# **Clinical Procedures (CP)**

# **Technical Manual and Package Security Guide**



Version 1.0

April 2004

Revised December 2018

Department of Veterans Affairs

Office of Information and Technology (OI&T)

Product Development

# **Revision History**

Description	Date	Author
Patch MD*1.0*65	December 2018	Kerry Milligan
High Volume Procedure Edit option update and Consult to CP Conversion utilities		
Patch MD*1.0*60	July 2018	Kerry Milligan
Updated CP Instrument File table and Option list.		
<sup>1</sup> Patch MD*1.0*42:	March 2016	Loren Behuniak, VA PM
Updated cover page and Revision History.		Diane Burger, Tech Writer
Added new CONSULT KEEP OPEN field to CP Instrument File table on page <u>5-9.</u>		
<sup>2</sup> Patch MD*1.0*29 – Updated for ICD-10	August 2014	Kathy Krause, VA PM;
release.		Michael Klein, HP PM;
Updated Title page		Dawn Hoff, Tech Writer
Added Revision History, pp. i-ii		
Updated Table of Contents, pp. iii-iv		
Updated option to read the generic ICD in place of ICD-9, pp. 6-9.		
<sup>3</sup> Patch MD*1.0*20 released. Added new	November 2010	Shirley Ackerman
Exported Options and Updated the Routine		
Descriptions. Added new Parameter		
Definitions.		
<sup>4</sup> Patch MD*1.0*21 released. Updated	June 2010	Shirley Ackerman,
Routine Description, Parameter Definition,		Rachel Wilder
and Menu Options By Name.		
<sup>5</sup> Patch MD*1.0*11 released. Updated	June 2009	Shirley Ackerman,
Routine Description, File and Field		Alfred Bustamante
Description, Parameter Definition, and		

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*42 March 2016 Patch 42 release added <sup>2</sup> Patch MD\*1.0\*29 August 2014 Patch 29 release added <sup>3</sup> Patch MD\*1.0\*20 November 2010 Patch 20 release added <sup>4</sup> Patch MD\*1.0\*21 June 2010 Patch 21 release added.

<sup>&</sup>lt;sup>5</sup> Patch MD\*1.0\*11 June 2009 Patch 11 release added.

Menu Options By Name.		
<sup>1</sup> Patch MD*1.0*6 released. Added	May 2008	Shirley Ackerman,
description of Hemodialysis module and		Alfred Bustamante
508 Compliance to Introduction; updated		
Routine Descriptions, File List, Package		
Default Definition, Remote Procedure		
Calls, Parameter Definitions, menu options,		
Cross References, Callable Routines,		
External Relations, Internal Relations, and		
Glossary. Removed individual vendor		
contact information from Ch.15.		
<sup>2</sup> Patch MD*1.0*14 released. Updated	March 2008	Shirley Ackerman,
Routine Descriptions, File List, Parameter		Alfred Bustamante
Definitions, Protocols, menu options, and		
Cross References. Deleted bad references		
to Sample Reports in Ch. 15.		
<sup>3</sup> Patch MD*1.0*5 released August 2006.	Documented	Shirley Ackerman,
Updated File List, Package Default	February 2008	Alfred Bustamante
Definition, Parameter Definitions, and		
menu options.		
Patch MD*1.0*2 released.	August 2006	
<sup>4</sup> Patch MD*1.0*1 released.	July 2004	
Originally released.	April 2004	

Patch MD\*1.0\*6 May 2008 Patch 6 release added.
 Patch MD\*1.0\*14 March 2008 Patch 14 release added.
 Patch MD\*1.0\*5 August 2006 Patch 5 release added.
 Patch MD\*1.0\*1 and MD\*1.0\*2 July 2004 Patch 2 release added.

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#### Introduction 1.

CP is a conduit for passing final patient results, using Health Level 7 (HL7) messaging, between vendor clinical information systems (CIS) and Veterans Health Information Systems and Technology Architecture (VistA). The patient's test result or report is displayed through the Computerized Patient Record System (CPRS). The report data is stored on the Imaging Redundant Array of Inexpensive Disks (RAID) and in some instances, discrete data is stored in the Medicine database.

CP provides features that can be used across clinical departments such as general medicine, cardiology, pulmonary, women's health, neurology, and rehabilitation medicine.

<sup>1</sup>Hemodialysis is a new module of the Clinical Procedures (CP) package that provides features specific to hemodialysis treatment. The Hemodialysis module allows you to collect hemodialysis treatment information from the medical device, and manually enter treatment data into the application.

Pre-dialysis vitals, information obtained during treatment, and post-dialysis vitals can be entered into the Hemodialysis data entry screens. A Treatment Summary is created and used to fill out Centers for Medicare & Medicaid Services (CMS)/End Stage Renal Disease (ESRD) forms.

#### **Benefits**

#### a. Standardized and Common User Interface

Clinicians can go through the same program, CPRS, to enter, review, interpret, and sign CP orders. CP documents in TIU obey Authorization Subscription Utility (ASU) Business Rules. The update users functionality currently used by Consults determines which users are allowed to access or edit CP documents.

#### b. Integration

The ordering process of a CP procedure is initiated by CPRS and processed through the Consult/Request Tracking Package (Consults). The interpretation of the data is entered and displayed through TIU. The final result of the CP procedure is displayed by VistA Imaging. The ordering, viewing, reviewing, interpreting, and signing of the CP medical record is accessed through one location, the Consults tab in CPRS.

### c. Variety of Accepted File Types

CP is able to accept data/final result report files from automated instruments in .txt, .rtf, .jpg, .jpeg, .bmp, .tiff, .pdf, and .html file types. CP allows additional automated instruments and file types to be added to interface with CP in the future.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Hemodialysis introduction added.

#### d. Links to Other Packages

CP interfaces with packages such as Computerized Patient Record System (CPRS), Consult/Request Tracking Package, Text Integration Utility Package (TIU), and VistA Imaging. New Health Summary components shall be available in the future.

#### e. Interface Between CP and Imaging

Certain images such as consent forms and report objects are acquired, processed, stored, transmitted, and displayed by the VistA Imaging package. This interface will replace existing capture interface between Medicine 2.3 and VistA Imaging.

#### f. Inpatient and Outpatient Workloads

CP Definition file (#702.01) allows for defining the Hospital Location where the procedure is performed. This determines which Encounter Form is presented to the end user. CPRS and TIU parameters allow for the configuration of TIU software to prompt users to enter workload data which is then passed to the Patient Care Encounter software (PCE) for both inpatients and outpatients.

### <sup>1</sup>508 Compliance

**Note:** The following notice applies only to Patch MD\*1.0\*6.

The Clinical Procedures Hemodialysis Software is exempt from coverage under the Section 508 standards. The definition of "electronic and information technology" in the Section 508 standards specifically excludes "medical equipment where information technology is integral to its operation." 36 C.F.R. Section 1194.4. VHA's use of the Clinical Procedures Hemodialysis Software also does not violate Section 508 because it will not affect access to the data or information provided by that software. 29 U.S.C. Section 794d(a). The data or information collected by the software is immediately made available through the CPRS system, which is accessible to people with disabilities.

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<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 508 Compliance notice added.

# 2. Implementation and Maintenance

Refer to Chapter 1 – Introduction of the Clinical Procedures Implementation Guide for implementation and maintenance issues.

Implementation and Maintenance

# 3. Clinical Instrument Interface Specifications

Refer to Chapter 10 of the Clinical Procedures Implementation Guide for information on Setting up HL7 Parameters.

<sup>1</sup>Refer to the Clinical Instrument Bi-Directional Interface Specifications document for information on Clinical Procedures instrument interface specifications. Directions for locating the document follow:

- **1.** Access the Clinical Procedures website: http://vista.med.va.gov/clinicalspecialties/clinproc/
- 2. On the navigation bar found on the left-hand side of the page, hover your mouse pointer over Clinical Procedures Project, then click Documentation.
- 3. Click Clinical Procedures Documents.

Click the **Clinical Procedures Bi-Directional Communication Specification** link to view the document or save a copy.

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<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*14 March 2008 Outdated link removed and replaced with directions to document.

