECK DATABASE IS BACK UP
RETENTION DAYS: 3
PRIORITY?: YES

3.7   Web Servers

PEPS

3.8   Web Services

DOSING_INFO
DRUG_INFO
ORDER_CHECKS

3.9   Cache Class

XMLHandler

3.10   HL7 Messaging with an External System

A protocol, PSS HUI DRUG UPDATE, is exported and has been created to generate HL7 messages when
new drugs are added to the DRUG file (#50) and existing entries are updated. This protocol is exported
with the text "DELETE ONLY TO SEND DRUG UPDATE MESSAGES" in the DISABLE field (#2) of
the PROTOCOL file (#101). To activate the sending of these HL7 messages, the text from the DISABLE
field (#2) of the PROTOCOL file (#101) must be deleted and at least one receiving protocol added as a

subscriber. The drug data elements included in the HL7 message are defined in the following HL7 Drug Message Segment Definition table.

3.10.1 HL7 Drug Message Segment Definition Table

When the PSS HUI DRUG UPDATE protocol is enabled, the following table defines the data elements sent in each segment of the HL7 drug message.

Segment	Piece	Field Name	HL7 TBL # or Data Type	Description
MSH	1	|	ST	Field Separator
	2	^~\&	ST	Encoding Characters
	3	Pharmacy	No suggested value	Sending Application
	9	MFN	0076	Message Type
MFI	1	50^DRUG^99PSD	0175	Master File ID
	3	UPD	0178	File-Level Event Code
	6	NE	0179	Response Level Code
MFA	1	MUP/MAD	0180	UPDATE/ADD
MFE	1	MUP/MAD	0180	UPDATE/ADD
	4	IEN^DRUG NAME^99PSD		File 50 Entry
ZPA	1	NDC	ST	National Drug Code
	2	LOCAL NON-FORMULARY	CE	If "1" true
	3	INACTIVE DATE	DT	HL7 Format (YYYYMMDD)
	4	APPLICATION PACKAGE USE	ST	Used by what packages
	5	MESSAGE	ST	Info on drug
	6	VA CLASSIFICATION	ST	VA Class
	7	DEA SPECIAL HDLG	ST	How drug is dispense based on DEA codes
	8	FSN	ST	Federal Stock #
	9	WARNING LABEL	ST	Drug Warnings for patient
	10	VISN NON-FORMULAR	CE	If '1' true

ZPB	1	PHARMACY ORDERABLE ITEM	CE	IEN^OI tied to dispense drug^PSD50.7
	2	DOSAGE FORM	ST	IEN^Dosage Form associated with OI^PSD50.606

	3	MEDICATION ROUTE	ST	IEN^Med Route associated with OI^PSD51.2
	4	PSNDF VA PRODUCT NAME ENTRY	CE	IEN^VA PRODUCT NAMES^PSD50.68
	5	DISPENSE UNIT	ST	Dispense Unit for a drug
	6	CMOP DISPENSE	CE	1 or 0
	7	OP EXTERNAL DISPENSE	CE	1 or 0
	8	EXPIRATION DATE	DT	HL7 Format (YYYYMMDD)
	9	LAB TEST MONITOR	CE	IEN^Lab Test^LAB60
ZPC	1	SPECIMEN TYPE	CE	IEN^ SPECIMEN TYPE^LAB61
	2	MONITOR ROUTINE	ST	Program that runs to find lab test and results
	3	LAB MONITOR MARK	CE	If '1' true
	4	STRENGTH	NM	Dose of drug
	5	UNIT	CE	IEN^Unit of measure^PSD50.607
	6	PRICE PER ORDER UNIT	NM	
	7	PRICE PER DISPENSE UNIT	NM	
[{ZPD}]	1	SYNONYM	ST	Trade Name
	2	NDC CODE	ST	National Drug Code
	3	INTENDED USE	CE	CE^INTENTED USE
	4	VSN	ST	Vendor Stock Number
	5	ORDER UNIT	CE	IEN^ABBREVIATION^EXPANSION ^PSD51.5
	6	PRICE PER ORDER UNIT	NM	
	7	DISPENSE UNITS PER ORDER UNIT	NM	
	8	PRICE PER DISPENSE UNIT	NM	
	9	VENDOR	ST	Vendor
[{ZPE}]	1	ACTIVITY LOG	DT	HL7 Format YYYYMMDDHHMM[SS]-ZZZZ
	2	REASON	CE	E^EDIT
	3	INITIATOR OF ACTIVITY	CE	IEN^NEW PERSON^VA200
	4	FIELD EDITED	ST	
	5	NEW VALUE	ST	
	6	NDF UPDATE	ST	
[{ZPF}]	1	DISPENSE UNITS PER	NM	

		DOSE		
	2	DOSE	NM	
	3	PACKAGE	CE	CE^PACKAGE(S)
	4	BCMA UNITS PER DOSE	NM	
[{ZPG}]	1	CLOZAPINE LAB TEST	CE	IEN^LAB TEST^LAB60
	2	MONITOR MAX DAYS	NM	
	3	SPECIMEN TYPE	CE	IEN^ SPECIMEN TYPE^LAB61
	4	TYPE OF TEST	CE	1^WBC or 2^ANC
[{ZPH}]	1	LOCAL POSSIBLE DOSAGE	ST	FREE TEXT
	2	PACKAGE	CE	CE^PACKAGE(S)
	3	BCMA UNITS PER DOSE	NM	

Two protocols, PSS EXT MFU CLIENT and PSS EXT MFU SERVER, are exported and have been created to generate HL7 messages when new drugs are added to the DRUG file (#50) and existing entries are updated. These protocols can only be activated by setting the following parameters in the OUTPATIENT SITE file (#59):

- AUTOMATED DISPENSE field (#105) needs to be set to **2.4**.
- ENABLE MASTER FILE UPDATE field (#105.2) needs to be set to **YES**.
- LOGICAL LINK field (#2005) needs to be set to **PSO DISP**.
- DISPENSE DNS NAME field (#2006) needs to be set to the dispensing system DNS name (for example, **dispensemachine1.vha.med.va.gov**).
- DISPENSE DNS PORT field (#2007) needs to be set to the dispensing system port number.

