**PHARMACY BENEFITS MANAGEMENT (PBM)**

**EXTRACT ENHANCEMENTS**

**INSTALLATION GUIDE**

Version 4.0

June 2005

 Department of Veterans Affairs

VistA Health Systems Design & Development

Table of Contents

[1. Introduction 1](#_Toc107886683)

[1.1 Purpose 1](#_Toc107886684)

[1.2 Scope 1](#_Toc107886685)

[1.3 Dependencies and Constraints 1](#_Toc107886686)

[2. Pre-Installation 3](#_Toc107886688)

[2.1 Minimum Required Packages 3](#_Toc107886689)

[2.2 Required Setup 4](#_Toc107886690)

[3. Installation Instructions 5](#_Toc107886691)

[4. Post-Installation 9](#_Toc107886692)

[4.1 Required Tasks 9](#_Toc107886693)

[4.2 After Checksums 10](#_Toc107886694)

[4.2.1 PSO\*7\*165 Routines 10](#_Toc107886695)

[4.2.2 PSU 4.0 Routines 10](#_Toc107886696)

[5. Appendix: Reinstallation Requirements 13](#_Toc107886697)

[5.1 Add Child Protocols to Parent Protocols 13](#_Toc107886698)

[5.2 Delete ^PSULRHL1 and ^PSULRHLI 14](#_Toc107886699)

[5.3 Install PSU 4.0 Software 14](#_Toc107886700)

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# Introduction

## Purpose

To meet the reporting requirements placed on the Pharmacy Benefits Management (PBM) Strategic Healthcare Group (SHG) by external bodies such as the General Accounting Office (GAO), the Institute of Medicine (IOM), as well as congressional oversight bodies, PBMSHG requested enhancements to the Veterans Health Information Systems and Technology Architecture (VistA**)** PBM V. 4.0 application. PBM V. 4.0 extracts medication dispensing data, procurement data, and clinical data from multiple files in VistA and electronically exports the data via MailMan to the PBM national database.

The data set captured by the PBM V. 4.0 application will be expanded and enhanced to support the Veterans Affairs National Formulary (VANF) disease management issues and patient safety initiatives. The intended audiences for this document are PBM SHG, PBM Extract Enhancement workgroup, Provider Systems Health Systems Design and Development (HSD&D) staff, National VistA support staff, technical writers, and Software Quality Assurance (SQA) staff.

## Scope

PBM V. 4.0 is a new enhanced version of the software and replaces PBM V. 3.0. In a series of three enhancements, new extracts and reports were created, existing extracts were modified, and some options were modified to increase the functionality of this software package. For more detail, refer to the *Pharmacy Benefits Management V. 4.0 Release Notes* document.

## Dependencies and Constraints

 **Note**: PSO\*7\*165 is a required patch for PSU 4.0, and both have been bundled together in a master build. Implementation of enhancements is dependant on installing the patches listed in the Pre-Installation section.

The recent enhancements allow users to map pharmacy-defined locations from the Automatic Replenishment/Ward Stock (AR/WS) Stats, Controlled Substances (CS), and Drug Accountability applications to a specific Medical Center Division or Outpatient Pharmacy Site.

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# Pre-Installation

This section lists packages that are required and setup activities that must be performed prior to installing the new PBM software.

PSU 4.0 and PSO\*7\*165 should not be installed while the monthly *Automatic Pharmacy Statistics* [PSU PBM AUTO]option or a *Manual Pharmacy Statistics* [PSU PBM MANUAL] option is running. Installation may cause the tasked job to error out and not complete.