Clinical Instrument Interface Specifications

# 4. Routine Descriptions

```
MDAPI
           ; HOIFO/DP/NCA - CP API Calls ; [05-05-2003 10:28]
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
           ; HOIFO/NCA - Electrocardiogram Data Extraction ;12/4/02 12:32 ;;1.0;CLINICAL PROCEDURES;**1**;Apr 01, 2004
MDAPT1
           ; HOIFO/NCA - Get Text Impression ;2/27/09 12:38 ;;1.0;Clinical Procedures;**21,24**;Apr 01, 2004;Build 8
MDAR7M
MDARP3
           ; HOIFO/NCA - Get Procedures for Medicine ;1/13/04 14:35
           ;;1.0;CLINICAL PROCEDURES;**10,13,24**;Apr 01, 2004;Build 8
MDARSET
           ; HOIFO/NCA - High Volume Check-In Setup ; 7/11/18 1:14pm
           ;;1.0;CLINICAL PROCEDURES;**21,65**;Apr 01, 2004;Build 1
           ;HINES OIFO/DP/BJ/TJ - HL7 Build Admit/Visit Message (A01);15-AUG-2007;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA01
MDCA02
           ;HINES OIFO/DP/BJ/TJ - HL7 Build Transfer a Patient (A02) Message;21-JUN-2007
           ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA03
           ;HINES OIFO/DP/BJ/TJ - HL7 Build Discharge/End Visit (A03) Message;21-JUN-2007
           ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA08
           ;HINES OIFO/DP/BJ/TJ - HL7 Build Update Patient Info (A08) Message;21-JUN-2007
           ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA11
           ;HINES OIFO/DP/BJ/TJ - HL7 Build Cancel Admit/Visit Notice (All) Message;21-JUN-2007
           ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA12
           ;HINES OIFO/DP/BJ/TJ - HL7 Build Cancel Transfer (A12) Message;21-JUN-2007
           ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
           ;HINES OIFO/DP/BJ/TJ - HL7 Build Cancel Discharge/Visit End (A13) Message;21-JUN-2007
MDCA13
           ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCADT
           ;HINES OIFO/DP/BJ/TJ - HL7 Build ADT Axx Messages;10 Aug 2007
           ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
           ;HINES OIFO/DP/BJ/TJ - Wrapper to create HL7 EVN segment;30 May 2006
MDCEVN
           ;;1.0;CLINICAL PROCEDURES;**16,12,23**;Apr 01, 2004;Build 281
MDCTITO
           ;HINES OIFO/DP - CliO backend driver;02 Feb 2005
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
           ;HINES OIFO/DP - CliO backend driver (Continuation);02 Sep 2005
MDCT-TO1
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCLIOV
           ;HINES OIFO/DP - CliO Vitals Link;15 Nov 2010
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
           ;HIOFO/NCA - Cleanup Disabled Studies ;4/19/01 11:52
MDCIN
           ;;1.0;Clinical Procedures;**21**;Apr 01, 2004;Build 30
MDCONUTL
           ; WOIFO/KLM - CP Conversion Utility ; 7/11/18 1:08pm
           ;;1.0;CLINICAL PROCEDURES;**65**;Apr 01, 2004;Build 2
          ;HINES OIFO/BJ - CliO HL7 Handler/validator;09 Aug 2006
MDCPHL7A
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCPHL7B
           ;HINES OIFO/BJ - CliO HL7 Handler/validator;09 Aug 2006
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCPHI.7C
           ; HINES OIFO/BJ - CP Outbound message record maintenance routine.;260CT 2011
           ;;1.0;CLINICAL PROCEDURES;**23**;OCT 26, 2011;Build 281
MDCPID
           ;HINES OIFO/DP/BJ - Wrapper for PID Segment Builder;23 Nov 2005
           ;;1.0;CLINICAL PROCEDURES; **16**; Apr 01, 2004; Build 280
          ;HINES OIFO/TJ - CP Outbound message queue routine.;30 Jul 2007;10/5/11 15:39
MDCPMESO
           ;;1.0;CLINICAL PROCEDURES;**12,23**;Apr 01, 2004;Build 281;ASMR/BLJ,SRG - CliO backend driver;02 Feb 2005; 12/10/15 10:58am
MDCPROTD
           ;;1.0;CLINICAL PROCEDURES; **38**; Sep 25, 2015; Build 290
           ;HINES OIFO/BJ - CliO HL7 Handler/validator;23 Aug 2006
MDCPSTGN
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
           ;HINES OIFO/DP - CP Nightly Purge Options;27 Jan 2008;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCPURG
           ;HINES OIFO/DP/BJ - PV1 Segment Routine;08 Aug 2007
MDCPV1
           ;;1.0;CLINICAL PROCEDURES;**16,23**;Apr 01, 2004;Build 281
MDCPVDEF
           ;HINES OIFO/BJ/TJ - CP Outbound message record maintenance routine.;30 Jul 2007
           ;;1.0;CLINICAL PROCEDURES;**16,12,23**;Apr 01, 2004;Build 281
           ;HINES OIFO/DP/BJ - Build Segment PV1 Routine;17 Aug 2007;;1.0;CLINICAL PROCEDURES;**16,23**;Apr 01, 2004;Build 281
MDCSPV1
MDCUTL
           ;HINES OIFO/DP/BJ/TJ - HL7 Message Utilities;07 June 2007
           ;;1.0;CLINICAL PROCEDURES;**16,12,23**;Apr 01, 2004;Build 281
MDCVT
           ; HOIFO/DP/NCA - Medicine Package Conversion ;10/20/04 12:49
           ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
MDCVT1
           ; HOIFO/NCA - Medicine Package Conversion (Cont.) ;1/6/05 15:12
           ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
           ; HOIFO/NCA - Medicine Conversion Verification Utility; [08-28-2003 11:34]
MDCVTII
           ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
           ;HOIFO/NCA - Collect Device Data ;8:34 AM 9 Jun 2005
MDDEVCL
           ;;1.0;CLINICAL PROCEDURES;**20**;Apr 01, 2004;Build 9;HOIFO/NCA - ELECTRONIC SIGNATURE PRINT;12/21/04 09:24
MDESPRT
```

```
;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
; HOIFO/WAA - Routine to Decode HL7 for CP ;05/21/09 15:57
MDHL7A
           ;;1.0;CLINICAL PROCEDURES;**6,11,21**;Apr 01, 2004;Build 30
           ; HOIFO/WAA -Bi-directional interface routine ;7/23/01 11:41
MDHI.7B
           ;;1.0;CLINICAL PROCEDURES;**41**;Apr 01, 2004;Build 3
           ; HOIFO/WAA, WOIFO/PMK -Bi-directional interface (HL7) routine ;15 Jun 2018 12:46 PM
           ;;1.0;CLINICAL PROCEDURES;**11,21,20,60**;Apr 01, 2004;Build 11
           ; HOIFO/WAA -B-Braun, Fresenius Dialysis ; 06/08/00
MDHT.7D
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDHL7E
           ; HOIFO/WAA -Olympus/CMore/Pentax Endoscopy ; 06/08/00
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
           ; HOIFO/WAA-KenitDx Interface ; 06/08/00 ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 30
MDHL7K1
          ; HOIFO/WAA -HP EnConcert Echo ; 06/08/00
MDHL7K2
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDHI.7M1
          ; HOIFO/WAA - Muse EKG ; [02-06-2002 16:13]
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDHL7M3
           ; HOIFO/WAA-GE IMAGE VAULT INTERFACE ; 08/08/07
           ;;1.0;CLINICAL PROCEDURES;**37**;Apr 15, 2003;Build 4
MDHL7MCA ; HOIFO/REL-Routine to Decode HL7 for MEDICINE ; [05-07-2001 10:38]
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDHL7MCX ; HIRMFO/WAA - Generate HL7 Error Message for MEDICINE ; [05-07-2001 10:38]
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDHL7P1
           ; HOIFO/WAA-Sensormedics, Jaeger Pulmonary; 06/08/00
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
           ; HOIFO/WAA -Clinivision Responatory; 06/13/02
MDHL7R1
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDHL7tJ
           ; HOIFO/WAA -Routine utilities for CP ;7/23/01 \, 11:41
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
          ; HOIFO/WAA -Routine utilities for CP PROCESSING OBX ; 7/26/00
MDHL7U1
           ;11.0;CLINICAL PROCEDURES;**11**;Apr 01, 2004;Build 67; HOIFO/WAA -Utilities for CP PROCESSING OBX text ; 7/26/00
MDHT.7112
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDHL7U3
           ;HOIFO/WAA - Utilities for CP to process HL7 messages ;02/17/10 15:59
           ;;1.0;CLINICAL PROCEDURES;**6,21,29**;Apr 01, 2004;Build 22
MDHT.7X
           ; HOIFO/WAA -Generate HL7 Error Message ; 06/08/00
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDHL7XXX ; HOIFO/DP - Loopback device for CP ;4/10/09 09:20
           ;;1.0;CLINICAL PROCEDURES;**21,34**;Apr 01, 2004;Build 1;WOIFO/DAC - Install code for MD*1.0*60;18 Apr 2018 7:38 AM
MDIPS60
           ;;3.0;IMAGING;**60**;Mar 19, 2002;Build 2
           ;HIOFO/FT-RPC to return patient data ;8/12/16 10:45am
MDKRPC1
           ;;1.0;CLINICAL PROCEDURES; **6,47**; Apr 01, 2004; Build 3
           ; HOIFO/DP - RPC Calls (Cont.);11/27/07 09:42;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDKRPC2
           ; HOIFO/DP - Renal Utilities ;11/29/07 14:45;11.0;CLINICAL PROCEDURES;**14**;Apr 01, 2004;Build 20; HOIFO/DP - Renal Utilities RPC;11/29/07 14:45
MDKUTL
MDKIITI'B
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
           ; HOIFO/NCA - CP Multiple Result Check ;7/26/10 14:27
MDNCHK
           ;;1.0;CLINICAL PROCEDURES;**11,21,20**;Apr 01, 2004;Build 9
          ; HOIFO/NCA - Post Conversion Routine ; [04-14-2003 10:51] ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
MDOUTOR
           ; HIRMFO/NCA - Routine For Data Extract ;6/9/08 13:29
MDPCE
           ;;1.0;CLINICAL PROCEDURES;**5,21**;Apr 01, 2004;Build 30
           ; HOIFO/NCA - Updated Routine For Data Extract ; [05-28-2002 12:55]
MDPCE1
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDPCE2
           ; HOIFO/NCA - Routine For Data Extract For Hemo Dialysis ;1/20/10 10:00
           ;;1.0;CLINICAL PROCEDURES;**6,21,29**;Apr 01, 2004;Build 22
           ;HOIFO/NCA - PFT REPORT-DEMO INFO ;3/15/04 11:55
MDPFTP1
           ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004
MDPFTP2
           ; HOIFO/NCA - PFT REPORT-VOLUMES ;3/15/04 10:00
           ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004
MDPFTP2A ; HOIFO/NCA - PFT REPORT-FLOWS ; 3/17/04 08:22
           ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004
           ; HOIFO/NCA - PFT REPORT-SPECIAL STUDIES (PT 2) ;3/17/04 12:48
MDPFTP3
           ;;1.0;CLINICAL PROCEDURES; **2**; Apr 01, 2004
           ; HOIFO/DP - Post Init ;2/18/04 11:39
MDPOST
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDPOST04 ; HOIFO/DP - Post Init ; 2/18/04 11:39
           ;;1.0;CLINICAL PROCEDURES;**4**;Apr 01, 2004;Build 3
         ; HOIFO/DP - Post Init ;2/7/07 16:15
MDPOST06
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDPOST1
           ; HOIFO/NCA/DP - Build CP DEFINITION file (#702.01) - Optional Post
            Init ; [12-04-2002 13:06]
```

```
;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDPOST16
           ;HINES OIFO/DP - Post Installation Tasks;02 Mar 2008
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
           ; HOIFO/NCA - Post Init ;2/7/07 16:15
MDPOST21
           ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 30
MDPOST23
           ;HINES OIFO/DP/BJ - Post Installation Tasks;06 OCTOBER 2011
           ;;1.0;CLINICAL PROCEDURES;**23**;Apr 01, 2004;Build 281
           ;ASMR/MKB - Post Installation Tasks;02 Mar 2008 ; 12/12/13 8:52pm
MDPOST38
           ;;1.0;CLINICAL PROCEDURES;**38**;Sep 25, 2015;Build 290
MDPOST49
           ;MNTVBB/RRA - Post Installation Tasks;01/07/17
           ;;1.0;CLINICAL PROCEDURES;**49**;Apr 01, 2004;Build 2
           ;MNTVBB/RRA - Post Installation Tasks;01/07/17
MDPOST50
           ;;1.0;CLINICAL PROCEDURES;**50**;Apr 01, 2004;Build 2
           ;MNTVBB/RRA - Post Installation Tasks;01/07/17
MDPOST51
;:1.0;CLINICAL PROCEDURES;**51**;Apr 01, 2004;Build 8
MDPOST52 ;MNTVBB/RRA - Post Installation Tasks;01/07/17
           ;;1.0;CLINICAL PROCEDURES;**52**;Apr 01, 2004;Build 6
           ;Post Installation Tasks ; 4/30/18 8:41am
MDPOST61
           ;;1.0;CLINICAL PROCEDURES;**61**;Apr 01, 2004;Build 1
MDPOST6A ;HOIFO/NCA-Convert Existing Notes to New File ;11/28/07 14:31
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
           ;HINES OIFO/TJ - Pre Installation Tasks;02 Mar 2008
MDPRE12
           ;;1.0;CLINICAL PROCEDURES;**12**;Apr 01, 2004;Build 318
MDPRE16
           ;HINES OIFO/DP - Installation Tasks;02 Mar 2008
           ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
           ;HINES OIFO/BJ - Installation Tasks;07 OCTOBER 2011
MDPRE23
           ;;1.0;CLINICAL PROCEDURES;**23**;Apr 01, 2004;Build 281
           ; HOIFO/NCA - CP/Medicine Report Generator; 5/17/10 08:57;;1.0;CLINICAL PROCEDURES;**2,10,13,21,24**;Apr 01, 2004;Build 8
MDPS1
           ; HOIFO/NCA - CP/Medicine Report Generator (Cont.) ;5/18/04 09:41
MDPS2
           ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004
           ; HOIFO/NCA - Remote Data View Data Retriever for CP ;8/26/05 14:37
MDPS3
           ;;1.0;CLINICAL PROCEDURES;**2,5,13,24**;Apr 01, 2004;Build 8
MDPS4
           ; HOIFO/NCA - Retrieve List of Consult Procedures ;1/26/06
           ;;1.0;CLINICAL PROCEDURES;**13,24**;Apr 01, 2004;Build 8
           ; HOIFO/NCA - Retrieve List of Consult Procedures for RDV ; 3/4/05 13:29
MDPS5
           ;;1.0;CLINICAL PROCEDURES;**13**;Apr 01, 2004;Build 19
           ; HOIFO/NCA - CP/Medicine Report Generator Utility; 5/18/04 09:48
MDPSII
           ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 30; HOIFO/NCA - HS Component Utility;5/18/04 09:48;10/5/09 09:33
MDPSUL
           ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 30
           ;HOIFO/NCA - Study Clean-Up process ;6/18/08 10:15
;;1.0;CLINICAL PROCEDURES;**11**;Apr 01, 2004;Build 67
MDPURGE
           ; HOIFO/NCA - Document Handler Object (TMDNOTE) ;5/23/05 15:50 ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDRPCNT
          ; HOIFO/NCA - Object RPCs (TMDNOTE) Continued 2;10/29/04
MDRPCNT1
                                                                           12:20 ;2/25/09 16:08
           ;:1.0;CLINICAL PROCEDURES;**6,21**;Apr 01, 2004;Build 30; HOIFO/DP - Object RPCs (TMDProcedureDef); [01-09-2003 15:20]
MDRPCOD
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
           ; HOIFO/DP - CP Gateway ; [01-09-2003 15:20]
MDRPCOG
           ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
          ; HOIFO/DP - Object RPCs (Logfile); [02-11-2002 13:41];;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDR PCOL
           ; HOIFO/DP - Object RPCs (TMDOutput) ; [03-24-2003 15:44]
MDRPCOO
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDRPCOP
           ; HOIFO/DP - Object RPCs (TMDPatient) ;8/3/09 10:39
           ;;1.0;CLINICAL PROCEDURES;**4,6,11,20,42**;Apr 01, 2004;Build 12
          ; HOIFO/DP - Object RPCs (TMDPatient) - Cont.; 01-09-2003 15:21 ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDRPCOP1
           ; HOIFO/DP - Object RPCs (TMDRecordId) ; [01-10-2003 09:14]
MDRPCOR
           ;;1.0;CLINICAL PROCEDURES;**17,20**;Apr 01, 2004;Build 9
MDRPCOT
           ; HOIFO/DP/NCA - Object RPCs (TMDTransaction) ;10/26/09 10:23
           ;;1.0;CLINICAL PROCEDURES;**5,6,11,21**;Apr 01, 2004;Build 30
          ; HOIFO/NCA/DP, WOIFO/PMK - Object RPCs (TMDTransaction) - Continued ;03 Jul 2018 9:09
MDRPCOT1
           ;;1.0;CLINICAL PROCEDURES;**5,11,21,41,60**;Apr 01, 2004;Build 11
MDRPCOT2
           ; HOIFO/NCA - Object RPCs (TMDTransaction) Continued 2:10/29/04 12:20 ;3/12/08 09:18
           ;;1.0;CLINICAL PROCEDURES;**6,21,20**;Apr 01, 2004;Build 9
MDRPCOTA
          ; HOIFO/NCA - Object RPCs (TMDTransaction) Continued 2;10/29/04 12:20 ;3/12/08 09:18
           ;;1.0;CLINICAL PROCEDURES;**20**;Apr 01, 2004;Build 9
MDRPCOTH ; HOIFO/NCA - Process High Volume Procedure Results ;2/1/12 16:39
           ;;1.0;CLINICAL PROCEDURES;**21,24**;Apr 01, 2004;Build 8
           ; HOIFO/DP - Object RPCs (TMDUser) ; [01-09-2003 15:21]
MDRPCOU
           ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDRPCOV
           ; HOIFO/DP - Object RPCs (TMDParameter) ; [04-15-2003 12:42]
```