Specific Transaction

The Pharmacy/Treatment Encoded Order Message is as follows:

```
        MFN                 Master File Notification Message
        MSH                 Message Header
        MFI                 Master File Identifier
        {MFE                Master File Entry
        {{ZPA}              Drug File Information
         {RXD}              Pharmacy/Treatment Dispense
         {OBR}}             Observation Request
        }
```

Example:

```
MSH|~^\&|PSS VISTA|521~FO-BIRM.VHA.MED.VA.GOV~DNS|PSS
DISPENSE|~DISPENSE1.VHA.MED.VA.GOV:9300~DNS|20030701||MFN~M01~MFN_M01|10001|P
|2.4|||AL|AL
```

```
MFI|50~DRUG~99PSD||UPD|||NE
MFE|MUP|||PROPANTHELINE 15MG TAB
ZPA|PROPANTHELINE 15MG TAB|N|LFN~Local Non-Formulary~Pharm Formulary
Listing|20031226|Take with food|DE200|6|P|50~6505-00-960-8383~LPS50|8~NO
ALCOHOL~LPS54|229~Bacitracin~LPSD50.7|3~CAP,ORAL~LPSD50.606|15~IV
PUSH~LPSD51.2|3643~ATROPINE SO4 0.4MG TAB~LPSD50.68|OP~OP
Dispense~99OP|20030830|9~Rubella~LLAB60|72~Hair of
Scalp~LLAB61|PSOCLO1|N|100|20~MG~LPSD50.607|4.28&USD~UP|15.64&USD~UP|TAB|2|BL
UE HOUSE VENDOR|0010-0501-33|TRADENAME
RXD||||1||||||1||||~P&200&LPSD50.0903|||||||||||||O
OBR||||1102~ACETAZOLAMIDE~LLAB60|||||||||||||70&NECK&LLAB61|||||||||WBC|||7
```

3.10.2 HL7 Drug Message Segment Definition Table

When the PSS EXT MFU SERVER protocol is enabled, the following table defines the data elements sent in each segment of the HL7 drug message.

Segments Used in the Master File Update Message

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
MSH	1	1	ST	R			Field Separator	|
	2	4	ST	R			Encoding Characters	~^\&
	3	180	HD	R		0361	Sending Application	PSS VISTA
	4	180	HD	R		0362	Sending Facility – station ID and station DNS name	521~FO-BIRM.MED.VA.GOV~DNS
	5	180	HD	R		0361	Receiving Application	PSS DISPENSE
	6	180	HD	R		0362	Receiving Facility – DNS name and port of dispensing machine	~DISPENSE.VHA.MED.VA.GOV:9300~DNS
	7	26	TS				Date/Time of Message	20040405152416
	9	15	CM	R		0076	Message Type	MFN_M01
	10	20	ST	R			Message Control ID	10001
	11	3	PT	R		0103	Processing ID	P
	12	3	VID	R		0104	Version ID	2.4
	15	2	ID			0155	Accept Ack. Type	AL
	16	2	ID			0155	Application Ack Type	AL
MFI	1	250	CE	R		0175	Master File Identifier	50^DRUG^99PSD
	3	3	ID	R		0178	File-Level Event Code	UPD
	6	2	ID	R		0179	Response Level Code	NE
MFE	1	3	ID	R		0180	Record-Level Event Code	MUP
	4	200	Varies	R			Primary Key Value – MFE	PROPANTHELINE 15MG TAB
ZPA	1	200	Varies	R			Primary Key Value – ZPA	PROPANTHELINE 15MG TAB
	2	1	ID	R		0136	Is Synonym	N
	3	200	CE	R			Formulary Listing	LFN~Local Non-Formulary~Pharm Formulary Listing

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	4	10	DT	O			Inactive Date	20031226
	5	200	ST	O			Drug Message	Take with Food
	6	30	ST	O			Drug Classification	DE200
	7	10	ST	O			DEA-Schedule Code	6
	8	1	ST	O			DEA-Drug Type	P
	9	100	CE	R			Stock Number	50~6505-00-960-8383~LPS50
	10	100	CE	O			Warning Label	8~NO ALCOHOL~LPS54
	11	100	CE	O			Pharmacy Orderable Item	229~Bacitracin~LPSD50.7
	12	100	CE	O			Dosage Form	3~CAP,ORAL~LPSD50.606
	13	100	CE	O			Medication Route	15~IV PUSH~LPSD51.2
	14	100	CE	O			Drug Name Identifiers	3643~ATROPINE SO4 0.4MG TAB~LPSD50.68
	15	100	CE	O			Dispense Flags	OP~OP Dispense~99OP
	16	15	DT	O			Drug Expiration Date	20030830
	17	100	CE	O			Lab Test Monitor	9~Rubella~LLAB60
	18	100	CE	O			Specimen Type	72~Hair of Scalp~LLAB61
	19	10	CE	O			Monitor Routine	PSOCLO1
	20	1	ID	O			Lab Monitor Mark	N
	21	50	NM	O			Strength	100
	22	250	CE	R			Unit	20~MG~LPSD50.607
	23	50	CP	R			Price Per Order Unit	4.28&USD~UP
	24	50	CP	R			Price Per Dispense Unit	15.64&USD~UP
	25	25	ST	O			Dispense Unit	TAB
	26	50	NM	O			Dispense Units Per Order Unit	2
	27	50	ST	O			Vendor	BLUE HOUSE VENDOR
	28	12	ST	O			NDC Code	0010-0501-33
	29	25	ST	O			Intended Use	TRADE NAME
RXD	4	20	NM	R			Actual Dispense Amount	1
	8	20	NM	R			Dispense Notes	1
	12	10	CQ	O			Total Daily Dose	~P&200&LPSD50.0903
	24	2	ID	R			Dispense Package Method	O
OBR	4	250	CE	O			Universal Service Identifier	1102~ACETAZOLAMIDE~LLAB60
	15	300	CM	O			Specimen Source	70&NECK&LLAB61
	24	3	ID	R			Diagnostic Serv Sect ID	WBC

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	27	200	TQ	O			Quantity/Timing	7

Notes Pertaining to Some of the Data Elements:

[MSH-3] Sending Application is the station ID along with the DNS name of the sending facility.

[MSH-5] Receiving Application is the DNS name and DNS port number of the dispensing application.

[MSH-10] Message Control ID is the number that uniquely identifies the message. It is returned in MSA-2 of the dispense completion message.

[MFI-1] Master File Identifier is hard-coded to 50~DRUG~99PSD.

[MFE-1] Record-Level Event Code can be either MUP for Update or MAD for Add.

[MFE-4] Primary Key Value – MFE is the GENERIC NAME field (#.01) from the DRUG file (#50).

[ZPA-1] Primary Key Value – ZPA will be the generic name of the drug first and then all synonyms will follow in consecutive ZPA segments.

[ZPA-2] Is Synonym is set to Y or N depending on whether the primary key is a synonym.

[ZPA-3] Formulary Listing will contain LFN and/or VISN is the formulary is not to appear on the Local or VISN formulary.

[ZPA-9] Stock Number is the FSN field (#6) from the DRUG file (#50) or the VSN field (#400) from the SYNONYM subfile (#50.1) of the PRESCRIPTION file (#50).

[ZPA-15] Dispense Flags will indicate if this drug may be dispensed to an external interface and if it is marked to be dispensed at a Consolidated Outpatient Pharmacy (CMOP). If both are yes, the answer would be OP~OP Dispense~Pharm dispense^CMOP~CMOP dispense~Pharm dispense flag.

[ZPA-29] Intended User will be TRADE NAME, QUICK CODE, DRUG ACCOUNTABILITY or CONTROLLED SUBSTANCES.

[RXD-4] Actual Dispense Amount is the BCMA UNITS PER DOSE field (#3) from the POSSIBLE DOSAGES file (#50.0903).

[RXD-9] Dispense Notes is the DISPENSE UNITS PER DOSE field (#.01) from the POSSIBLE DOSAGES file (#50.0903).

[RXD-12] Total Daily Dose will be either P for Possible Dosages or LP for Local Possible Dosages.

[OBR-4] Universal Service Identifier is used for Clozapine Lab Test.

