

Department of Veterans Affairs
Patient Centered Management Module (PCMM) –
PCMM Web

Technical Manual



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1. Product Description

The mission of the Department of Veterans Affairs (VA), the Office of Information and Technology (OIT), and the Veteran Health Administration (VHA) is to provide benefits and services to Veterans of the United States. In meeting these goals, OIT strives to provide high-quality, effective, and efficient Information Technology (IT) services to those responsible for providing care to the Veterans at the point-of-care as well as throughout all the points of the Veterans' health care in an effective, timely, and compassionate manner.

VHA has developed a Primary Care (PC) system that balances productivity with quality, access, and patient service. Management of patient panels in PC through mandatory and consistent use of the Patient-Centered Management Module (PCMM) has supported this system redesign. In a PC setting and in the Patient-Aligned Care Team (PACT) model, patients are assigned a Primary Care Provider (PCP) who is responsible for delivering essential health care, coordinating all health care services, and serving as the point of access for VA care. The PCP works together with a team of professionals which includes nurses, pharmacists, social workers, health care professions, trainees, clerks, and more.

The PCMM Web software is considered to be an important component in measuring patient demand and PCP capacity to meet that demand, as well as reduce wait times. It allows users to set up and define treatment teams, assign positions to the team, assign staff to positions, assign patients to the team, and assign patients to a PCP. PCMM Web was developed to assist VA facilities in implementing PC. PCMM Web supports both PC and non-PC teams. Teams are groups of staff members organized for a certain purpose.

The PCMM software will be referred to as PCMM Web. It is a National website and contains data for all sites. It will replace the current PCMM software accessible on the user's desktop. An integral part of PCMM Web is the Data Migration that migrates the data from Legacy PCMM to PCMM Web. It is accessed via the VA intranet by users who have been trained and granted access. The main users of PCMM Web are PCMM Coordinators, Mental Health Treatment Coordinators, Transition and Care Management Coordinators, and Travelling Veteran Coordinators. PCMM Web retrieves provider and patient data from VistA via VistALink and interfaces with the Master Veteran Index via HL7 and Java to validate each patient's national identity. PCMM Web synchronizes data back to the VistA PCMM files so it can continue to be accessed by existing software that currently utilizes it.

1.1. About this Guide

Patient Centered Management Module Technical Manual provides technical information for configuring, managing, and troubleshooting local components of the PCMM application.

1.2. Referenced Documents

The following documents and files are available on the Anonymous software directories identified in the table below:

- Patch OR*3.0*387 Release Notes
- Patch SD*53*603 Release Notes
- Patch SD*53*620 Release Notes
- PCMM Data Migration Installation Guide
- PCMM Installation Guide
- PCMM Production Operations Manual
- PCMM Web User Guide

The documents are available on the VistA Documentation Library (VDL), which is located at <http://www.va.gov/vdl/application.asp?appid=211> and also available on TSPR, <http://tspr.vista.med.va.gov/warboard/anotebk.asp?proj=1483&Type=Active>.

1.3. File Retrieval

Files are available on the Anonymous software directories identified in the table below.

Table 1: Anonymous Software Directories

OI&T Field Office	FTP Address	Directory
Albany	ftp.fo-albany.med.va.gov	anonymous.software
Hines	ftp://ftp.fo-hines.med.va.gov/	anonymous.software
Salt Lake City	ftp://ftp.fo-slc.med.va.gov/	anonymous.software
VistA Download Site	ftp://download.vista.med.va.gov	anonymous.software

The documents appear on the Anonymous software directories under the file names listed

Table 1: Types of Documentation Title	File Name	FTP Mode
OR_30_387_rn.doc	Patient Centered Management Module (PCMM) – OR*3.0*387 Release Notes	Binary
SD_53_603_rn.doc	Patient Centered Management Module (PCMM) – SD*5.3*603 Release Note	Binary
PCMMR_POM.doc	Patient Centered Management Module (PCMM) – Production Operations Manual	Binary
OR_30_387_DM.doc	Patient Centered Management Module Web Data Migration Guide (Patch SD*5.3*620)	Binary
SD_53_603_ig.doc	Patient Centered Management Module PCMM Web-VistA	Binary
SD_53_603_um.doc	Patient Centered Management Module (PCMM) Web User Guide	Binary

1.4. Section 508 Compliance

Veterans Affairs, Office of Product Development (OPD), Product Assessment Competency Division has completed the Section 508 compliance auditing of Patient Centered Management Module (PCMM). The Patient Centered Management Module (PCMM) is assigned a Section 508 ID tracking number of 20457. The Patient Centered Management Module (PCMM) is assigned a Section 508 status of Conformant.