## Minimum Required Packages

This product shall run on standard hardware platforms used by the Department of Veterans Affairs Healthcare facilities. These systems consist of standard or upgraded Alpha AXP clusters and run VMS DSM, Cache NT, or Cache VMS.

|  |  |
| --- | --- |
| **Package** | **Minimum Version Needed** |
| Adverse Reaction Tracking (ART) | 4.0 |
| Auto Replenishment/Ward Stock (AR/WS) | 2.3 |
| Controlled Substances | 3.0 |
| Drug Accountability | 3.0 |
| Inpatient Medications  | 5.0 |
| Integrated Funds Control, Accounting and Procurement (IFCAP) | 5.1 |
| Kernel | 8.0 |
| Laboratory | 5.2 |
| MailMan  | 8.0 |
| National Drug File (NDF) | 4.0 |
| Outpatient Pharmacy | 7.0 |
| Patient Care Encounter (PCE) | 1.0 |
| Patient Information Management System (PIMS) | 5.3 |
| Pharmacy Data Management (PDM) | 1.0 |
| VA FileMan | 22.0 |
| Visit Tracking | 2.0 |

The above software is not included in this build and must be installed before this build is completely functional.

## Required Setup

Prior to installing PSU 4.0 and PSO\*7\*165, sites must perform the activities listed below.

* Install patch DG\*5.3\*575.
* Confirm that the Automatic Pharmacy Statistics [PSU PBM AUTO] option has run for the previous month and that all the MailMan messages generated have successfully transmitted to the PBM national database at Hines.
* Set up parameters for the new global ^PSUDEM using the steps outlined below. Default values can be used. Only sites running DSM need to set the global protection.

|  |  |
| --- | --- |
| **Step** | **Action** |
| 1 | Set Journaling:* Verify that Journaling is enabled, or
* Change the setting to “Enabled”.
 |
| 2 | Set Access Privileges:* Verify that the access privileges are set as listed below, or
* Set the following access privileges:
	+ System = RWP
	+ World = RW
	+ Group = RW
	+ UCI = RWP
 |

# Installation Instructions

This section contains detailed steps to install PSU 4.0 and PSO\*7\*165.

If PBM V. 4.0 has been previously installed in your test or live account, please proceed to the Appendix in this document (section 5, page 13), and follow the instructions to reinstall PBM V. 4.0.

 **Note:** Only follow these instructions in accounts where PBM V. 4.0 was previously installed. The requirements described in the Appendix must be fulfilled in order to complete the installation of PBM V. 4.0 in those areas.

**Note**: Installation MUST be queued during off hours (for example, at night).

The table below contains the steps necessary to install the software.

| **Step** | **Action** |
| --- | --- |
| 1 | Data for this patch is being distributed in a kids host file:  Filename FTP Protocol ------------ --------------- PSU\_4\_0.KID ASCII  The preferred method is to FTP this file from REDACTED, which will transmit the file from the first available FTP server.This file may also be downloaded directly from a particular FTP location at the following locations: REDACTED The file is available in the ANONYMOUS.SOFTWARE directory. |
| 2 | Review your mapped set. If the routines are mapped, they should be removed from the mapped set at this time. Currently there are no routines that are recommended by the package to be placed into the mapped set. |
| 3 | From the *Kernel Installation & Distribution System* menu, select the *Installation* menu. |
| 4 | From this menu, select the Load a Distribution option and selectPSU\_4\_0.KID. |

|  |  |
| --- | --- |
| 5 | From this menu, you may select to use the following options (when prompted for INSTALL NAME, enter PSU 4.0): 1. *Backup a Transport Global* - This option will create a backup message of any routines exported with the build. It will not back up any other changes, such as DDs or templates.
2. *Compare Transport Global to Current System* - This option will allow you to view all changes that will be made when the build is installed. It compares all components of the release (routines, DDs, templates, etc.).
3. *Verify Checksums in Transport Global* - This option will ensure the integrity of the routines that are in the transport global.
 |
| 6 | Use the *Install Package(s)* option and select the package PSU 4.0. |
| 7 | Install Questions for PSU 4.0: |
| 8 | When prompted, “Enter the Coordinator for Mail Group 'PSU PBM':”, please respond with **the name of your site’s PSU PBM Mail Group Coordinator**. |
| 9 | When prompted "Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES//", respond **NO**. |
| 10 | Install Questions for PSO\*7.0\*165: |
| 11 | When prompted "Want KIDS to INHIBIT LOGONs during the install? YES//", respond **NO**. |
| 12 | When prompted "Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//", respond **NO**. |
| 13 | If any routines were unmapped as part of step 2, they should be returned to the mapped set once the installation has run to completion. |