[OBR-15] Specimen Source is used for Clozapine Specimen Type.

[OBR-24] Diagnostic Serv Sect ID is used for Clozapine Type of Test.

[OBR-27] Quantity/Timing is used to encode Monitor Max days from the CLOZAPINE LAB TEST file (#50.02).

3.11   Data Archiving and Purging

There are no archiving and purging functions necessary with this release of the PDM package.

3.12   Callable Routines/Entry Points/Application Program Interfaces (APIs)

APIs, callable routines, and entry points can be viewed by first choosing the *DBA* menu option on FORUM and then choosing the *Integration Agreements Menu* option:
IAs   INTEGRATION CONTROL REGISTRATIONS ...

For detailed information on all supported Pharmacy Data Management APIs, see the *Pharmacy Re-Engineering (PRE) Application Program Interface (API) Manual* posted on the VistA Documentation Library (VDL).

3.13   Medication Routes

The following paragraphs provide an explanation of medication route information.

For Outpatient Pharmacy & Inpatient Medication Unit Dose Orders:

The Default med route will be returned from the DEFAULT MED ROUTE field (#.06) of the PHARMACY ORDERABLE ITEM file (#50.7) if it is populated, or from the POSSIBLE MED ROUTES multiple (#50.711) of the PHARMACY ORDERABLE ITEM file (#50.7) if it is populated with a single entry and the USE DOSAGE FORM MED ROUTE LIST field (#10) is set to "NO." The med route selection list will be returned with entries from the POSSIBLE MED ROUTES multiple (#50.711) if the USE DOSAGE FORM MED ROUTE LIST field (#10) is set to "NO." Otherwise, the med routes associated with the orderable item's dosage form, MED ROUTE FOR DOSAGE FORM multiple (#50.6061) of the DOSAGE FORM file (#50.606), will be returned.

For IV Fluids Orders:

If there is only one orderable item in the IV order request, the same logic as defined above under 'For Outpatient Pharmacy & Inpatient Medication Unit Dose Orders' will be used to return the default med route from the DEFAULT MED ROUTE field (#.06) and the med route selection list from the PHARMACY ORDERABLE ITEM file (#50.7).

If there is more than one orderable item on the IV order request, the PHARMACY ORDERABLE ITEM file (#50.7) will be checked for each orderable item for the default med route and med route selection list as defined above under 'For Outpatient Pharmacy & Inpatient Medication Unit Dose Orders.' If there is a default med route common with every orderable item, that default med route will be returned. Similarly, the list of possible med routes that are common with every orderable item will be returned.

3.14   Administration Scheduling

The following rules apply to administration scheduling.

If there is a duplicate schedule, and if one of them contains ward-specific administration times for the ward location of the patient, the schedule returned for inclusion in the array of selectable schedules in CPRS will be the one with the ward-specific administration times.

If no duplicate has ward-specific administration times for the ward location of the patient, the schedule with the lowest IEN number will be returned. If both (or more than one) duplicate schedules have ward-specific administration times for the ward location of the patient, the schedule with the lowest IEN number in the ADMINISTRATION SCHEDULE file #51.1 will be the schedule in the array returned to CPRS.

3.15   External Relations

Integration Agreements

IAs can be viewed by first choosing the *DBA* option on FORUM and then the *Integration Agreement*s *Menu* option.

Example: DBA Option

```
Select Primary Menu Option: DBA


Select DBA Option: INTEGration Agreements Menu


Select Integration Agreements Menu Option:  Custodial Package Menu

Select Custodial Package Menu Option:  ACTIVE by Custodial Package
Select PACKAGE NAME: PHARMACY DATA MANAGEMENT     PSS
DEVICE: HOME//
```

3.16   Internal Relations

All PDM options can function independently.

3.17   Package-Wide Variables

There are no package-wide variables for this version.

4   Package Requirements

The PDM module relies on, at least, the following external packages to run effectively.

Package	Minimum version needed
National Drug File	V. 4.0
Outpatient Pharmacy	V. 7.0
Inpatient Medications	V. 5.0
Kernel	V. 8.0
VA FileMan	V. 22.0

Package	Minimum version needed
HealtheVet Web Services Client (HWSC)	V. 1.0
VistALink	V. 1.6

4.1   Additional Information

Standards and Conventions Committee (SACC) Exemptions

The following PSS routines will generate errors reported in the XINDEX utility from using non-standard M syntax, due to the need to consume external web services.

PSSFDBDI
PSSFDBRT
PSSHRPST
PSSHTTP

The following waiver permits the use of this non-standard M syntax to allow the use of Cache features to consume external web services. This waiver is located in the HealtheVet Web Services Client (HWSC) Developer Guide.

OITIMB33554520 - Migration from M2J to VistA Web Services Client (VWSC)

Keywords	M2J,VWSC,J2EE
Decision Date	12/1/2006
Decision Type	Architecture
Decision Making Body	HPMO CCB
Description	On December 1, 2006, the HPMO Change Control Board voted to accept the migration of VistA from the current M2J solution to the VistA Web Services Client (VWSC). This decision was made for a number of reasons, in particular the fact that the existing 12-year-old M standard has been surpassed by evolving technologies and can no longer address today's requirements. Additionally, we are no longer required to support DSM, previously the primary VistA/M hosting environment. Today, all sites are standardized on Caché 5.0 systems. As such, approvals were granted as follows: Waiver of the requirement to adhere to the existing 1995 M standard (that does not address the implementation of web services); Implementation of an industry standard such as web services for VistA/M to J2EE calls using Caché's built in HTTP and web service client feature; Use of VWSC as an interim solution that ensures continuity of integration between VistA/M applications and migrated J2EE applications as HealtheVet evolves by enabling the consumption of external web services by legacy VistA applications; and Deprecation of the original M2J approach.
Rationale	This architectural change allows for a number of improvements, including better scalability, resilience, and performance. Deployment and configuration is far less complicated for administrators, and the APIs can be used by a variety of clients rather than solely M-based. It also places responsibility for support, maintenance, etc. with the vendor rather than OI&T.
Record Type	TDR
State	Approved
Date Submitted	2/14/2007 8:37:24 AM

Supporting Documentation

Link	Document Title	Description	Date
Download	Migration from M2J to VistA Web Services Client	Email notification alerting of the decision	2/13/2007

	(VWSC) Email Notification		
Download	VWSC Architecture	Proposed architecture view of VWSC	12/1/2006
Download	VWSC Proposed View	Proposed logical view of VistA Web Services Client (VWSC)	12/1/2006

Cross-Reference Logic to Keep Orderable Items Up To Date

With the introduction of PSS*1*38, a new process for keeping Orderable Items updated was implemented. The process is explained in detail in the section below.

Anytime specific fields are edited, or a pointer to the PHARMACY ORDERABLE ITEM file (#50.7) changes, the Orderable Item (OI) must be updated and sent to CPRS. Two different situations can precipitate these changes. Both situations are explained in detail here.