#### **Routine Descriptions**

```
;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDRPCOW
          ; HOIFO/DP/NCA - Billing Widget ;10/3/05 12:17
          ;;1.0;CLINICAL PROCEDURES;**6,29**;Apr 01, 2004;Build 22
          ; HOIFO/DP - Object RPC Utilities ; [05-23-2003 10:16]
MDRPCII
          ;;1.0;CLINICAL PROCEDURES;**4**;Apr 01, 2004;Build 3
MDRPCW
          ; HOIFO/NCA - Calls to AICS ; 01/21/10 11:51
          ;;1.0;CLINICAL PROCEDURES;**6,21,20,29**;Apr 01, 2004;Build 22
MDRPCW1
         ; HOIFO/NCA - MD TMDENCOUNTER Object ;2/16/10 16:17
          ;;1.0;CLINICAL PROCEDURES;**6,21,20,29**;Apr 01, 2004;Build 22
          ;HOIFO/NCA - CPT Code Query ;2/16/10 16:17 ;;1.0;CLINICAL PROCEDURES;**21,29**;Apr 01, 2004;Build 22
MDRPCWU
          ; HOIFO/NCA - Print List of Document Titles Needed ;10/21/04 13:44 ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
MDSTATU
         ; HOIFO/NCA - Clinical Procedures Studies List ;10/26/05 11:46
MDSTUDL
          ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
         ; HOIFO/NCA - Print a List of Procedures With Incomplete Workload ;3/2/09 10:00
MDSTIIDW
          ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 30
          ;HINES OIFO/DP - Terminology Utilities;04 Jan 2006
MDTERM
          ;;1.0;CLINICAL PROCEDURES;**16,23**;Apr 01, 2004;Build 281
MDTERMX
         ;HINES OIFO/DP - Installation Tasks; 02 Mar 2008; 8/4/17 6:45am
          ;;1.0;CLINICAL PROCEDURES;**48**;Aug 2, 2012;Build 5
          ; HOIFO/WAA -Utilities for XML text ; 7/26/00
MDIIXMI.
          ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
          ; HOIFO/WAA -Utilities for XML text ; 7/26/00
M.TMXTICIM
          ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDUXMLOX ; HOIFO/WAA -OBX converter XML text ; 7/26/00
          ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDUXMLU1 ; HOIFO/WAA -Utilities for XML text ; 7/26/00
          ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDWCAN
          ;HOIFO/NCA - Process No-Shows and Cancels ;7/29/08 09:50
          ;;1.0;CLINICAL PROCEDURES;**11,21**;Apr 01, 2004;Build 30
          ; HOIFO/NCA - Create CP Studies for Existing Procedures ;12/13/07 15:52
MDWCHK
          ;;1.0;CLINICAL PROCEDURES;**14**;Apr 01,2004;Build 20
MDWOR
          ; HOIFO/NCA - Main Routine to Decode HL7 ;9/8/08 15:20
          ;;1.0;CLINICAL PROCEDURES;**14,11,21,20,37,42**;Apr 01,2004;Build 12
          ; HOIFO/NCA - Main Routine to Decode HL7 from Consult ;1/8/08 15:00
MDWORC
          ;;1.0;CLINICAL PROCEDURES;**14**;Apr 01,2004;Build 20
          ; HOIFO/NCA - Daily Schedule Studies; 7/2/04 12:39 ; 26 Sep 2017 2:24 PM
          ;;1.0;CLINICAL PROCEDURES;**14,11,21,20**;Apr 01,2004;Build 9
         ; HOIFO/NCA - Auto Study Check-In Setup ;3/18/08 14:14
MDWSETUP
          ;;1.0;CLINICAL PROCEDURES;**14,11,37,45**;Apr 01, 2004;Build 1
          ; HOIFO/DP - Fileman -> XML Utilities ; [01-10-2003 09:14]
MDXMLFM
          ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDXMLFM1 ; HOIFO/DP/NCA - Data -> XML Utilities ; [01-10-2003 09:14]
          ;;1.0;CLINICAL PROCEDURES; **6**; Apr 01, 2004; Build 102
```

# 5. File List and Related Information

# **File and Field Descriptions**

#### **CP Transaction File - #702**

This file contains the studies between the instruments and user generated data as it is matched to a consult order and a TIU document is created for the results. It also manages the interface between the images and the Imaging RAID.

Field Name	Field Number	Format	Description
Patient	702,.01	Pointer to Patient	This field contains a pointer to
		(#2) file	the Patient (#2) file for this study.
SSN	702,.011	Computed	This field contains the computed
			value of the patient's SSN from
			the Patient (#2) file.
DOB	702,.012	Computed	This field contains the computed
			value of the patient's date of birth
			from the Patient (#2) file.
Created Date/Time	702,.02	Date	This field contains the date/time
			the study was created within the
			CP User executable.
Created By	702,.03	Pointer to New	This field contains the DUZ of
		Person (#200) file	the user that created this study.
CP Definition	702,.04	Pointer to CP	This field contains a pointer to
		Definition	the CP Definition (#702.01) file
		(#702.01) file	of the procedure definition that
			this study represents.
Consult Number	702,.05	Free Text 1-20	This field contains an IEN of the
		characters in length	Consult (#123) file representing
			the Consult order that is matched
			up to this study.
TIU Note	702,.06	Pointer to TIU	This field contains a pointer to
		Document (#8925)	the TIU Document (#8925) file
		file	representing the note that
			contains the interpretation of this
			study as well as the links to the
			associated images.
Vstring	702,.07	Free Text 1-50	This field contains This field
		characters in length	contains the vstring. The vstring
			is in the following format: Visit
			Type_";"_Visit
			Date/Time_";"_Hospital Location
			(internal entry number of the
			visit).