**Example: Screen Display During Installation of PSU 4.0 and PSO\*7\*165**

Select Installation Option: LOad a Distribution

Enter a Host File: PSU\_4\_0.KID

KIDS Distribution saved on Jun 22, 2005@14:17:32

Comment: PSU 4.0 - 06/22/2005

This Distribution contains Transport Globals for the following Package(s):

 PSU 4.0

 PSO\*7.0\*165

Distribution OK!

Want to Continue with Load? YES// <Enter>

Loading Distribution...

 PSU 4.0

 PSO\*7.0\*165

Use INSTALL NAME: PSU 4.0 to install this Distribution.

Select Installation Option: INstall Package(s)

Select INSTALL NAME: PSU 4.0 Loaded from Distribution 6/23/05@07:43:38

 => PSU 4.0 - 06/22/2005 ;Created on Jun 22, 2005@14:17:32

This Distribution was loaded on Jun 23, 2005@07:43:38 with header of

 PSU 4.0 - 06/22/2005 ;Created on Jun 22, 2005@14:17:32

 It consisted of the following Install(s):

 PSU 4.0 PSO\*7.0\*165

Checking Install for Package PSU 4.0

Install Questions for PSU 4.0

Incoming Files:

 59.7 PHARMACY SYSTEM (Partial Definition)

Note: You already have the 'PHARMACY SYSTEM' File.

 59.9 PBM PATIENT DEMOGRAPHICS

Incoming Mail Groups:

Enter the Coordinator for Mail Group 'PSU PBM': <Enter Coordinator here.>

Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES// NO

Checking Install for Package PSO\*7.0\*165

Install Questions for PSO\*7.0\*165

Want KIDS to INHIBIT LOGONs during the install? YES// NO

Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES// 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// <Enter device here.>

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - **continued** - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - **Example: Screen Display During Installation of PSU 4.0 and PSO\*7\*165 (continued)**

 Install Started for PSU 4.0 :

 Jun 23, 2005@08:28:39

Build Distribution Date: Jun 22, 2005

 Installing Routines:

 Jun 23, 2005@08:28:44

 Installing Data Dictionaries: .

 Jun 23, 2005@08:28:46

 Installing PACKAGE COMPONENTS:

 Installing MAIL GROUP

 Installing PROTOCOL

 Installing OPTION

 Jun 23, 2005@08:28:47

 Updating Routine file...

 Updating KIDS files...

 PSU 4.0 Installed.

 Jun 23, 2005@08:28:50

Install Message sent # 32156897

 PSO\*7.0\*165

────────────────────────────────────────────────────────────────────────────────

 Install Started for PSO\*7.0\*165 :

 Jun 23, 2005@08:28:50

Build Distribution Date: Jun 22, 2005

 Installing Routines:

 Jun 23, 2005@08:28:50

 Updating Routine file...

 Updating KIDS files...

 PSO\*7.0\*165 Installed.

 Jun 23, 2005@08:28:50

Install Message sent # 32156898

────────────────────────────────────────────────────────────────────────────────

 ┌────────────────────────────────────────────────────────────┐

 100% │ 25 50 75 │

Complete └────────────────────────────────────────────────────────────┘

Install Completed

# Post-Installation

This section describes the tasks that have to be performed after the new PBM software is installed.

## Required Tasks

After installing PSU 4.0 and PSO\*7\*165, sites must ensure that the following tasks are performed:

* If you did not name a coordinator for the Mail Group ‘PSU PBM’, use VA FileMan to enter the coordinator’s name.
* Pharmacy locations can be mapped using the new *Map Pharmacy Locations* [PSU MAP PHARMACY LOCATIONS] option in order to receive a breakdown of data from those mapped sites for the AR/WS, CS, and Procurement extracts. If the locations are not mapped, the data on those extracts will be included in data from the parent facility.
* Confirm that the *Automatic Pharmacy Statistics* [PSU PBM AUTO] option is scheduled correctly for the next month’s transmission.