The first situation occurs when a field is edited that can possibly affect the status of the Orderable Item, but no Orderable Item pointers change. In this situation, the old Orderable Item is the same as the new Orderable Item. In these cases, the kill logic will be the same as the set logic. The kill and set logic will simply pass in the Orderable Item to the routine that checks all IV Additives/IV Solutions/Dispense Drugs matched to the Orderable Item, does all the necessary updates (Inactivation date, Supply flag, Non-formulary, Base, Additive), and then sends the Master File Update to CPRS on that Orderable Item. This type of update occurs when the fields listed below are edited.

File 50:   DEA Special Hdlg
File 50:   Inactivation Date
File 50:   Application Packages' Use
File 50:   Local Non-Formulary
File 50.7: Inactivation Date
File 52.6: Inactivation Date
File 52.6: Used in IV Fluid Order Entry
File 52.7: Inactivation Date
File 52.7: Used in IV Fluid Order Entry

The second situation occurs when pointers to the PHARMACY ORDERABLE ITEM file (#50.7) are changed. IV Additives, IV Solutions and the Dispense Drug always point to the same Orderable Item. That Orderable Item is, in turn, pointed to by the IV Additive or IV Solution. So, the fields that may be affected include the Orderable Item pointer in the DRUG file (#50) and the Generic Drug pointer in the IV ADDITIVES file (#52.6) and the IV SOLUTIONS file (#52.7).

File 50:   Orderable Item Pointer
File 52.6: Generic Drug Pointer
File 52.7: Generic Drug Pointer

The initial change is to make the Orderable Item pointers in the IV ADDITIVES file (#52.6) and the IV SOLUTIONS file (#52.7) uneditable. The software will now control those pointers.

Scenario 1: The Orderable Item Pointer Is Changed For A Dispense Drug

In Example 1, the Orderable Item pointer is changed for a Dispense Drug. In this case, any Orderable Item pointers must be updated for entries in the IV ADDITIVES file (#52.6) and the IV SOLUTIONS file (#52.7) that point to that Dispense Drug. After these pointers have been updated, the Orderable Item must be updated for the old Orderable Item with what will point to it after the matching. The Orderable Item

must also be updated for the new Orderable Item after the matching. And these pharmacy Orderable Item updates must be sent to CPRS as part of the Master File Update. To accomplish this, the following steps must be completed:

1. Add a Cross-Reference on the Orderable Item pointer in the DRUG file (#50) that will hard set one Cross-Reference in the ORDERABLE ITEM file (#50.7) and two Cross-References in the DRUG file (#50) as follows.

   Orderable Item: ^PS(50.7,"A50",Orderable Item IEN, Dispense Drug IEN)=""
   Drug file: ^PSDRUG("A526", Dispense Drug IEN, Additive IEN,)=""
   Drug file: ^PSDRUG("A527", Dispense Drug IEN, Solution IEN,)=""

   The Orderable Item Cross-Reference allows access to Dispense Drugs matched to an Orderable Item. The two DRUG file (#50) Cross-References allow access to Solutions and Additives linked to Dispense Drugs. An "A50" Cross-Reference will also be added on the NAME field (# .01) of the PHARMACY ORDERABLE ITEM file (#50.7) containing a "Quit" command for the set and kill logic for documentation purposes only.

   When the Orderable Item pointer of a Dispense Drug changes, only one Cross-Reference is needed on that field to perform the following actions:

- **Kill Logic:** This command performs a hard kill of the "A50" Cross-Reference in the PHARMACY ORDERABLE ITEM file (#50.7) for that Dispense Drug using old value (X) and DA, where X equals the OI IEN and DA equals the Dispense Drug IEN. The two DRUG file (#50) Cross-References will not change.

   After the hard kill is completed, a Master File Update is performed for the old Orderable Item. The logic for all Dispense Drugs/IV Additives/IV Solutions matched to the Orderable item is executed by looping the three Cross-References to find all entries in all three files matched to the Orderable Item. Also in the Kill logic, the Orderable Item pointer is set to null and the Orderable Item pointer Cross-Reference is killed for any IV Additives or IV Solutions matched to the Dispense Drug.

- **Set Logic:** Using the New Value (X), where X equals the OI IEN, the "A50" Cross-Reference is hard set in the PHARMACY ORDERABLE ITEM file (#50.7). The Master File Update is then performed for the new Orderable Item. The logic for all Dispense Drugs/IV Additives/IV Solutions matched to the Orderable Item is executed by looping on the three Cross-References to find all entries in all three files matched to the Orderable Item. The Orderable Item pointer and the Orderable Item pointer Cross-References are then hard set for all IV Additives and IV Solutions that have been matched to the Dispense Drug with new value (X).

   Example 1:

Additives/Solution	Dispense Drugs:	Orderable Item:
IEN 3 points to =>	IEN 100 points to =>	500
IEN 4 points to =>	IEN 100 points to =>	500
IEN 5 points to =>	IEN 100 points to =>	500
IEN 10 points to =>	IEN 200 points to =>	500

   Cross-References are: ^PS(50.7,"A50",500,100)=""
                                ^PS(50.7,"A50",500,200)=""

```
^PSDRUG("A526",100,3)=""
^PSDRUG("A526",100,4)=""
^PSDRUG("A526",100,5)=""
^PSDRUG("A527",200,10)=""
```

Orderable Item 500 is pointed to by Dispense Drugs 100 and 200, and by IV Additives 3, 4, and 5, and IV Solution 10.

(If the LOCAL NON-FORMULARY field (#51) in the DRUG file (#50) is edited, the software will obtain the OI pointer 500 and execute the OI logic by looping on 500 in the "A50" Cross-Reference of the PHARMACY ORDERABLE ITEM file (#50.7). As it references each entry, the OI logic is executed by looping on the "A526" and "A527" Cross-references on the DRUG file (#50) before going to the next Orderable Item pointer in the "A50" Cross-reference in the PHARMACY ORDERABLE ITEM file (#50.7). For Example 1 above, the software will find in the first "A50" Cross-Reference for OI 500, Dispense Drug 100. The software will then loop through all the "A526" and "A527" Cross-References in the DRUG file (#50) to find the IV Additives 3, 4 and 5. In the second "A50" Cross-Reference for OI 500, Dispense Drug 200 is identified. The software will again loop through any existing "A526" and "A527" Cross-references in the DRUG file (#50) to find IV Solution 10.

If the Orderable Item pointer for Dispense Drug 100 is edited from 500 to 600, the Cross-Reference in the DRUG file (#50) the following logic will be performed.

- **Kill Logic**

  Kill the Cross-Reference ^PS(50.7,"A50",500,100) using DA and old value (X=500), where DA equals the IEN of the Dispense Drug and X equals the IEN of the Orderable Item

  The Cross-References would now be as follows.
```
^PS(50.7,"A50",500,200)=""
^PSDRUG("A526",100,3)=""
^PSDRUG("A526",100,4)=""
^PSDRUG("A526",100,5)=""
^PSDRUG("A527",200,10)=""
```

  The 'A50" and "A527" Cross-references now identify Orderable Item 500 to be pointed to by Dispense Drug 200 and IV Solution 10. The Orderable Item update for OI 500 is then performed for Dispense Drug 200 and IV solution 10.