Field Name	Field Number	Format	Description
Transaction	702,.08	Free Text 1-80	Contains the message returned
Message		characters in length	from the VistA Imaging API's for
		_	storing the images on the server.
Transaction Status	702,.09	Set:	This field contains the status of
		0 - New	this study.
		1 - Submitted	
		2 - Error	
		3 - Complete	
Error Messages	702.091,.01	Number between 1-	Error message number.
(multiple)	·	9999, 0 decimal	
		digits	
Date Received	702.091,.02	Date	Date and time this error message
	·		was generated.
Received From	702.091,.03	Free Text 1-30	Where the error was generated.
	·	characters in length	
Message	702.091,.09	Free Text 1-150	Text of the error message.
		characters in length	
Image (multiple)	702.1,.01	Number between 1-	Index of attached image for this
		999, 0 decimal	study.
		digits	
Туре	702.1,.02	Set:	Type of attachment to be
		I - Instrument data	processed.
		U - User supplied	
		file	
Result Report	702.1,.03	Pointer to CP	Pointer to the CP Result Report
_		Result Report	(#703.1) file containing the
		(#703.1) file	attachment from the instrument.
Status	702.1,.09	Set:	Status of this image.
		0 - Submitted to	_
		server	
		1 - Error in	
		submission	
		2 - Error in filing	
		3 - Copied to server	
UNC	702.1,.1	Free Text 1-245	Contains the Universal naming
		characters in length	Convention (UNC) for this
			attachment.
Submitted to	702,.11	Pointer to CP	Points to the instrument definition
Instrument		Instrument	that this study was submitted to at
		(#702.09) file	the time of check-in.

Field Name	Field Number	Format	Description
Instrument Order	702,.12	Free Text 1-22	Contains the unique order number
Number		characters in length	for this study that is sent to the bi-
			directional instrument.
<sup>1</sup> Visit	702,.13	Pointer to Visit	This is the Visit number returned
		(#9000010) file	from PCE. Reference IA# 1902.
<sup>2</sup> Scheduled	702,.14	Date	This field contains the date/time
Date/Time			when the HL7 message should be
			sent by CP to the device for this CP
3C : ID	702.2	E + 1 20	transaction.
<sup>3</sup> Conversion ID	702,.3	Free text 1-30	This field is the Reference
Reference		characters in length.	Conversion ID. It is a variable
			Pointer to the Medicine files. It
			indicates which converted
			Medicine
			report record is associated with
			the CP Transaction study. This
			field helps to keep track which
			CP Transaction study was created
			for the Medicine report
			conversion.
Image Count	702,.991	Computed	Computed field to return the
			number of images associated with
			this study.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Field added to support the storing of the Clinical Indicator questions, CPT and ICD9 codes in the CP Transaction file.

 $<sup>^2</sup>$  Patch MD\*1.0\*14 March 2008 Field added to support the auto study check-in with scheduled appointment date/time.

<sup>&</sup>lt;sup>3</sup> Patch MD\*1.0\*5 August 2006 Field added.

## <sup>1</sup>CP\_Transaction\_TIU\_History File - #702.001

This CP Transaction TIU History file stores all TIU notes that is associated with the CP Transaction study. This will keep track of multiple notes associated with one CP study.

Field Name	Field Number	Format	Description
Study_ID	702.001,.01	Pointer To CP	This field contains a pointer to
		Transaction File	the CP Transaction file (#702).
		(#702)	
TIU_Note_ID	702.001,.02	Pointer To TIU	This field contains a pointer to
		Document File	the TIU Document file (#8925)
		(#8925)	representing the note that
			contains the interpretation of this
			CP Transaction. (Reference IA
			#3376)
Date_Assigned	702.001,.03	Date	This field contains the date/time
			when the TIU note was assigned
			to this transaction.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 File 702.001 added.

#### **CP Definition File - #702.01**

This file defines all the procedures used by the Clinical Procedures package. All elements that define a procedure are in this file. This file is exported with data, but entries may be added by the site.

Field Name	Field Number	Format	Description
Name	702.01,.01	Free Text 3-30	This field contains the name of
		characters in length	the procedure. It should be
			descriptive of the procedure and
			contain 3-30 alphanumeric
			characters. The first character
			MUST be a letter. To maintain
			consistency it is recommended
			that all procedures be entered in
			UPPERCASE letters as well.
Treating Specialty	702.01,.02	Pointer to Facility	This field defines the specialty
		Treating Specialty	that this procedure falls under.
		(#45.7) file	
Require External	702.01,.03	Set:	Setting this field to Yes will force
Data		0 - No	a consult for this procedure to be
		1 - Yes	processed via the CP User
			executable for matching whether
			or not there are instruments
			associated with it.
Default TIU Note	702.01,.04	Pointer to TIU	This field contains a TIU Note
		Document	Title to use as the default when
		Definition	CP creates a note for
		(#8925.1) file	interpretation for this procedure.
Hospital Location	702.01,.05	Pointer to Hospital	This is the location that will be
		Location (#44) file	used when creating the TIU Note
			for interpretation.
<sup>1</sup> Processing	702.01,.06	Set:	This field is used to indicate if
Application		1 - Default	this is a Hemodialysis procedure
		2 – Hemodialysis	or not. The field is a set of codes,
			1=DEFAULT so it will be
			processed by Clinical Procedures
			or 2=HEMODIALYSIS and the
			procedure will be processed by
	<b>-</b> 0.0 0.1 0		the Hemodialysis application.
Auto Submit	702.01,.07	Set:	This field only applies to bi-
		0 - No	directional instruments. It is used
		1 - Yes	to indicate whether or not the

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Field added to the CP Definition file.

			image attachment should be automatically submitted to VistA Imaging once the procedure is performed and the result is passed to CP.
External Data Directory	702.01,.08	Free Text 3-150 characters in length	This field contains a reference to a network share where user supplied attachments are located for this procedure.
Active	702.01,.09	Set: 0 - No 1 - Yes	Yes/No to indicate active procedures that can be linked to Consults.
Instrument (multiple)	702.011,.01	Pointer to CP Instrument (#702.09) file	Contains a pointer to an instrument that generates results for this procedure.
<sup>1</sup> Processed Result	702.01,.12	Set: 0 - Final Result 1 - Multiple Results 2 - Cumulative Result	This field is a flag which indicates whether a final result, multiple results, or cumulative result is associated with this procedure.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*11 June 2009 New field added.

# **CP Instrument File - #702.09**

This file contains the list of instruments used by the Clinical Procedures package. This file is exported with data.

Field Name	Field Number	Format	Description
Name	702.09,.01	Free Text 3-30	Name or mnemonic of
		characters in length	instrument. Used by vendor in
			HL7 message header.
Notification	702.09,.02	Pointer to Mail	Mail group that will receive error
Mailgroup		Group (#3.8) file	messages and other notifications
			dealing with this device from the
			interface routines.
Description	702.09,.03	Free Text 1-50	This field contains a short
		characters in length	informational description for the
			instrument.
Delete when	702.09,.05	Set:	Select Yes if you want files
Submitted		0 - No	created by this instrument deleted
		1 - Yes	once they are successfully copied
			to the VistA Imaging RAID.
			Deletion will be performed by the
			VistA Imaging application.
Printable Name	702.09,.06	Free Text 3-30	Name of instrument that is
		characters in length	printed on the reports, etc.
Default File Ext	702.09,.07	Free Text (e.g., .txt)	Default file extension for vendor
			instrument reports (e.g., .doc,
			.pdf).
Serial Number	702.09,.08	Free Text 1-50	Vendor serial number of the
		characters in length	instrument (for reference only).
Active	702.09,.09	Set:	Whether or not the instrument is
		0 - No	active on the network.
		1 - Yes	
Processing Routine	702.09,.11	Free Text 1-8	MUMPS routine used to process
		characters in length	interface information.
Processing Code	702.09,.12	Set:	Where data is to be processed:
		M - Medicine	M - Medicine
		C - CP V. 1.0	C - Clinical Procedures
		B - Both	B - Both
Bi-directional	702.09,.13	Set:	This field indicates whether or
		0 - No	not this device can accept HL7
		1 - Yes	messages from VistA.
IP Address	702.09,.14	Free Text 7-15	This field contains the IP address
		characters in length	of this instrument.

Field Name	Field Number	Format	Description
Port	702.09,.15	Number between 1000-99999, 0 decimal digits	This field contains the port number for this instrument.
HL7 Instrument ID	702.09,.16	Free Text 3-30 characters in length	This is the name of the actual device where the device name can be "SMC St Louis".
HL7 Universal Service ID	702.09,.17	Free Text 1-48 characters in length	This field defines what type of procedure the device can perform if the device can perform multiple types of procedures.
HL7 Logical Link	702.09,.18	Pointer to the HL Logical Link (#870) file	This field contains the HL7 logical link.
CP - DICOM Interoperability	702.09,.19	Set of Codes	0:No special action 1:Use VistA Imaging accession number sss-GMR-nnnnnnn 2:Use VistA Imaging HL7 instead of CP's HL7
Server Name	702.09,.21	Free Text 1-30 characters in length	Network name of instrument server where the report is stored.
Server Share	702.09,.22	Free Text 1-30 characters in length	Share folder/drive of the instrument server where the report is stored.
Server Path	702.09,.23	Free Text 1-150 characters in length	Path on the network where the report is stored.
Server Executable	702.09,.24	Free Text 1-30 characters in length	Name of server program that is run to create the report for the interface.
Process UNC	702.09,.301	Set: 0 - No 1 - Yes	Enter Yes if this instrument produces UNC type data.
Process Text	702.09,.302	Set: 0 - No 1 - Yes	Enter Yes if this instrument produces text type data.
Process URL	702.09,.303	Set: 0 - No 1 - Yes	Enter Yes if this instrument produces URL type data.
Process DLL	702.09,.304	Set: 0 - No 1 - Yes	Enter Yes if this instrument produces DLL type data.
Process UUEncode	702.09,.305	Set: 0 - No 1 - Yes	Enter Yes if this instrument produces UUEncode type data.