2. System Requirements

For PCMM Web systems operations, review the PCMM Web Productions Operations Manual.

2.1. Legacy Changes

The purpose of the SD*5.3*603 patch is to install the VistA changes needed to support PCMM Web and to remove all user access for the Legacy PCMM GUI. Additionally, The PCMM NIGHTLY TASK job in TaskMan is no longer needed. For more information and how to install the patch, refer to Patient-Centered Management Module Web Installation Guide.

2.2. Patch OR*3.0*387 – PCMM Web Team Display Enhancements to CPRS

Patch OR*3.0*387 allows CPRS to retrieve the patient's team and provider assignments from PCMM Web. For more information and how to install the patch, refer to Patient-Centered Management Module Web Installation Guide

3. Routines

3.1. SD*53*603 Routines

- SCMCTSK - Modified to update several files when a patient date of death is entered or removed in the Patient (#2) File.
- SCMCTSK2 - Modified to ensure the PCMM NIGHTLY TASK [SCMC PCMM NIGHTLY TASK] menu option job never runs on VistA. (A QUIT statement was added immediately after the entry point - NIGHT.)
- SCMCMHTC - Modified to fix a date comparison issue.
- SCAPMC23 - Modified to correct an endless loop when reading unexpected data.
- SCMCDD1 - Modified to create or update OUTPATIENT PROFILE (#404.41) records for all assignment types. The routine was also modified to add "fail-safes" to quit processing if PATIENT TEAM ASSIGNMENT (#404.42) or PATIENT TEAM POSITION ASSIGNMENT (#404.43) records are not found when sending mail messages.
- SCMCTSK5, SCMCTSK6 - The routines were modified to change auto-inactivation related time periods and other text in report and mail boiler plate text. All auto-inactivation processing will be performed by PCMM Web.
- SDCOU - Modified to create ACOD index records for Credit Stop Code OUTPATIENT ENCOUNTER (#409.68) records.
- SD53P603 - Developed to perform the following actions:
 - Add or update HWSC server and web service file entries
 - Add the application proxy user
 - Convert STATUS (#.12) in or PATIENT TEAM POSITION ASSIGNMENT (#404.43) from NA to IU
 - Build the new ACOD index for the OUTPATIENT ENCOUNTERS file
 - Build the new C cross reference for PATIENT TEAM POSITION ASSIGNMENT (#404.43) TEAM POSITION (#.02)
 - Un-schedule the legacy PCMM Nightly Task from TaskMan
 - Place PCMM legacy menu options out-of-order

- Change users' secondary menu option from SCMC PCMM GUI WORKSTATION to SCMC PCMMR WEB USER MENU
- Create missing ACOD index records in OUTPATIENT ENCOUNTER (#409.68) file
- Delete the trigger cross reference (FTEXR) on POSITION ASSIGNMENT HISTORY File (#404.52): FTEE EQUIVALENT (#.09)
- Create two records in the TEAM PURPOSE (#403.47) file: PRIMARY CARE – NVCC and PRIMARY CARE - HBPC
- SCMCOPT - Developed to place a number of PCMM legacy menu options and a protocol out-of-order. This routine also contains an entry point to change the value in the SECONDARY MENU OPTIONS (#.01) field in the SECONDARY MENU OPTIONS (#203) in the NEW PERSON (#200) file from SCMC PCMM GUI WORKSTATION to SCMC PCMMR WEB USER MENU. Both entry points are called by the post-installation routine, SD53P603.
- SCMCFPOS - Developed to fix the TEAM POSITION (#404.57) file at sites that have deviated from the gold STANDARD POSITION (#403.46) file that is released with this patch.
- SD53I603 - Developed to delete the global for the STANDARD POSITION (#403.46) file and create the initial file header.
- SCMCDDR - Developed to implement the RPC SCMC LISTER and returns VistA data to PCMM Web using the VA FileMan DBS API: Lister (LIST^DIC).
- SCMCDDR0 - Developed to implement the RPC SCMC FINDER and returns VistA data to PCMM Web using the VA FileMan DBS API: Find (FIND^DIC).
- SCMCDDR2 - Developed to implement the RPC SCMC GETS ENTRY DATA and returns VistA data to PCMM Web using the VA FileMan DBS API: Data Retriever (GETS^DIQ).
- SCMCDDR3 - Developed to implement the RPC SCMC FILER and updates VistA data from PCMM Web using a VA FileMan DBS APIs: Filer (FILE^DIE) and Updater (UPDATE^DIE).
- SCMCENCT - Developed to implement the RPC SCMC GET PATIENT ENCOUNTERS and returns patient encounter data to PCMM Web. The data is used to determine if and when a patient had a completed encounter with a teamlet member.
- SCMCFTEE - Developed to implement the following five RPCs:
 - SCMC FTEE CREATE
 - SCMC FTEE READ
 - SCMC FTEE READALL, SCMC FTEE
 - UPDATE
 - SCMC FTEE DELETE
 - The RPCs allow PCMM Web to maintain FTEE HISTORY multiple (#1) in the POSITION ASSIGNMENT HISTORY (#404.52) file.
- SCMCNPER - Developed to implement the RPC SCMC GET NEW PERSON and returns provider information to PCMM Web.
- SCMCPAT - Developed to implement the RPC SCMC PATIENT DIEDON and returns a patient's date of death to PCMM Web.
- SCMCWS1, SCMCWS1A, SCMCWSUT - Developed to retrieve PACT and other team information that is displayed in the CPRS PC Details Window.