  While still in the Kill logic, the PHARMACY ORDERABLE ITEM field (#15) in the IV ADDITIVES file (#52.6) is set to null for IV Additives 3, 4, and 5. This action results in the deletion of Cross-References on the PHARMACY ORDERABLE ITEM field (#15) of the IV ADDITIVES file (#52.6).

- **Set Logic**

  The "A50" Cross-Reference in the PHARMACY ORDERABLE ITEM file (#50.7) for the new Orderable Item 600 is set as follows.

```
^PS(50.7,"A50",500,200)=""
^PS(50.7,"A50",600,100)=""
```

```
^PSDRUG("A526",100,3)=""
^PSDRUG("A526",100,4)=""
^PSDRUG("A526",100,5)=""
^PSDRUG("A527",200,10)=""
```

The Orderable Item logic is executed on the new OI 600 by looping on the "A50" Cross-Reference, to get the Dispense Drug pointer of 100. The software then loops through any existing "A526" and "A527" Cross-References to get IV Additives 3, 4 and 5.

The value of the PHARMACY ORDERABLE ITEM (#15) field in the IV ADDITIVES file (#52.6) for IV Additives 3, 4, and 5 is set to 600. Existing Cross-References are also set to reflect this change.

Scenario 2: The Dispense Drug Pointer Is Edited For An IV Additive Or IV Solution

If the Dispense Drug is changed for an IV Additive or IV Solution, the Cross-References on the PHARMACY ORDERABLE ITEM field in the IV ADDITIVES file (#52.6) and IV SOLUTION file (#52.7) will perform the following set and kill logic.

- **Kill Logic**

  First, the "A526" or "A527" Cross-References in the DRUG file (#50) will be killed. Then, using DA, which is equal to the Orderable Item IEN, the software will get the old Orderable Item pointer value and perform the Orderable Item logic on the old Orderable Item. Subsequently, the value in the PHARMACY ORDERABLE ITEM field for the IV Additive and/or IV Solution will be set to null and the existing Cross-References on this field will be killed.

- **Set Logic**

  First, the "A526" or "A527" Cross-References in the DRUG file (#50) will be set. Then Using X, which is equal to the Dispense Drug IEN, the software will identify the new Orderable Item in the DRUG file (#50) and perform the OI logic on that Orderable Item. The PHARMACY ORDERABLE ITEM field in the IV ADDITIVES file (#52.6) and IV SOLUTION file (#52.7) will be set to the new value and existing Cross-References will be also set.

Users can first check the new Dispense Drug, and if the Orderable Item does not change by rematching the Additive/Solution to the new Dispense Drug, they can choose the QUIT command.

Example 2:

IV Additives/IV Solution	Dispense Drugs	Orderable Item
IEN 3 points to =>	IEN 100 points to =>	500
IEN 4 points to =>	IEN 100 points to =>	500
IEN 5 points to =>	IEN 100 points to =>	500
IEN 10 points to =>	IEN 200 points to =>	500

Cross-References
```
^PS(50.7,"A50",500,100)=""
^PS(50.7,"A50",500,200)=""
^PSDRUG("A526",100,3)=""
```

```
^PSDRUG("A526",100,4)=""
^PSDRUG("A526",100,5)=""
^PSDRUG("A527",200,10)=""
```

For example, the USED IN IV FLUID ORDER ENTRY field (#17) in the IV ADDITIVES file (#52.6) for IV Additive 3 could be edited. The Orderable Item that the IV Additive points to in this case, is 500. Both the Kill and Set logic (same logic) for the OI 500 is updated by looping through the "A50" Cross-Reference in the PHARMACY ORDERABLE ITEM file (#50.7), finding each Dispense Drug IEN, and going through the "A526" and "A527" Cross-References in the DRUG file (#50) for that Dispense Drug. This process is then repeated for the next Dispense drug identified in the "A50" Cross-Reference

If the DRUG file (#50) pointer for IV Additive 3 were changed from Dispense Drug 100 to Dispense Drug 900, the Cross-Reference on the Dispense Drug Pointer would be killed.

- **Kill Logic**

  Using old value of X, which equals the Dispense Drug 100 and DA, which equals the IV ADDITIVE 3, the software would kill Cross-Reference ^PSDRUG("A526",100,3) with the following Cross-References remaining.

  ```
  ^PS(50.7,"A50",500,100)=""
  ^PS(50.7,"A50",500,200)=""
  ^PSDRUG("A526",100,4)=""
  ^PSDRUG("A526",100,5)=""
  ^PSDRUG("A527",200,10)=""
  ```

  Using DA, the software would get the old Orderable Item pointer of 500 and execute the Orderable Item logic for Dispense Drugs 100, IV Additives 4 and 5, Dispense Drug 200, and IV Solution 10.

  The value for the PHARMACY ORDERABLE ITEM field (#15) in the IV ADDITIVES file (#52.6) would be set to null and Cross-References on this field would be deleted.

- **Set Logic**

  Using new value X, where X equals the Dispense Drug 900, the software would set the new "A526" Cross Reference as ^PSDRUG("A526",900,3)="", The updated Cross-References are as follows
  ```
  ^PS(50.7,"A50",500,100)=""
  ^PS(50.7,"A50",500,200)=""
  ^PSDRUG("A526",100,4)=""
  ^PSDRUG("A526",100,5)=""
  ^PSDRUG("A526",900,3)=""
  ^PSDRUG("A527",200,10)=""
  ```

  Using new value of X, where X equals the Dispense Drug 900, the software gets the Orderable Item pointer for Dispense Drug 900, in this example, Orderable Item 2000. The applicable Cross-References would be the following.

  ```
  ^PS(50.7,"A50",500,100)=""
  ^PS(50.7,"A50",500,200)=""
  ^PS(50.7,"A50",2000,900)=""
  ^PSDRUG("A526",100,4)=""
  ^PSDRUG("A526",100,5)=""
  ```

```
^PSDRUG("A526",900,3)=""
^PSDRUG("A527",200,10)=""
```

The software performs the OI update for Orderable Item 2000, with Dispense Drug 900 and IV Additive 3. The PHARMACY ORDERABLE ITEM field (#15) value in the IV ADDITIVES file (#52.6) is set to 2000. The corresponding Cross-References on this field are also set.

5 Security Management

The PDM package does not contain any VA FileMan security codes except for programmer security (@) on the data dictionaries for the PDM files. Security with respect to standard options in the module is implemented by carefully assigning options to users and by the use of security keys.

5.1 Mail Groups

Patch PSS*1*147 creates a new mail group called PSS ORDER CHECKS. The mail group description below was retrieved from VA FileMan. The IRM Pharmacy support and Pharmacy ADPACs (and backups) should at a minimum be added to this mail group.

```
NAME: PSS ORDER CHECKS
TYPE: public
DESCRIPTION:   Members of this mail group will receive various notifications
that impact Enhanced Order Checks (drug-drug interactions, duplicate therapy
and dosing checks) introduced with PRE V. 0.5 utilizing a COTS database.
```

Patch PSS*1*203 creates a new mail group called PSS DEE AUDIT. The mail group description below was retrieved from VA FileMan. This mail group should include anyone who should be notified when changes are made to the DRUG file (#50). For more information on this mail group, refer to the *Pharmacy Data Management Manager's User Manual*.

```
NAME: PSS DEE AUDIT
TYPE: public
DESCRIPTION:   Members of this mail group will receive audit notifications
when certain fields are viewed or changed in the DRUG file (#50).
```

5.2 Alerts

There are no alerts in the PDM package.