Field Name	Field Number	Format	Description
Process XML	702.09,.306	Set:	Enter Yes if this instrument
		0 - No	produces XML type data.
		1 - Yes	
Process XMS	702.09,.307	Set:	Enter Yes if this instrument
		0 - No	produces XMS type data.
		1 - Yes	
Consult Keep	702.09,.401	Set:	Enter Yes to keep consult note
Open		0 - No	open or No to close consult note.
		1 - Yes	

## **CP Result Report File - #703.1**

This file contains the information for the results uploaded from the medical instruments used by Clinical Procedures. It is distributed without any data. All fields are automatically stuffed by Clinical Procedures. There is no user input.

Field Name	Field Number	Format	Description			
Upload ID	703.1,.01	Free Text 1-30	Unique identifier assigned for			
		characters in length	each upload.			
Patient	703.1,.02	Pointer to Patient	Pointer to the Patient (#2) file of			
		(#2) file	the patient uploaded from the			
			result of the instrument.			
Date/Time	703.1,.03	Date	Date/time the procedure was			
Performed			performed on the instrument.			
Instrument	703.1,.04	Pointer to CP	Pointer to the CP Instrument			
		Instrument	(#702.09) file of the instrument			
		(#702.09) file	that produced these reports.			
Study Reference	703.1,.05	Pointer to CP	This field is used as a reference to			
Number		Transaction file	the transaction.			
		(#702)				
HL7 Reference	703.1,.06	Free Text 1-30	This field is used to keep the IEN			
Number		characters in length	of the HL7 message. It serves as			
			a reference to the message that			
			will be purged once the data has			
			been successfully moved to the			
<b>Q</b>	7021.00		VistA Imaging server.			
Status	703.1,.09	Set:	Status of the results:			
		U - Unmatched	U - Unmatched			
TT 1 1T.	702 11 01	M - Matched	M - Matched			
Upload Item	703.11,.01	Set:	This field contains the type of			
(multiple)		1 - Impression Text	data element that was uploaded			
		2 - Report Text	from the instrument.			
		3 - Attachment UNC				
		4 - Attachment URL				
		5 - UUEncoded Data				
		6 - DLL 7 - XML Data				
Attachment UNC	702 11 02	8 - XML Style Sheet Free Text 1-240	This field contains the Universal			
Auachment UNC	703.11,.02					
		characters in length	Naming Convention (UNC) for this attachment. This indicates			
			where the attachment is located.			

Field Name	Field Number	Format	Description
Item Value	703.11,.1	Free Text 1-245	If the uploaded item is a single
		characters in length	string value, it is stored here.
Item Text	703.11,.2	Word-Processing	If the uploaded data is multi-
			lined, it is stored here.

### <sup>1</sup>CP Conversion File- #703.9

This file is used for storing the site parameters needed and used to convert Medicine reports to CP Text reports. This file also stores the status of the conversion process for each converted Medicine report.

Field Name	Field	Format	Description			
N	Number		This field contains the name of the CP			
Name	703.9,.01	Free Text (Required)				
			conversion. It is only accessible by the			
			CP conversion routine. It is exported			
3.5.1	702.0.02	G .	with one "DEFAULT" entry.			
Mode	703.9,.02	Set:	This field indicates if the CP conversion			
		0 - test	is in test or real mode.			
		1 - real				
Administrative	703.9,.03	Pointer to new person file	This field points to the New Person file			
Closure User		(#200)	(#200). It is used to indicate the			
			Administrative Closure person used to			
			close the TIU documents for the CP			
			conversion.			
Scratch HFS	703.9,.1	Free Text	This field stores the scratch HFS			
Directory			directory used for the CP conversion.			
			CP conversion program will use this			
			directory to convert Medicine reports.			
Medicine File	703.91,.01	Pointer to File file (#1)	This field points to the File file (#1). It			
Parameters			is used to store the Medicine file			
			number that this parameter is pertaining			
			to. (Reference IA #4507)			
CP Definition	CP Definition 703.91,.02 Point to		This field contains the CP Definition to			
		File (#702.01)	which the Medicine Report will be			
			mapped.			
Convert Y/N	703.91,.03	Set:	This field is used as a flag to mark the			
		0 - No	Medicine Report. Enter 0 for 'to not			
		1 - Yes	convert' or 1 for 'to convert'.			
Convert if No Status	703.91,.04	Set:	This field is used as a flag to indicate			
	·	0 - No	whether the Medicine report should be			
		1 - Yes	converted or not be converted, if there			
			is no status for the report. The field is 0			
			for 'not to convert' or 1 for 'to convert'.			
Use TIU Note Title	703.91,.05	Pointer to TIU Document	This field stores the Historical TIU note			
		Definition File (#8925.1)	title used for the conversion of the			
		, , , ,	Medicine reports to CP reports.			
			(Reference IA #3377 and 3568)			

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*5 August 2006 CP Conversion File #703.9 added.

		698.1 V LEAD IMPLANT 698.2 A LEAD IMPLANT 698.3 PACEMAKER SURVEILLANCE
		SURVEILLANCE 699 ENDOSCOPY/CONSULT 699.5 GENERALIZED PROCEDURE/CONSULT
		700 PULMONARY FUNCTION TESTS 701 RHEUMATOLOGY
703.92,.02	Set: CR - Converted Real Mode CT - Converted Test Mode E - Error	This is the status field of the conversion log. There are five set of codes: CR - Converted Real Mode CT - Converted Test Mode E - Error S - Skipped R - Ready to Convert
7	03.92,.02	CR - Converted Real Mode CT - Converted Test Mode

New TIU Document IEN	703.92,.03	Free Text	This field contains a pointer to the TIU Document file (#8925). (Reference IA #4796). This will hold the internal entry number of the document of the converted medicine report.		
Lines	703.92,.04	Number	This field contains the line count of the Medicine report that was converted.		
Bytes	703.92,.05	Number	This field contains the number of bytes of the Medicine report that was converted.		
Error Msg	703.92,.1 Free Text		This field stores the error message during the conversion of the Medicine report.		

# <sup>1</sup>Hemodialysis Access Points File - #704.201

This new file contains information on access points used by the Hemodialysis application.

Field Name	Field Number	Format	Description
Patient_ID	704.201,.01	Pointer to patient	This field contains the patient
		file (#2)	DFN. (Required)
Access Points	704.201,.1	Word Processing	This field holds the XML in
			UUEncoded format for this
			patient's access points for dialysis
			treatments.
Access History	704.201,.2	Word Processing	This field holds the XML in
			UUEncoded format for this
			patient's access history for
			dialysis treatments.
Infection History	704.201,.3	Word Processing	This field holds the XML in
			UUEncoded format for this
			patient's infection history for
			dialysis treatments.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 File 704.201 added.

## <sup>1</sup>Hemodialysis Study File - #704.202

This new file contains information on hemodialysis studies used by the Hemodialysis application.

Field Name	Field Number	Format	Description
ID	704.202,.01	Pointer to CP	This field contains the IEN of the
		Transaction file	CP STUDY (File #702) for this
		(#702)	dialysis treatment. (Required)
Patient	704.202,.02	Pointer to Patient	Pointer to the PATIENT (File #2)
		file (#2)	of the patient for this dialysis
			treatment.
Study_DateTime	704.202,.03	Computed date	Computed field used to allow
			automated XML creation with
			appropriate tag/value pairs.
Study_Location	704.202,.04	Computed	Computed field used to allow
			automated XML creation with
			appropriate tag/value pairs.
Status	704.202,.09	Set:	Contains the status of this
		0 - Closed	procedure.
		1 - Active	
Study Data	704.202,.1	Word Processing	Contains the study data XML
			document in UUEncoded format.
Summary	704.202,.2	Word Processing	Contains the summary data XML
			document in UUEncoded format.
Flowsheet	704.202,.3	Word Processing	Contains the flowsheet data XML
			document in UUEncoded format.
Med Log	704.202,.4	Word Processing	Contains the med log data XML
			document in UUEncoded format.
Note List	704.202,.5	Word Processing	This field contains the Note List
			data XML document in
			UUEncoded format.
Event Log	704.202,.6	Word Processing	This field contains the Event Log
			data XML document in
			UUEncoded format.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 File 704.202 added.

## <sup>1</sup>Hemodialysis Setting File - #704.209

This new file contains information on hemodialysis settings used by the Hemodialysis application.

Field Name	Field Number	Format	Description
Setting Name	704.209,.01	Free Text 3-30	Contains the descriptive name of
		characters in length.	the data contained in this setting.
		Not numeric or	
		starting with	
		punctuation.	
Owner	704.209,.02	Pointer to new	If this setting is user specific, this
		person file (#200)	field will contain that user's
			DUZ.
User	704.209,.03	Pointer to new	This field displays the user name
		person file (#200)	that is locking the Hemodialysis
			setting option.
Date/Time of Lock	704.209,.04	Input transform:	This field will store the date and
		S %DT="ET" D	time of when the Hemodialysis
		^%DT S X=Y	setting option was locked for use.
		K:Y<1 X	
Process ID	704.209,.05	Free text 3-40	This field will store the JOB ID
		characters in length.	of the process that is locking the
		Input transform:	Hemodialysis setting option.
		K: L(X) > 40! (L(X)	
		)<3) X	
XML Document	704.209,.1	Word Processing	Contains the XML document for
			this setting in UUEncoded
			format.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 File 704.209 added.

# **Package Default Definition**

FILE #	NAME	UP DATE DD	SEND SEC. CODE	DATA COMES W/FILE	SITE DATA	RSLV PTS	USER OVER RIDE
702 1702.001 702.01 702.09 703.1 2703.9 3704.201 704.202 704.209	CP TRANSACTION  CP_TRANSACTION_TIU_HISTORY  CP DEFINITION  CP INSTRUMENT  CP RESULT REPORT  CP CONVERSION  HEMODIALYSIS ACCESS POINTS  HEMODIALYSIS STUDY  HEMODIALYSIS SETTINGS	YES	YES	NO NO NO YES NO NO NO NO	ADD	NO	NO

Patch MD\*1.0\*6 May 2008 Default definition added for 702.001.
 Patch MD\*1.0\*5 August 2006 Default definitions added for 703.9.
 Patch MD\*1.0\*6 May 2008 Default definitions added for 704.201, 704.202, and 704.209.

# 6. Exported Options

### **Delphi Components**

Clinical Procedures uses RPC Broker and custom Delphi Components in the display and navigation of screens. Below is a list of the Delphi components this application currently uses along with a short description.

#### **TMDRecordSource = class(TComponent)**

This is the primary component that all others interact with. This component represents a record within FileMan via the Data Dictionary Number and the IEN. In the event that the record is a sub-file then this component will point to another TMDRecordSource that represents the parent record of the sub-record. There is no limit to the number of sub-records that can be linked together.