3.2. OR*3*387 Routines

- ORWPT1 - This routine contains the entry points for the Remote Procedure Calls ORWPT1 PRCARE and ORWPT1 PCDETAIL.

4. Checksums

4.1. SD*53*603 Checksums

Routine Name: SCAPMC23

Before: B18108399 After: B18453123 **41,148,603**

Routine Name: SCMCDD1

Before: B22709019 After: B25172674 **41,89,107,603**

Routine Name: SCMCDDR

Before: n/a After: B34341424 **603**

Routine Name: SCMCDDR0

Before: n/a After: B16319343 **603**

Routine Name: SCMCDDR2

Before: n/a After: B24257447 **603**

Routine Name: SCMCDDR3

Before: n/a After: B6820328 **603**

Routine Name: SCMCENCT

Before: n/a After: B28013021 **603**

Routine Name: SCMCFPOS

Before: n/a After: B95974585 **603**

Routine Name: SCMCFTEE

Before: n/a After: B17041744 **603**

Routine Name: SCMCMHTC

Before: B9636096 After: B10680608 **575,603**

Routine Name: SCMCNPER

Before: n/a After: B40344757 **603**

Routine Name: SCMCOPT

Before: n/a After: B44626560 **603**

Routine Name: SCMCPAT

Before: n/a After: B7157117 **603**

Routine Name: SCMCTSK

Before: B36651125 After: B38253964 **264,278,272,297,581,603**

Routine Name: SCMCTSK2

Before: B103317459 After: B105827282 **297,498,527,499,532,504,603**

Routine Name: SCMCTSK5

Before: B58969240 After: B59325306 **297,532,539,603**

Routine Name: SCMCTSK6

Before: B61520556 After: B61603528 **297,532,581,603**

Routine Name: SCMCWS1

Before: n/a After: B162034987 **603**

Routine Name: SCMCWS1A

Before: n/a After: B97769299 **603**

Routine Name: SCMCWSUT

Before: n/a After: B5582990 **603**

Routine Name: SD53I603

Before: n/a After: B142505 **603**

Routine Name: SD53P603

Before: n/a After: B249302623 **603**

Routine Name: SDCOU

Before: B4920937 After: B4357231 **603**

4.2. OR*3*387 Checksums

Routine Name: ORWPT1

Before: B25961923 After: B33003577 **10,109,280,340,306,387**

5. Remote Procedure Calls

5.1. SD*53*603 Remote Procedure Calls

- SC DELETE ENTRY, SC PAT ASGN MAILMAN, SC PATIENT LOOKUP - Modified-set APP PROXY ALLOWED to Y.
- SCMC FILER - Developed to update VistA data to PCMM Web using a VA FileMan DBS APIs: Filer (FILE^DIE) and Updater (UPDATE^DIE). Associated routine: SCMCDDR3.
- SCMC FINDER - Developed to return VistA data to PCMM Web using the VA FileMan DBS API: Find (FIND^DIC). Associated routine: SCMCDDR0.
- SCMC FTEE CREATE, SCMC FTEE READ, SCMC FTEE READALL, SCMC FTEE UPDATE, SCMC FTEE DELETE - The new RPCs were developed to allow PCMM Web to maintain the FTEE HISTORY (#1) multiple in the POSITION ASSIGNMENT HISTORY (#404.52) File. Associated routine: SCMCFTEE.
- SCMC GET NEW PERSON - Developed to return provider information to PCMM Web. Associated routine: SCMCNPER.
- SCMC GET PATIENT ENCOUNTERS - Developed to return patient encounter data to PCMM Web. The data is used to determine if and when a patient has a completed encounter with a teamlet member. Associated routine: SCMCENCT.
- SCMC GETS ENTRY DATA - Developed to return VistA data to PCMM Web using the VA FileMan DBS API: Data Retriever (GETS^DIQ). Associated routine: SCMCDDR2.
- SCMC LISTER - Developed to return VistA data to PCMM Web using the VA FileMan DBS API: Lister (LIST^DIC). Associated routine: SCMCDDR.
- SCMC PATIENT DIEDON - Developed to return a patient's date of death to PCMM Web. Associated routine: SCMCPAT.