5.3 Bulletins

Bulletins are 'Super' messages. Each Bulletin has a text and a subject just like a normal message. But embedded within either the subject or the text can be variable fields that can be filled in with parameters. There is also a standard set of recipients in the form of a Mail Group that is associated with the bulletin.

Bulletins are processed by MailMan either because of either a special type of cross reference or a direct call in a routine. The interface for the direct call is described in the documentation on programmer entry points. FileMan sets up code that will issue a bulletin automatically when the special cross reference type is created. In either case the parameters that go into the text and/or the subject make each bulletin unique.

NAME: PSS FDB INTERFACE
SUBJECT: ORDER CHECK DATABASE DOWN
RETENTION DAYS: 3
PRIORITY?: YES

NAME: PSS FDB INTERFACE RESTORED

SUBJECT: ORDER CHECK DATABASE IS BACK UP
RETENTION DAYS: 3
PRIORITY?: YES

5.4   Remote Systems

PDM does not transmit data to any remote system or facility.

5.5   Archiving/Purging

There are no archiving and purging functions necessary with the PDM package.

5.6   Contingency Planning

Sites utilizing the PDM package should develop a local contingency plan to be used in the event of product problems in a live environment. The facility contingency plan must identify the procedure for maintaining functionality provided by this package in the event of system outage. Field station Information Security Officers (ISOs) may obtain assistance from their Regional Information Security Officer (RISO).

5.7   Interfacing

There are no specialized products embedded within or required by the PDM package.

5.8   Electronic Signatures

No electronic signatures are utilized in the PDM package.

5.9   Locked Menu Options

This section relates only to options that are locked. For a complete listing of The PDM options listed in the PSS MGR Menu structure, refer to the Menu/Options section of this document.

Locked: PSXCMOPMGR
Without the PSXCMOPMGR key, the *CMOP Mark/Unmark (Single drug)* option will not appear on your menu.

5.10   Security Keys

The PSS ORDER CHECKS security key is used to control access to the Enable/Disable Dosing Order Checks [PSS DOSING ORDER CHECKS] option.

In order to mark or edit package specific fields in a DRUG file (#50) entry, the user must hold the corresponding package key. The keys are assigned for the individual packages. PDM does not export any of these keys.

Package	Keys
Outpatient Pharmacy	PSORPH
Inpatient Medications	PSJU MGR
Inpatient Medications	PSJI MGR
Automatic Replenishment/Ward Stock	PSGWMGR
Drug Accountability/Inventory Interface	PSAMGR
Drug Accountability/Inventory Interface	PSA ORDERS
Controlled Substances	PSDMGR
National Drug File	PSNMGR
Consolidated Mail Outpatient Pharmacy	PSXCMOPMGR

Patch PSS*1*147 exports the following four security keys, that will be used by the Pharmacy Enterprise Customization System (PECS) application. Only a few users who will be granted access to the PECS application will need one or more keys assigned based on their role. Assignment of these keys should be by request only. The security key descriptions were retrieved from VA FileMan.

NAME: PSS_CUSTOM_TABLES_ADMIN
```
DESCRIPTIVE NAME: ADMINISTRATOR
DESCRIPTION:   This key is used by the Pharmacy Enterprise Customization System (PECS)
web application. Holders of this key will have the ability to perform configuration
and administrative tasks for the application. They will also have querying
capabilities.
```

NAME: PSS_CUSTOM_TABLES_APPROVER
```
DESCRIPTIVE NAME: APPROVER
DESCRIPTION:   This key is used by the Pharmacy Enterprise Customization System (PECS)
web application.  Holders of this key will have the same privileges as those with the
PSS CUSTOM TABLES REQUESTOR key. Additional capabilities will be to review, approve,
delete or reject customization requests and to view and generate reports.
```

NAME: PSS_CUSTOM_TABLES_REL_MAN
```
DESCRIPTIVE NAME: RELEASE MANAGER
DESCRIPTION:   This key is used by the Pharmacy Enterprise Customization System (PECS)
web application. Holders of this key will have the ability to create file updates for
FDB database tables to be applied at local facilities. They will also have querying
capabilities.
```

NAME: PSS_CUSTOM_TABLES_REQUESTOR
```

DESCRIPTIVE NAME: REQUESTOR
DESCRIPTION:   This key is used by the Pharmacy Enterprise Customization System (PECS)
web application.  Holders of this key will be allowed to enter customization requests,
display and view the status of their own requests. They will also have limited
querying capabilities
```

Five security keys were introduced with Patch PSS*1*167 that will be used to authenticate users accessing the Pharmacy Product System-National (PPS-N) using Kernel Authentication and Authorization for J2EE (KAAJEE). Users requiring access to the Pharmacy Product System-National should be assigned these keys as appropriate to their level of approved access. PPS-N is a reengineered product that will replace the National Drug File Management System (NDFMS). Site users may be assigned the PSS_PPSN_VIEWER key only. The other four security keys are only to be assigned to members of the National NDF Management Group.

NAME: PSS_PPSN_MANAGER
```
DESCRIPTIVE NAME: PPS-National Manager
DESCRIPTION:    This role can perform the operational functions in PPS-N but doesn't
have the administrative rights of the PPS-N National Supervisor.
```

NAME: PSS_PPSN_MIGRATOR
```
DESCRIPTIVE NAME: PPS-National Migration User
DESCRIPTION:   This role has the ability to run the PPS-N Migration.
```

NAME: PSS_PPSN_SECOND_APPROVER
```
DESCRIPTIVE NAME: PPS-National Second Approver
DESCRIPTION:   This role has the ability to do a second approval on items that are in
the pending second approval state.
```

NAME: PSS_PPSN_SUPERVISOR
```
DESCRIPTIVE NAME: PPS-National Supervisor
```

```
DESCRIPTION:   This role has the ability to perform all actions in the PPS-N
application, including Administration and Configuration.
```

```
NAME: PSS_PPSN_VIEWER
DESCRIPTIVE NAME: PPS-National Viewer
DESCRIPTION:   This role has the ability to log in and view items in the PPS-N
Application but cannot modify any of the items.
```

5.11   File Security

Information about all files, including these, can be obtained by using the VA FileMan to generate a list of file attributes.