#### **TMDEdit** = **Class**(**TEdit**)

This component is designed to manage FileMan Free-Text and Numeric type fields. Other types may be used here with the exception of word-processing but they will require exact data input (i.e. non-ambiguous entries must be entered in the case of pointers or set of codes types). All input and output transforms are applied to the field on validation.

#### **TMDEditPointer = Class(TComboBox)**

This component is designed to manage FileMan Pointer types. This component currently handles screens via hard coded screens on the server side in routine MDRPCOR.

#### TMDLabel = Class(TLabel)

This component is a static component that can display one of three data elements for a FileMan field. These are 1) Data value 2) Field Title or 3) Field Help Text. There is no server update associated with this component.

#### **TMDMemo = Class(TMemo)**

This component manages FileMan word-processing data types only. It will validate the data upon leaving the component.

#### **TMDComboBox = Class(TComboBox)**

This component was designed for either set of codes or pointer type fields. If using a pointer type field the developer must be aware that the entire pointed to file will be retrieved so large files such as the Patient file (#2) is not possible to represent with this component. Files such as the State file (#5) are handled quite well if there are approximately 100 or less entries and the pointed to file does not have complex output transforms on the .01 field.

## TMDRadioGroup = Class(TRadioGroup)

This field was designed specifically for the FileMan set of codes field. It loads the appropriate codes into the radio group and displays the 'Stands For' portion of the codes while storing to the database the internal value of the code.

#### **TMDCheckBox = Class(TCheckBox)**

This component was designed for a set of codes that are restricted to only two codes (i.e. Yes/No, True/False, On/Off).

## **Remote Procedure Calls (RPC)**

NAME: MD GATEWAY TAG: RPC

ROUTINE: MDRPCOG RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

VERSION: 1

NAME: MD TMDOUTPUT TAG: RPC

ROUTINE: MDRPCOO RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

DESCRIPTION:

Manages the output of VistA data to the client via the default HFS device.

PARAMETER TYPE: LITERAL RECHITERD: VEC INPUT PARAMETER: OPTION

MAXIMUM DATA LENGTH: 30 REQUIRED: YES

SEQUENCE NUMBER: 1

DESCRIPTION:

Currently set to EXECUTE as the only option.

INPUT PARAMETER: RTN PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 30 REQUIRED: YES

SEQUENCE NUMBER: 2

DESCRIPTION:

Contains the routine to produce the output. Currently to client produces this parameter in the form of TAG^ROUTINE(needed parameters) to simplify

the calling process.

RETURN PARAMETER DESCRIPTION: Text of the requested report.

NAME: MD TMDPARAMETER TAG: RPC

ROUTINE: MDRPCOV RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

DESCRIPTION:

Used to set/retrieve/modify parameters in the Kernel ToolKit PARAMETERS (XPAR) files.

RPC is called as follows:

Param[0] := OPTION Param[1] := Entity

Param[2] := Parameter name

Param[3] := Instance Param[4] := Value

INPUT PARAMETER: OPTION PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 10 REQUIRED: YES

SEQUENCE NUMBER: 1

DESCRIPTION:

Contains the option for the RPC. RPC is called as shown:

Options and other required parameters include:

ENTVAL ENT

GETPAR ENT, PAR, INST

GETLST ENT, PAR

ENT, PAR, INST GETWP SETPAR ENT, PAR, INST, VAL

SETLST ENT,PAR,,.VAL (Uses instance 0-n) SETWP ENT,PAR,INST,.VAL

ENT, PAR, INST DELPAR

ENT, PAR DELLST

INPUT PARAMETER: ENTITY PARAMETER TYPE: LITERAL MAXIMUM DATA LENGTH: 20 REQUIRED: NO

REQUIRED: NO

SEOUENCE NUMBER: 2

DESCRIPTION:

An entity is a level at which you can define a parameter. The entities allowed are stored in the Parameter Entity file (#8989.518). The list of allowable entities at the time this utility was released were:

Prefix	Message	Points to File
PKG	Package	Package (9.4)
SYS	System	Domain (4.2)
DIV	Division	Institution (4)
SRV	Service	Service/Section (49)
LOC	Location	Hospital Location (44)
TEA	Team	Team (404.51)
CLS	Class	Usr Class (8930)
USR	User	New Person (200)
BED	Room-Bed	Room-Bed (405.4)
OTL	Team (OE/RR)	OE/RR List (101.21)

The entity may be referenced as follows:

- 1) The internal variable pointer (nnn;GLO(123,)
- 2) The external format of the variable pointer using the 3 character prefix (prefix.entryname)
- 3) The prefix alone to set the parameter based on current entity selected. (prefix)

Method 3 uses the following values for the following entities:

Current value of DUZ

Current value of DUZ(2) DIV

SYS System (domain)

Package to which the parameter belongs PKG

INPUT PARAMETER: PAR PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 30 REQUIRED: NO

SEQUENCE NUMBER: 3

DESCRIPTION:

A parameter is the actual name which values are stored under. The name of the parameter must be namespaced and it must be unique. Parameters can be defined to store the typical package parameter data (e.g. the default add order screen), but they can also be used to store GUI application screen settings a user has selected (e.g. font or window width). When a parameter is defined, the entities, which may set that parameter, are also defined. The definition of parameters is stored in the PARAMETER DEFINITION file (#8989.51).

NOTE: This utility restricts the parameter name to those in the Clinical Procedures namespace (MD\*).

PARAMETER TYPE: LITERAL INPUT PARAMETER: INST

MAXIMUM DATA LENGTH: 30 REQUIRED: NO

SEQUENCE NUMBER: 4

DESCRIPTION:

Most parameters will set instance to 1. Instances are used when more than one value may be assigned to a given entity/parameter combination. An example of this would be lab collection times at a division. A single division may have multiple collection times. Each collection time would be assigned a unique instance.

INPUT PARAMETER: VAL PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 80 REQUIRED: NO SEQUENCE NUMBER: 5

DESCRIPTION:

A value may be assigned to every parameter for the entities allowed in the parameter definition. Values are stored in the PARAMETERS file (#8989.5). VAL may be passed in external or internal format. If using internal format for a pointer type parameter, VAL must be preceded with the grave (`) character. If VAL is being assigned to a word processing parameter, the text is passed in the subordinate nodes of VAL (e.g. VAL(0-n)=Text). RETURN PARAMETER DESCRIPTION:

Returns requested data from the specified option.

NAME: MD TMDPATIENT

ROUTINE: MDRPCOP RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

NAME: MD TMDPROCEDURE TAG: RPC

ROUTINE: MDRPCOD RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

NAME: MD TMDRECORDID TAG: RPC

ROUTINE: MDRPCOR RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

DESCRIPTION:

General RPC for VA Fileman functions.

Param 1 is passed in as the function to perform and includes the following:

LOOKUP: Performs very generic file lookup functionality VALIDATE: Validates input to a fileman field and saves to FDA

DELREC: Validates ability to delete and if able deletes a record

SETFDA: Validates input and stores in FDA SAVEFDA: Saves any data stored in FDA

CLEARFDA: Clears any data in the FDA without saving

GETDATA: Retrieves a single field value

GETCODES: Retrieves the set of codes for a field

GETLABEL: Retrieves a fields TITLE or LABEL if no Title GETIDS: Returns required identifiers for a DD Number

GETHELP: Returns Fileman help for a field

RENAME: Validates and renames .01 field if valid

NEWREC: Creates a new record

CHANGES: Returns 0/1 if changes exist in FDA CHKVER: Version check Client <-> Server

LOCK: Locks a record by DD and IENS

UNLOCK: Unlocks record locked by LOCK option INPUT PARAMETER: OPTION

PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 30 REQUIRED: YES

SEQUENCE NUMBER: 1

DESCRIPTION:

See description of RPC.

PARAMETER TYPE: LITERAL MAXIMUM DATA LENGTH: 10 REOUIRED: NO SEQUENCE NUMBER: 2 INPUT PARAMETER: DDNUM

DESCRIPTION:

Contains the Data Dictionary number of the item being manipulated. PARAMETER TYPE: LITERAL INPUT PARAMETER: IENS

MAXIMUM DATA LENGTH: 20 REOUIRED: NO SEQUENCE NUMBER: 3

DESCRIPTION:

Contains the IENS of the record being manipulated.

INPUT PARAMETER: FLD PARAMETER TYPE: LITERAL

IPUT PARAMETER: FLD MAXIMUM DATA LENGTH: 10 REQUIRED: NO

SEQUENCE NUMBER: 4

DESCRIPTION:

Contains field specifications for the record.

INPUT PARAMETER: DATA PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 30 REOUIRED: NO

SEOUENCE NUMBER: 5

DESCRIPTION:

Contains any other needed information for the call.

RETURN PARAMETER DESCRIPTION:

Returns global array of requested data or status.

NAME: MD TMDTRANSACTION
ROUTINE: MDRPCOT TAG: RPC

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

NAME: MD TMDUSER TAG: RPC

ROUTINE: MDRPCOU RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

DESCRIPTION:

Manages the VistA interface to the TMDUser object.

Available options:

SIGNON Connects session to the server and attempts signon.

ESIG Verifies passed e-sig.
CHKVER Verifies client version is compatible with server. INPUT PARAMETER: OPTION PARAMETER TYPE: LITERAL MAXIMUM DATA LENGTH: 30 REQUIRED: YES

SEQUENCE NUMBER: 1

**DESCRIPTION:** 

See RPC description.

See RPC description.

INPUT PARAMETER: DATA PARAMETER TYPE: LITERAL MAXIMUM DATA LENGTH: 250 REQUIRED: NO

SEOUENCE NUMBER: 2

DESCRIPTION:

Required data for selected option.

RETURN PARAMETER DESCRIPTION:

Returns global array of status or requested data.