- SCMC PATIENT INFO - Developed to return patient demographic information to PCMM Web. Associated routine: SCMCPAT.
- SCMC PCDETAIL - Developed to return detailed PACT and other team assignment information for a patient. Used to batch load CPRS PC Window Cache during PCMMR deployment. Associated routines: SCMCWS1, SCMCWS1A, SCMCWSUT.

5.2. OR*3*387 Remote Procedure Calls

- ORWPT1 PRCARE - Displays the CPRS Primary Care Header information.
- ORWPT1 PCDETAIL - Displays the CPRS Primary Care Detail window.

6. Additions to PCMM Data Dictionary

6.1. Outpatient Profile #404.41

The following fields were added.

Data Element	Name	Global Location	Data Type	Description
404.41,.06	CPRS HEADER TEXT	1;1	Free Text	This field contains PACT assignment data to be used in the PCMM/R Header in CPRS for this patient. It will be updated by PCMM when the patient's PACT team is assigned or unassigned.
404.41,.07	CPRS PC WINDOW CACHE	2;0	Word Processing	This field will contain a cached version of a patient's PACT and other team assignment details that is displayed in the CPRS PCMM Details Window. It will be updated each time a patient's PACT and other team details are requested by CPRS from PCMMR. The cached data will display in the CPRS PCMM Details Window if the connection to PCMM is not available.

6.2. Patient Team Assignment File #404.42

The following fields were modified.

Data Element	Name	Global Location	Data Type	Description
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Data Element	Name	Global Location	Data Type	Description
404.42,.08	ASSIGNMENT TYPE	0;8	Set of Codes	This field indicates the type of care provided by this assignment. '1' FOR PRIMARY CARE; '98' FOR PENDING PRIMARY CARE; '99' FOR OTHER;
404.42,.15	STATUS	0;15	Set of Codes	The status reason the patient was unassigned from the team. 'DU' FOR DOD UNASSIGN; 'IU' FOR INACTIVE UNASSIGN; 'DD' FOR REASSIGN-DOD REMOVED; 'PR' FOR PAT RELOCATED; 'RP' FOR REQ BY PAT; 'NN' FOR NOT NEEDED; 'PC' FOR PROV CHANGE; 'PI' FOR MVI MOVE/MERGE; 'FT' FOR INTRA FAC TRANS; 'MU' FOR MISSING/UNK; 'MD' FOR M-PACT DENIAL/WDRAW; 'DC' FOR DISCHARGE FROM CARE; 'ER' FOR ERROR;

6.3. Patient Team Position Assignment File #404.43

The following fields were modified.

Data Element	Name	Global Location	Data Type	Description
404.43,.02	TEAM POSITION	0;2	POINTER TO TEAM POSITION FILE (#404.57	This field indicates a new cross reference was created.

Data Element	Name	Global Location	Data Type	Description
404.43,.12	STATUS	0;15	Set of Codes	<p>The status reason the patient was unassigned from a team position.</p> <p>'DU' FOR DOD UNASSIGN; 'IU' FOR INACTIVE UNASSIGN; 'DD' FOR REASSIGN-DOD REMOVED; 'PR' FOR PAT RELOCATED; 'RP' FOR REQ BY PAT; 'NN' FOR NOT NEEDED; 'PC' FOR PROV CHANGE; 'PI' FOR MVI MOVE/MERGE; 'FT' FOR INTRA FAC TRANS; 'MU' FOR MISSING/UNK; 'MD' FOR M-PACT DENIAL/WDRAW; 'DC' FOR DISCHARGE FROM CARE; 'ER' FOR ERROR;</p>

6.4. Position Assignment History File #404.52

The following fields were added or modified.