5.11.1 PDM Files

File Numbers	File Names	DD	RD	WR	DEL	LAYGO
50	DRUG	@				
50.4	DRUG ELECTROLYTES	@				
50.606	DOSAGE FORM	@		@	@	@
50.7	PHARMACY ORDERABLE ITEM	@				
51	MEDICATION INSTRUCTION	@				
51.1	ADMINISTRATION SCHEDULE	@				
51.2	MEDICATION ROUTES	@				
51.23	STANDARD MEDICATION ROUTES	@	Pp	@	@	@
51.24	DOSE UNITS	@	Pp	@	@	@
51.25	DOSE UNIT CONVERSION	@	Pp	@	@	@
51.5	ORDER UNIT					
51.7	DRUG TEXT	@				
52.6	IV ADDITIVES	@				
52.7	IV SOLUTIONS	@				
53.47	INFUSION INSTRUCTIONS					
54	RX CONSULT					
55	PHARMACY PATIENT (Partial DD)	@	P			
59.7	PHARMACY SYSTEM	^		^	^	^
59.73	VENDOR DISABLE/ENABLE	@	@	@	@	@
59.74	VENDOR INTERFACE DATA	@	@	@	@	@

5.11.2 Non-PDM Files

File Numbers	File Names	DD	RD	WR	DEL	LAYGO
200	NEW PERSON (Partial DD)	#	#	#	#	#
9009032.3	APSP INTERVENTION TYPE					
9009032.4	APSP INTERVENTION					
9009032.5	APSP INTERVENTION RECOMMENDATION					

Please refer to the "Sending Security Codes." section of the Kernel V. 8.0 Systems Manual for more information concerning installation of security codes.

5.12   References

There are no regulations or directives related to the Pharmacy Data Management package. Additional manuals related to the Pharmacy Data Management package can be found at the VistA Documentation Library (VDL) on the Internet.

6 Appendix A: Pharmacy Interface Automation

Introduction appendix provides a brief description of the new features and functions of the Pharmacy Interface Automation project. This projects consist of multiple patches, which must be installed for the functionality to perform.

The Clinical Ancillary Services (CAS) Development Delivery of Pharmacy enhancements (DDPE) Pharmacy Interface Automation project supports the initiative to create an automated interface between the Pharmacy Automated Dispensing Equipment (PADE) used in the inpatient and outpatient care settings and VistA Pharmacy and Admission Discharge Transfer (ADT) applications. This will allow VA health care users the ability to access, transmit, receive alerts, and generate reports on medication transactions.

Pharmacy Interface Automation is a vital enhancement to the medication transaction functions of the PADE. It allows pharmacists to access dispensing equipment remotely; keep a perpetual inventory of all medication received, dispensed, and wasted; alert the pharmacy of medication removed from the devices without orders; and establishes monitors for potentially inappropriate electronic pharmacy transactions.

This product shall run on standard hardware platforms used by the Department of Veterans Affairs (VA) Healthcare facilities.

The minimum required VistA software is:

Package	Minimum Version Needed
Adverse Reaction Tracking (ART)	4.0
BCMA	3.0
Computerized Patient Record System (CPRS)	3.0
Controlled Substance	3.0
Drug Accountability	3.0
VA FileMan	22.0
HL7	2.4
Inpatient Medications (IP)	5.0
Kernel	8.0
MailMan	7.1
Master Patient Index/Patient Demographics (MPI/PD)	1.0
National Drug File (NDF)	4.0
Nursing Service	4.0
Order Entry/Results Reporting (OERR)	3.0
Registration	5.3
Pharmacy Data Management (PDM)	1.0
Remote Procedure Call (RPC) Broker	1.1
Scheduling	5.3

6.1   New Functionality

A new automated bidirectional interface between VistA and PADE has been designed and developed utilizing VIE as the middleware component for communication of HL7 messages and error handling. The added functional components are:

- Provide pharmacists the capability to remotely access dispensing equipment to provide the pharmacist the status of drugs: whether they have been dispensed, or in the queue or some error condition that may have been encountered by the dispensing equipment.

- Provide PADE the capability to transmit dispensing information to VistA Pharmacy to keep a perpetual inventory of all drugs/medications received, dispensed, and wasted.

- Provide PADE the capability to alert VistA Pharmacy of medication removal from PADE without orders.

- Establish monitors of all potentially inappropriate electronic pharmacy transactions. Implement trending reports in order to address and detect potentially inappropriate pharmacy transactions, such as drug diversion. For example, reports include the ability to sort transactions by nursing, user, drug, etc., and from the VA-side of the interface.

Refer to the following Pharmacy Interface Automation documents for additional information:

(will add hyperlinks once these are in final folder or on TSPR)

- Pharmacy Interface Automation Installation Guide

- Pharmcy Interface Automation User Guide

- Pharmacy Interface Automation System Design Document

- Pharmacy Interface Automation Data Dictionary

6.2   Options and Build Components

The following are the options and build components for Pharmacy Interface Automation for PSS*1.0*193:

```
Select OPTION NAME:    XPD PRINT BUILD     Build File Print
Build File Print
Select BUILD NAME: PSS*1.0*193       PHARMACY DATA MANAGEMENT
DEVICE: HOME// ;;99999  SSH VIRTUAL TERMINAL


PACKAGE: PSS*1.0*193      Nov 25, 2015 10:27
am                          PAGE 1
------------------------------------------------------------------------
---------SINGLE PACKAGE                              TRACK
NATIONALLY: YES
NATIONAL PACKAGE: PHARMACY DATA MANAGEMENT       ALPHA/BETA TESTING:
NO
As part of this patch PSS*1*193, the following enhancements were made:
   1. Two new protocols PSS MFNM01 CLIENT and PSS MFNM01 SERVER were
      added to facilitate sending MFN HL7 drug messages to PADE.
```

2. The Send Entire Drug File to External Interface [PSS MASTER FILE
   ALL] option was modified to allow transmission of the drug file
   to an Inpatient Interface (PADE) depending on the PADE setup. It
   also provides the flexibility of sending all drugs marked for
   Unit Dose, IV or Ward Stock or send selected drugs to PADE.

   Since this option now allows to send all or selected drugs to
   PADE, the option name "Send Entire Drug File to External
   Interface" was changed to "Send Drug File Entries to External
   Interface"

3. A new PSS PADE INIT security key was added so that holders of
   this key can only send "all" drugs to PADE noted in item 2.

4. Option Drug Enter/Edit [PSS DRUG ENTER/EDIT] was modified to send
   an addition/update/both or none to PADE provided it is setup to
   receive such updates.

```
ENVIRONMENT CHECK:                              DELETE ENV ROUTINE:
 PRE-INIT ROUTINE:                             DELETE PRE-INIT ROUTINE:
POST-INIT ROUTINE:                             DELETE POST-INIT ROUTINE:
PRE-TRANSPORT RTN:

ROUTINE:                                      ACTION:
   PSSDEE                                        SEND TO SITE
   PSSHLDFS                                      SEND TO SITE
   PSSMSTR                                       SEND TO SITE

OPTION:                                       ACTION:
   PSS MASTER FILE ALL                           SEND TO SITE

SECURITY KEY:                                 ACTION:
   PSS PADE INIT                                 SEND TO SITE

PROTOCOL:                                     ACTION:
   PSS MFNM01 CLIENT                             SEND TO SITE
   PSS MFNM01 SERVER                             SEND TO SITE

REQUIRED BUILDS:                              ACTION:
   PSS*1.0*180                                   Don't install, leave global
CDEVISC1A2:DVA>
```

6.3   Modified and New Routines

The following routines are for PSS*1*193:
```
PSSDEE
PSSHLDFS
PSSMSTR
```

(This page included for two-sided copying.)

7 Glossary

Administration Schedule File
The ADMINISTRATION SCHEDULE file (#51.1) contains administration schedule names and standard dosage administration times. The name is a common abbreviation for an administration schedule (e.g., QID, Q4H, PRN). The administration time is entered in military time.