REDACTED

**Example Email Message to Hines PBM Group**

REDACTED

## After Checksums

This section lists the routines and related checksums for PSO\*7\*165 and PSU 4.0 after the installation process.

### PSO\*7\*165 Routines

PSOORDER value = 38147160

### PSU 4.0 Routines

PSUAA1 value = 5004740

PSUAA2 value = 2048002

PSUALERT value = 2451350

PSUAMC value = 1435929

PSUAR0 value = 2539270

PSUAR1 value = 6597726

PSUAR2 value = 4029683

PSUAR3 value = 3301995

PSUAR4 value = 4559435

PSUAR5 value = 2705021

PSUAR6 value = 15918574

PSUAR7 value = 10780321

PSUCP value = 19771114

PSUCP1 value = 17802546

PSUCP2 value = 6628603

PSUCP3 value = 266373

PSUCS0 value = 1105018

PSUCS1 value = 2690675

PSUCS17 value = 1182805

PSUCS2 value = 1760097

PSUCS3 value = 1807764

PSUCS4 value = 2023448

PSUCS5 value = 1715619

PSUCSR0 value = 4822512

PSUCSR1 value = 6560340

PSUCSR2 value = 5639812

PSUDBQUE value = 11635692

PSUDEM0 value = 6311295

PSUDEM1 value = 7925968

PSUDEM2 value = 6722886

PSUDEM3 value = 2240229

PSUDEM4 value = 10782922

PSUDEM5 value = 8224573

PSUDEM6 value = 1246268

PSUDEM7 value = 4510645 continued . . .

PSUDEM8 value = 6660546

PSUDEM9 value = 2831680

PSUENV value = 2337736

PSUHL value = 3698103

PSULR0 value = 3357916

PSULR1 value = 2109050

PSULR2 value = 2242423

PSULR3 value = 2259242

PSULR4 value = 3433569

PSULR5 value = 6545368

PSULR6 value = 1738680

PSUMAP0 value = 10846239

PSUMAPR value = 8795474

PSUOP0 value = 2639829

PSUOP1 value = 4220637

PSUOP2 value = 8813762

PSUOP3 value = 13796489

PSUOP4 value = 6248132

PSUOP5 value = 9056798

PSUOP6 value = 5380760

PSUOP7 value = 5382491

PSUOP8 value = 14667137

PSUOPAM value = 3339220

PSUOPMD value = 8613833

PSUPR0 value = 4023661

PSUPR1 value = 4340187

PSUPR2 value = 9531754

PSUPR3 value = 3440365

PSUPR4 value = 3448048

PSUPR5 value = 8260662

PSUPR6 value = 1813032

PSURT1 value = 8587609

PSURT2 value = 2926788

PSURTQ value = 241328

PSUSUM1 value = 5954587

PSUSUM2 value = 11457848

PSUSUM3 value = 12119964

PSUSUM4 value = 13648090

PSUSUM5 value = 9189658

PSUSUM6 value = 12857626

PSUSUM7 value = 14299810

PSUTL value = 4583242

PSUTL1 value = 1238679

PSUUD0 value = 1564960 continued . . .

PSUUD1 value = 5681173

PSUUD2 value = 7162225

PSUUD3 value = 5907013

PSUUD4 value = 2603802

PSUUD5 value = 4159672

PSUUD6 value = 7640357

PSUUD7 value = 5347664

PSUV0 value = 1980215

PSUV1 value = 13627369

PSUV10 value = 7002558

PSUV11 value = 1038711

PSUV12 value = 12399968

PSUV2 value = 13953791

PSUV3 value = 3638955

PSUV4 value = 6627596

PSUV5 value = 3907420

PSUV6 value = 6845919

PSUV7 value = 6773340

PSUV8 value = 6994421

PSUV9 value = 7069860

PSUVIT value = 1714

PSUVIT0 value = 2469

PSUVIT1 value = 10457162

PSUVIT2 value = 2058126

# Appendix: Reinstallation Requirements

Sites that have previously installed PSU 4.0 software and are reinstalling it must fulfill the three requirements described below.