Data Element	Name	Global Location	Cross Reference	Data Type	Description
404.52,.12	TEAMLET POSITION	0;12		Set of Codes	'1' FOR YES; '0' FOR NO; Previously, a patient encounter with a primary care provider or similar was necessary for that patient to avoid being inactivated. With the implementation of PCMM this was changed to include any provider assigned to a teamlet-designated position.
404.52,.09	FTEE EQUIVALENT	0;9	Removed FTEXR cross reference	Number	This field indicates the workload measurement. This information is transmitted in the HL7 workload message.
404.52,1	FTEE HISTORY		B	Multiple	This field indicates historical changes in FTEE values. This is maintained by PCMM Web and should not be edited.
404.521,.01	FTEE HISTORY	0;1		Date	This field indicates record of changes in FTEE. This is maintained by PCMM Web and should not be edited.
404.521,.02	VALUE	0;2		Number	This field indicates historical record of FTEE changes. This is maintained by PCMM Web and should not be edited.
404.521,.03	USER	0;3		Pointer	This field indicates when a user modifies the FTEE. This is maintained by PCMM Web and should not be edited.

6.5. PCMM Patient Events File #404.54

New File - This file tracks patient events of interest to PCMM Web. For patient death events, the file is updated by the DG FIELD MONITOR event driver executing the SCMC PCMM INACTIVATE ON DATE OF DEATH event protocol.

Data Element	Name	Global Location	Cross Reference	Data Type	Description
404.54,.01	PATIENT	0;1	B	Pointer	This field indicates the Patient to which the Event pertains.
404.54,.02	EVENT DATE/TIME	0;2	C	Date	This is the date and time when the event occurred.
404.54,.03	EVENT CODE	0;3		Set of Codes	'AD' FOR DATE OF DEATH SET; 'AR' FOR DATE OF DEATH UNSET; This is a code to indicate the type of event that occurred.
404.54,.04	EVENT DATA	1;1		Free Text	This is additional information pertaining to the event. This field contains the date of death for "AD" EVENT CODE.

6.6. Outpatient Encounter File #409.68

The following fields were modified.

Data Element	Name	Global Location	Cross Reference	Data Type	Description
409.68,.02	PATIENT	0;2	ACOD added	Pointer	This field contains the patient associated with the encounter.
409.68,.07	CHECK OUT PROCESS COMPLETION	0;7	ACOD added	Date	This field indicates the check out process has been successfully completed for this outpatient encounter.

7. Options

Option Name	Type	Status
SCMC PCMMR APP PROXY MENU	broker	new
SCMC PCMMR WEB USER MENU	broker	new
SC PCMM MARK OPT OUT OF ORDER	routine	new
SCMC PCMM NIGHTLY TASK	routine	out-of-order
SCMC PATIENT ASSIGN/UNASSIGN	routine	out-of-order
SCMC CLEAN GHOST ENTRIES	routine	out-of-order
SCMC CLEAN INSTITUTION	routine	out-of-order
SCMC CONVERSION TOOLS MENU	menu	out-of-order
SCMC EXTEND A PATIENT	routine	out-of-order
SCMC FLAGGED	routine	out-of-order
SCMC MU MASS TEAM UNASSIGNMENT	routine	out-of-order
SCMC PC ATTENDING CONVERSION	routine	out-of-order
SCMC PCMM BASELINE SEEDING	routine	out-of-order
SCMC PCMM EDIT PRACTIT #404.52	routine	out-of-order
SCMC PRECEPTOR CONVERSION	routine	out-of-order
SCMC PRECEPTOR MIGRATION RPT	routine	out-of-order
SCMC RETRANSMIT	routine	out-of-order
SCMC PCMM GUI WORKSTATION	broker	out-of-order
SCMC PC ATTENDING ASGN RPT	routine	out-of-order

8. Security

8.1. VA Directive 6513

VA directive 6513 “Secure External Connections” doesn’t apply since PCMM doesn’t access any systems external to the VA network and all PCMM users must first be on the network to access the application, either directly or over VA VPN.

8.2. KAAJEE

KAAJEE Security for Authentication and Authorization - The VA mandates implementing J2EE application security through the use of the KAAJEE framework. This constraint will be taken into account when designing the technical solution.

8.3. IAM compliance

PCMM follows the technical and business standards published by the Identity and Access Management (IAM) group to ensure that its user data remains protected and is consistent with the enterprise. Specifically PCMM uses the following services:

- Master Veteran Index (MVI) – serves as an authoritative source for persons’ identity traits. Provides initial VA identity correlation with external partners and across VistA sites, and maintains a record locator service for all client records known in VA.
- Identity Integration – Ensures application integration and consumption of identity services is configured to ensure identity data remains current and accurate.
- VAAFI – PCMMR access to MVI is secured via the VAAFI security tool

For more information, refer to <http://vaww.iam.va.gov>.