NAME: MD UTILITIES TAG: RPC

ROUTINE: MDRPCU RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

VERSION: 1

<sup>1</sup>NAME: **MD TMDCIDC** TAG: RPC

RAME. MD TMDCIDC TAG: RPC
ROUTINE: MDRPCW RETURN VALUE TYPE: GLOBAL ARRAY
AVAILABILITY: RESTRICTED INACTIVE: ACTIVE
WORD WRAP ON: TRUE VERSION: 1

DESCRIPTION:

This RPC will do the following:

<sup>1</sup> Patch MD\*1.0\*6 May 2008 RPCs added.

```
Input Parameter: RESULTS - (Both Input/Output) Passed in as the array to
                               return the results.
                    OPTION - (Input) PROC - obtain a list of Procedures
                                             defined for a clinic.
                                      DIAG - obtain a list of diagnosis
                                             defined for a clinic.
                                      SCDISP - Obtain the patient's service
                                               connection and rated
disability.
                            - (Input) Patient internal entry number
                    MDSTUD - (Input) CP Study internal entry number
RETURN PARAMETER DESCRIPTION:
 > D RPC^MDRPCW(.RESULTS, "PROC", 162, 212)
 > ZW RESULTS
 RESULTS=^TMP("MDRPCW",539023945)
    @RESULTS@(0)=count of array element (0 if nothing found)
    @RESULTS@(1)=^group header
    @RESULTS@(2) = P1 := cpt or icd code / ien of other items
                   P2 := user defined text
                   P6 := user defined expanded text to send to PCE
                   P7 := second code or item defined for line item
                   P8 := third code or item defined for line item
                  P9 := associated clinical lexicon term
 > D ^%G
 Global ^TMP("MDRPCW",$J
         TMP("MDRPCW",$J
 ^TMP("MDRPCW", 539023945, 0) = 7
 ^TMP("MDRPCW",539023945,1) = ^PFT PROCEDURES
 ^TMP("MDRPCW",539023945,2) = G0125^Lung image (PET)
                                                                ****
 ^TMP("MDRPCW",539023945,3) = S9473^Pulmonary rehabilitation pro^^^^^
 ^TMP("MDRPCW",539023945,4) = S2060^Lobar lung transplantation ^^^^^^
 ^TMP("MDRPCW",539023945,5) = S2060^Lobar lung transplantation ^^^^^^
 ^TMP("MDRPCW",539023945,6) = A4480^Vabra aspirator
 ^TMP("MDRPCW",539023945,7) = 43450^DILAT ESOPH-SOUND/BOUGIE-1/M^^^^^
 Global ^
 > D RPC^MDRPCW(.RESULTS, "DIAG", 162, 212)
 > D ^%G
 Global ^TMP("MDRPCW",$J
         TMP("MDRPCW",$J
 ^TMP("MDRPCW", 539023945, 0) = 31
 ^TMP("MDRPCW",539023945,1) = ^PFT
 ^TMP("MDRPCW",539023945,2) = 397.1^RHEUM PULMON VALVE DIS^^^^^^2269587
 ^TMP("MDRPCW",539023945,3) = 417.1^PULMON ARTERY ANEURYSM^^^^^^269688
 ^TMP("MDRPCW",539023945,4) = 417.8^PULMON CIRCULAT DIS NEC^^^^^^2069690
 ^TMP("MDRPCW",539023945,5) = 417.9^PULMON CIRCULAT DIS NOS^^^^^^2269691
 ^TMP("MDRPCW",539023945,6) = 424.3^PULMONARY VALVE DISORDER^^^^^101164
 ^TMP("MDRPCW",539023945,7) = 516.1^IDIO PULM HEMOSIDEROSIS^^^^^^61083
 ^TMP("MDRPCW",539023945,8) = 746.01^CONG PULMON VALV ATRESIA^^^^^^265805
 ^TMP("MDRPCW",539023945,9) = 673.82^PULM EMBOL NEC-DEL W P/P^^^^^^271756
 ^TMP("MDRPCW",539023945,10) = 747.3^PULMONARY ARTERY ANOM^^^^^27406
 ^TMP("MDRPCW",539023945,11) = 770.3^NB PULMONARY HEMORRHAGE^^^^^^273240
 ^TMP("MDRPCW",539023945,12) = 794.2^ABN PULMONARY FUNC STUDY^^^^^^273442
```

```
^TMP("MDRPCW",539023945,13) = 901.41^INJURY PULMONARY
ARTERY^^^^901.42^^275136
 ^TMP("MDRPCW",539023945,14) = 162.3^MAL NEO UPPER LOBE
LUNG^^^^162.4^162.5^73534
 ^TMP("MDRPCW",539023945,15) = 235.7^UNC BEHAV NEO LUNG^^^^^2267754
 ^TMP("MDRPCW",539023945,16) = 875.0^OPEN WOUND OF CHEST^^^^^^^274991
 ^TMP("MDRPCW",539023945,17) = 162.9^MAL NEO BRONCH/LUNG NOS^^^^^^73521
 ^TMP("MDRPCW",539023945,18) = 786.6^CHEST SWELLING/MASS/LUMP^^^^^2273380
 ^TMP("MDRPCW",539023945,19) = 518.89^OTHER DISEASE OF LUNG, NEC^^^^^87486
 ^TMP("MDRPCW",539023945,20) = ^BRONCHOSCOPY
 ^TMP("MDRPCW",539023945,21) = 012.20^ISOL TRACHEAL TB-
UNSPEC^^^^012.21^^266107
 ^TMP("MDRPCW",539023945,22) = 012.22^ISOL TRACH TB-EXAM UNKN^^^^^^266109
 ^TMP("MDRPCW",539023945,23) = 012.23^ISOLAT TRACH TB-MICRO DX^^^^^^2266110
 ^TMP("MDRPCW",539023945,24) = 012.24^ISOL TRACHEAL TB-CULT DX^^^^^^2266111
 ^TMP("MDRPCW",539023945,25) = 748.61^CONGEN BRONCHIECTASIS^^^^^2265478
 ^TMP("MDRPCW",539023945,26) = 011.50^TB BRONCHIECTASIS-
UNSPEC^^^^011.51^^266056
 ^TMP("MDRPCW",539023945,27) = 784.1^THROAT PAIN^^^^^276881
 ^TMP("MDRPCW",539023945,28) = 784.8^HEMORRHAGE FROM THROAT^^^^^273371
 ^{TMP}("MDRPCW",539023945,29) = 034.0^{STREP} SORE THROAT^^^^^114610
 ^TMP("MDRPCW",539023945,30) = 466.11^AC. BRONCH/RESP SYNCYT V
(RSV)^^^466.19^
^304309
 ^TMP("MDRPCW",539023945,31) = 530.10^ESOPHAGITIS, UNSP.^^^^^^2295809
Global ^
> D RPC^MDRPCW(.RESULTS, "SCDISP", 17, 212)
    @RESULTS@(n)="Lines of text"
> D ^%G
 Global ^TMP("MDRPCW",$J
        TMP("MDRPCW",$J
 ^TMP("MDRPCW",539023945,1) = Service Connected: 50%
 ^TMP("MDRPCW",539023945,2) = Rated Disabilities: NONE STATED
 Global ^
NAME: MD TMDENCOUNTER
                                        TAG: GETENC
 ROUTINE: MDRPCW1
                                       RETURN VALUE TYPE: GLOBAL ARRAY
 AVAILABILITY: RESTRICTED
                                       WORD WRAP ON: TRUE
 VERSION: 1
 DESCRIPTION:
 This remote procedure will return the existing data in an encounter.
INPUT PARAMETER: STUDY
                                       PARAMETER TYPE: REFERENCE
                                        SEQUENCE NUMBER: 1
 REQUIRED: YES
 DESCRIPTION:
This is the CP Study internal entry number.
RETURN PARAMETER DESCRIPTION:
The result is returned in ^TMP("MDENC", $J) global.
 ^TMP("MDENC",\$J,1)="SC";0/1^0/1;"AO";0/1^0/1;"IR";0/1^0/1;"EC";0/1^0/1
 1; "MST"; 0/1^0/1; "HNC"; 0/1^0/1; "CV"; 0/1^0/1
     P1 = "SC" - Service Connected
     P2 = first "^" piece 1 if the condition can be answered
                       0 if the condition should be null not asked
           second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
     P3 = "A0" - Agent Orange Exposure
```

```
P4 = first "^" piece 1 if the condition can be answered
                       0 if the condition should be null not asked
           second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
      P5 = "IR" - Ionizing Radiation Exposure
      P6 = first "^" piece 1 if the condition can be answered
                       0 if the condition should be null not asked
           second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
      P7 = "EC" - Environmental Contaminants
      P8 = first "^" piece 1 if the condition can be answered
                       0 if the condition should be null not asked
           second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
      P9 = "HNC" - Head and/or Neck Cancer
     P10 = first "^" piece 1 if the condition can be answered
                       0 if the condition should be null not asked
           second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
     P11 = "MST" - Military Sexual Trauma
     P12 = first "^" piece 1 if the condition can be answered
                       0 if the condition should be null not asked
           second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
     P13 = "CV" - Combat Veteran
     P14 = first "^" piece 1 if the condition can be answered
                           0 if the condition should be null not asked
           second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
 ^TMP("MDENC",$J,n)="PRV"^CODE^^NARR^^Primary (1=Yes,0=No)
      P1 = "PRV" - Provider segment
      P2 = CODE - New Person internal Entry Number
      P3 = Null
      P4 = NARR - Provider name
      P5 = Null
      P6 = Primary - 1/0/null (1=Yes, 0/Null=No)
                   ="POV"^ICD IEN^ICD CODE^provider narrative category^
 provider narrative (Short Description) Primary (1=Yes, 0/Null=No)
      P1 = "POV" - ICD segment
      P2 = ICD internal entry number
      P3 = ICD Code
      P4 = Provider Narrative Category
      P5 = Short Description
      P6 = Primary - 1/0/null (1=Yes, 0/Null=No)
                  ="CPT"^CPT IEN^CPT CODE^provider narrative category^
provider narrative (Short Description) ^ Quantity
      P1 = "CPT" - CPT segment
      P2 = CPT internal entry number
      P3 = CPT Code
      P4 = Provider Narrative Category (CPT Category Grouping)
      P5 = Short Description
      P6 = null
     P7 = Quantity
NAME: MD TMDLEX
                                        TAG: LEX
                                        RETURN VALUE TYPE: GLOBAL ARRAY
  ROUTINE: MDRPCW1
 AVAILABILITY: RESTRICTED
                                        WORD WRAP ON: TRUE
 VERSION: 1
DESCRIPTION:
This RPC will return a list of CPT or ICD for a search typed in.
INPUT PARAMETER: MDSRCH
                                        PARAMETER TYPE: REFERENCE
```

```
REOUIRED: YES
                                        SEQUENCE NUMBER: 1
DESCRIPTION:
This is the text typed in for the look-up.
INPUT PARAMETER: MDAPP
                                        PARAMETER TYPE: REFERENCE
 REQUIRED: YES
                                        SEQUENCE NUMBER: 2
DESCRIPTION:
This is the application indicator. It is either "CPT" or "ICD".
RETURN PARAMETER DESCRIPTION:
 ^TMP("MDLEX",$J,#)=P1 - CPT/ICD Code
                    P2 - Internal Entry Number
                    P3 - Lexicon text
>D LEX^MDRPCW1(.RESULTS, "BORE", "CPT")
 >ZW RESULTS
RESULTS="^TMP("MDLEX",539152953)"
 >D ^%G
Global ^TMP("MDLEX",$J -- NOTE: translation in effect
 ^TMP("MDLEX",539152953,1)=86618^302213^Borella Burgdorferi (Lyme Disease)
 Antibody (CP T-4 86618)
NAME: MD TMDNOTE
                                        TAG: RPC
 ROUTINE: MDRPCNT
                                        RETURN VALUE TYPE: GLOBAL ARRAY
 AVAILABILITY: RESTRICTED
                                        INACTIVE: ACTIVE
 WORD WRAP ON: TRUE
                                        VERSION: 1
DESCRIPTION:
 This remote procedure call does the following:
 Accepts the following Inputs:
   RESULTS - Both (Input and Output) - Passed in as the array to return
             results in.
    OPTION - NEWDOC = Add additional new document to the Hemodialysis
                      study.
             NOTELIST = Returns a list of documents associated with the
                       study. The pieces returned are: Note IEN, Note
                       title, Date/Time Creation, Author, and Hospital
                       Location.
             VIEWTIU = Return the text lines of a document from NOTELST.
    MDSID - Study internal Entry Number.
    MDTIU - TIU Document Internal Entry Number.
    MDDTE - Date/Time of Document Creation.
    MDAUTH - Author of document.
    MDESIG - Encrypted Electronic Signature.
    MDTXT - Text of the new document in an array.
Return Results are the following:
```

```
OPTION = NEWDOC
 > D RPC^MDRPCNT(.RESULTS,"NEWDOC",904,"",3050524.0915,679,74RHLld;flk,MDTXT)
 > D ^%G
 Global ^TMP("MDKUTL",$J
         TMP("MDKUTL",$J
 ^TMP("MDKUTL",538992716,0) = Note internal entry number or -1^Error Message
OPTION = NOTELIST
> D RPC^MDRPCNT(.RESULTS, "NOTELST", 476)
 > D ^%G
Global ^TMP("MDKUTL",$J
         TMP("MDKUTL",$J
 ^TMP("MDKUTL",538992716,1) = 968^PROCEDURE NOTE^OCT 10, 2001@17:08:36
 ^MDPROVIDER,ONE ^PROSTHETICS
 ^TMP("MDKUTL",538992716,2) = 969^PROCEDURE NOTE^OCT 10,
2001@17:10:44^^PROSTHET
Ι
CS
 ^TMP("MDKUTL",538992716,3) = 970^PROCEDURE NOTE^OCT 10,
2001@17:11:50^^PROSTHET
CS
^TMP("MDKUTL",538992716,4) = 971^PROCEDURE NOTE^OCT 10,
2001@17:15:45^^PROSTHET
CS
 ^TMP("MDKUTL",538992716,5) = 972^PROCEDURE NOTE^OCT 10,
2001@17:16:34^^PROSTHET
Ι
CS
^TMP("MDKUTL",538992716,6) = 974^PROCEDURE NOTE^OCT 11,
2001@10:56:03^^PROSTHET
Ι
CS
^TMP("MDKUTL",538992716,7) = 975^PROCEDURE NOTE^OCT 11,
2001@12:50:29^^PROSTHET
CS
Global ^
OPTION = VIEWTIU
> D RPC^MDRPCNT(.RESULTS, "VIEWTIU", 476, 968)
 > D ^%G
 Global ^TMP("TIUVIEW",$J
        TMP("TIUVIEW",$J
 ^TMP("TIUVIEW",538992716,1) = TITLE: PROCEDURE NOTE
^TMP("TIUVIEW",538992716,2) = DATE OF NOTE: OCT 10, 2001@17:08:36 ENTRY
DATE:
0
```

```
CT 10, 2001@17:08:36
 ^TMP("TIUVIEW",538992716,3) = AUTHOR: MDPROVIDER,ONE EXP COSIGNER:
 ^TMP("TIUVIEW",538992716,4) = URGENCY:
STATUS:
C
 OMPLETED
 ^TMP("TIUVIEW",538992716,5) =
 ^TMP("TIUVIEW",538992716,6) = PROCEDURE SUMMARY CODE: Abnormal
 ^TMP("TIUVIEW",538992716,7) = DATE/TIME PERFORMED: OCT 15, 2001
 ^TMP("TIUVIEW",538992716,8) =
 ^TMP("TIUVIEW",538992716,9) =
                                   *** PROCEDURE NOTE Has ADDENDA ***
 ^TMP("TIUVIEW",538992716,10) =
 ^TMP("TIUVIEW",538992716,11) = Complete consult 1104. 6 attached images.
 ^TMP("TIUVIEW",538992716,12) =
 ^TMP("TIUVIEW",538992716,13) = /es/ MDPROVIDER,ONE
 ^TMP("TIUVIEW",538992716,14) =
 ^TMP("TIUVIEW",538992716,15) = Signed: 10/15/2001 13:02
 ^TMP("TIUVIEW",538992716,16) =
 ^TMP("TIUVIEW",538992716,17) = 10/15/2001 ADDENDUM
STATUS:
 COMPLETED
 ^TMP("TIUVIEW",538992716,18) = aDDENDUM LA LA LA
 ^TMP("TIUVIEW",538992716,19) = LA LA LA
 ^TMP("TIUVIEW",538992716,20) =
 ^TMP("TIUVIEW",538992716,21) = /es/ MDPROVIDER,ONE
 ^TMP("TIUVIEW",538992716,22) =
 ^TMP("TIUVIEW",538992716,23) = Signed: 10/15/2001 13:04
NAME: MD TMDSUBMITU
                                           TAG: RPC
 ROUTINE: MDRPCOWU
                                           RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED
                                           WORD WRAP ON: TRUE
  VERSION: 1
                          TAG: RPC

RETURN VALUE TYPE: GLOBAL ARRAY

WORD WRAP ON: TRUE
NAME: MD TMDWIDGET
  ROUTINE: MDRPCOW
  AVAILABILITY: RESTRICTED
  VERSION: 1
NAME: MDK GET VISTA DATA

ROUTINE: MDKRPC1

AVAILABILITY: RESTRICTED

INPUT PARAMETER: OPTION

MAXIMUM DATA LENGTH: 8

TAG: RPC

RETURN VALUE TYPE: ARRAY

INACTIVE: ACTIVE

PARAMETER TYPE: LITERAL

REQUIRED: YES
  SEOUENCE NUMBER: 1
 DESCRIPTION:
This is the routine tag that will be called to retrieve the data.
 NPUT PARAMETER: DATA PARAMETER TYPE: LITERAL MAXIMUM DATA LENGTH: 50 REQUIRED: YES
INPUT PARAMETER: DATA
  SEOUENCE NUMBER: 2
 DESCRIPTION:
 This is whatever data is needed by the subroutine to process the request
for data. In many cases it will be a single value (e.g., patient id -
```