CPRS
A VistA computer software package called Computerized Patient Record System. CPRS is an application in VistA that allows the user to enter all necessary orders for a patient in different packages from a single application.

DATUP
Functionality that allows the Pharmacy Enterprise Customization System (PECS) to send out custom and standard commercial-off-the-shelf (COTS) vendor database changes to update the two centralized databases at Austin and Martinsburg.

Dispense Drug
The Dispense Drug is pulled from DRUG file (#50) and usually has the strength attached to it (e.g., Acetaminophen 325 mg). Usually, the name alone without a strength attached is the Pharmacy Orderable Item name.

Dosage Form File
The DOSAGE FORM file (#50.606) contains all dosage forms and associated data that are used by Pharmacy packages and CPRS. The dosage form is used in SIG construction, default values and in the determination of the type of each dosage created for each application.

Dose Unit Conversion File
The DOSE UNIT CONVERSION file (#51.25) was created to convert one dose unit to another using a conversion factor so that a comparison can be made between two dose units when they are not equivalent. The dose unit used for the Dosing Order Check may not be the same dose unit First Databank (FDB) returns with the Dosing Order Check results.

Dose Unit File
The DOSE UNIT file (#51.24) was created to accomplish the mapping to First DataBank (FDB). All entries in this file have been mapped to an FDB Dose Unit. Although this file has not yet been standardized by Standards and Terminology Services (STS), no local editing will be allowed. When populating the Dose Unit field for a Local Possible Dosage in the DRUG file (#50), selection will be from this new file.

Drug Electrolytes File
The DRUG ELECTROLYTES file (#50.4) contains the names of anions/cations, and their cations and concentration units.

Drug File
The DRUG file (#50) holds the information related to each drug that can be used to fill a prescription or medication order. It is pointed to from several other files and should be handled

carefully, usually only by special individuals in the Pharmacy Service. Entries are not typically deleted, but rather made inactive by entering an inactive date.

Drug Text File   The DRUG TEXT file (#51.7) stores rapidly changing drug restrictions, guidelines, and protocols to help assure medications are being used according to defined specifications.

Infusion Instructions File   The INFUSION INSTRUCTIONS file (#53.47) holds abbreviations used when entering the Infustion Rate (#.08) field in the IV (#100) multiple of the PHARMACY PATIENT (#55) FILE, AND THE infusion rate (#59) FIELD IN THE non-verified orders (#53.1) file. Each record holds an expansion of the abbreviation which replaces the abbreviation in the Infusion Rate at the time the IV order is created.

IV Additives File   The IV ADDITIVES file (#52.6) contains drugs that are used as Additives in the IV room. Data entered includes drug generic name, print name, drug information, synonym(s), dispensing units, cost per unit, days for IV order, usual IV schedule, administration times, electrolytes, and quick code information.

IV Solutions File   The IV SOLUTIONS file (#52.7) contains drugs that are used as primary solutions in the IV room. The solution must already exist in the DRUG file (#50) to be selected. Data in this file includes: drug generic name, print name, status, drug information, synonym(s), volume, and electrolytes.

Local Possible Dosages   Local Possible Dosages are free text dosages that are associated with drugs that do not meet all of the criteria for Possible Dosages.

Medication Instruction File   The MEDICATION INSTRUCTION file (#51) is used by Unit Dose and Outpatient Pharmacy. It contains the medication instruction name, expansion and intended use.

Medication Routes File   The MEDICATION ROUTES file (#51.2) contains medication route names. The user can enter an abbreviation for each route to be used at their site. The abbreviation will most likely be the Latin abbreviation for the term.

Medication Routes/Abbreviations   The MEDICATION ROUTES file (#51.2) contains the medication routes and abbreviations, which are selected by each Department of Veterans Affairs Medical Centers (VAMC). The abbreviation cannot be longer than five characters to fit on labels and the Medical Administration Record (MAR). The user can add new routes and abbreviations as appropriate.

MOCHA   Medication Order Check Healthcare Application.

National Drug File	The National Drug File provides standardization of the local drug files in all VA medical facilities. Standardization includes the adoption of new drug nomenclature and drug classification and links the local drug file entries to data in the National Drug File. For drugs approved by the Food and Drug Administration (FDA), VA medical facilities have access to information concerning dosage form, strength and unit; package size and type; manufacturer's trade name; and National Drug Code (NDC). The NDF software lays the foundation for sharing prescription information among medical facilities.
Non-Formulary Drugs	Drugs that are not available for use by all providers.
Orderable Item	An Orderable Item is pulled from the PHARMACY ORDERABLE ITEM file (#50.7) and usually has no strength attached to it (e.g., Acetaminophen). The name, with a strength attached, is the Dispense Drug name (e.g., Acetaminophen 325mg).
Orderable Item File	The ORDERABLE ITEM file (#101.43) is a CPRS file that provides the Orderable Items for selection within CPRS. Pharmacy Orderable Items are a subset of this file.
PECS	Pharmacy Enterprise Customization System. A Graphical User Interface (GUI) web-based application used to research, update via DATUP, maintain, and report VA customizations of the commercial-off-the-shelf (COTS) vendor database used to perform Pharmacy order checks such as drug-drug interactions, duplicate therapy, and dosing.
PEPS	Pharmacy Enterprise Product Services. A suite of services that includes Outpatient and Inpatient services.
Pending Order	A pending order is one that has been entered by a provider through CPRS without Pharmacy finishing the order. Once Pharmacy has finished (and verified for Unit Dose only) the order, it will become active.
Pharmacy Orderable Item	The Pharmacy Orderable Item is used through CPRS to order Inpatient Medications and Outpatient Pharmacy prescriptions.
Pharmacy Orderable Item File	The PHARMACY ORDERABLE ITEM file (#50.7) contains the Order Entry name for items that can be ordered in the Inpatient Medications and Outpatient Pharmacy packages.
Possible Dosages	Dosages that have a numeric dosage and numeric Dispense Units Per Dose appropriate for administration. For a drug to have possible dosages, it must be a single ingredient product that is matched to VA PRODUCT file (#50.68). The VA PRODUCT file (#50.68) entry must have a numeric strength and the dosage form/unit combination must be such that a

numeric strength combined with the unit can be an appropriate dosage selection.

Prompt   A point at which the system questions the user and waits for a response.

Standard Medication Route File   The STANDARD MEDICATION ROUTE file (#51.23) was created to map Local Medication Routes in VistA to an FDB Route in order to perform dosage checks in PRE V.0.5. This file has been standardized by Standards and Terminology Service (STS) and is mapped to an FDB Route. It cannot be edited locally.

Standard Schedule   Standard medication administration schedules are stored in the ADMINISTRATION SCHEDULE file (#51.1).

Units Per Dose   The Units Per Dose is the number of Units (tablets, capsules, etc.) to be dispensed as a dose for an order. Fractional numbers will be accepted.

VA Drug Class Code   A drug classification system used by VA that separates drugs into different categories based upon their characteristics. Some cost reports can be run for VA Drug Class Codes.

VA Product File   The VA PRODUCT file (#50.68) contains a list of available drug products.