## Add Child Protocols to Parent Protocols

The first requirement is to add the child protocols listed below to the appropriate parent protocol. This requirement may be met either before or after the PSU 4.0 reinstall as long as it is completed before going into Production.

**Note**: If PSU PATIENT DEMOGRAPHIC CHANGE is already attached to the DG FIELD MONITOR protocol, leave it attached.



|  |  |
| --- | --- |
| **Parent Protocol** | **Associated Child Protocols** |
| LR7O ALL EVSEND RESULTS | 1) LA7 LAB RESULTS ACTION2) ROR EVENT LAB3) RG LAB EVENT4) RG MICRO EVENT |
| DG FIELD MONITOR | 1) PSU PATIENT DEMOGRAPHIC CHANGE2) SCMC PCMM INACTIVATE ON DATE OF DEATH3) ROR EVENT LAB4) RG LAB EVENT5) RG MICRO EVENT |

If your site does not have a child protocol listed above, it simply means that your site does not use that protocol.**Example**: Adding child protocols or items to a parent protocol using VA FileMan.

Select OPTION: **EN**TER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: INSTALL// **PROT**OCOL (4900 entries)

EDIT WHICH FIELD: ALL// **NA**ME

THEN EDIT FIELD: **IT**EM

 1 ITEM (multiple)

 2 ITEM TEXT

CHOOSE 1-2: **1** ITEM (multiple)

 EDIT WHICH ITEM SUB-FIELD: ALL// **.01** ITEM

 THEN EDIT ITEM SUB-FIELD: <**Enter**>

THEN EDIT FIELD: <**Enter**>

Adding child protocols to the parent protocol LR7O ALL EVSEND RESULTS:

Select PROTOCOL NAME: **LR7O AL**LEVSEND RESULTS LAB RESULTS => EXTERNAL PACKAGE

NAME: LR7O ALL EVSEND RESULTS Replace

Select ITEM: **ROR EVENT L**AB LAB RESULTS => ROR PENDING PATIENT // <**Enter**>

 ITEM: **ROR EVENT L**AB LAB RESULTS => ROR PENDING PATIENT// <**Enter**>

Select ITEM: **LA7 LAB RESULTS ACTION LAB RESULTS => EXTERNAL PACKAGE**

Select ITEM: **RG L**AB EVENT Lab --> CIRN

Select ITEM: **RG MI**CRO EVENT Micro --> CIRN

Select ITEM:<**Enter**>

>

Adding child protocols to the parent protocol DG FIELD MONITOR:

Select PROTOCOL NAME: **DG FI**ELD MONITOR DG Field Monitor

Select ITEM: PSU PATIENT DEMOGRAPHIC CHANGE// <**Enter**>

 ITEM: PSU PATIENT DEMOGRAPHIC CHANGE // <**Enter**>

Select ITEM: **SCMC PCMM INA**CTIVATE ON DATE OF DEATH

Select ITEM: **SPN REG STATUS U**PDATE

Select ITEM: **SPN REG STATUS D**ELETE

Select ITEM: **FB PATIENT DA**TA CHANGE

Select ITEM: **VAFC MPIPD FIE**LD TRIGGER

Select ITEM: <**Enter**>

>

## Delete ^PSULRHL1 and ^PSULRHLI

Please delete ^PSULRHL1 and ^PSULRHLI from your test and/or production area(s).

## Install PSU 4.0 Software

Once your protocols are restored and the ^PSULRHL1 and ^PSULRHLI routines are deleted, please return to section 3 of these Installation Instructions and complete the reinstallation of the PSU 4.0 software.