DFN).

RETURN PARAMETER DESCRIPTION: Returns an array.

RESULT(0)=number or

RESULT(0)=-1^error message

RESULT(1)=data

RESULT(n)=data

If data is not found, RESULT(0) will be contain a "-1" in the first piece and an error message in the second piece.

If data is found, RESULT(0) will contain a number that indicates how many entries are returned.

RESULT(1) through RESULT(n) will contain the data that is found.

NAME: MDK GET/SET RENAL DATA TAG: RPC

ROUTINE: MDKRPC2 RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

NAME: MDK UTILITY TAG: RPC

ROUTINE: MDKUTLR RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED WORD WRAP ON: TRUE

### **Parameter Definitions**

NAME: MD ALLOW EXTERNAL ATTACHMENTS

DISPLAY TEXT: Allow non-instrument attachments

MULTIPLE VALUED: No VALUE TERM: Allowed

VALUE DATA TYPE: ves/no

DESCRIPTION:

Set this value to Yes to allow users of CPUser.exe to attach documents to

the transaction that are not created by an instrument.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>1</sup>NAME: **MD APPOINT END DATE** 

DISPLAY TEXT: End Date for Encounter Appointments

VALUE DATA TYPE: numeric VALUE TERM: Days VALUE DOMAIN: 0:365

VALUE HELP: Enter a number from 0 to 365.

DESCRIPTION:

Enter a number from 0 to 365 for the number of days that will be used to add to today as the end date range of the Encounter

Appointments. If no value is entered, the default value used

will be 0.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MD APPOINT START DATE

DISPLAY TEXT: Start Date for Encounter Appointments MULTIPLE VALUED: No VALUE TERM: Davs VALUE DATA TYPE: numeric VALUE DOMAIN: 0:365

VALUE HELP: Enter a number from 0 to 365.

DESCRIPTION:

Enter a number from 0 to 365 for the number of days that will be used to subtract from today as the start date range of the Encounter

Appointments. If no value is entered, the default value used

will be 200.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MD COMPL PROC DISPLAY DAYS

DISPLAY TEXT: Completed Proc Display Days

MULTIPLE VALUED: No VALUE TERM: Days VALUE DATA TYPE: numeric VALUE DOMAIN: 1:365

VALUE HELP: Enter the number of days from 1 to 365

DESCRIPTION:

The number of days the completed procedure requests will be

displayed in the CP Check-in screen.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>2</sup>NAME: MD CHECK-IN PROCEDURE LIST DISPLAY TEXT: Check-in Procedure List

MULTIPLE VALUED: Yes INSTANCE TERM: Procedure

VALUE TERM: Schedule Appointment? VALUE DATA TYPE: set of codes

VALUE DOMAIN: 0:None;1:Outpatient;2:Inpatient;3:Both

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Parameter Definitions added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*14 March 2008 Parameter Definitions added.

```
VALUE HELP: Enter 0 for None, 1 for Outpatient, 2 for Inpatient, or 3 for
both.
  INSTANCE DATA TYPE: pointer
  INSTANCE DOMAIN: 702.01
 INSTANCE HELP: Enter procedures that needs the study to be auto checked-in.
 INSTANCE SCREEN CODE: I +$P(^MDS(702.01,+Y,0),"^",9)>0
This parameter contains a list of procedures that will be used
 to auto check-in the CP studies during the procedures request in CPRS
 and whether appointments are scheduled for the procedure.
PRECEDENCE: 1
                                       ENTITY FILE: SYSTEM
NAME: MD CLINIC QUICK LIST
                                     DISPLAY TEXT: Clinic Quick List For CP
 MULTIPLE VALUED: Yes
                                       INSTANCE TERM: Clinic
                                      VALUE DATA TYPE: pointer
 VALUE TERM: Procedure
 VALUE DOMAIN: 702.01
 VALUE HELP: Select a procedure for the clinic.
 INSTANCE DATA TYPE: pointer
                                      INSTANCE DOMAIN: 44
  INSTANCE HELP: Enter clinics that need CP studies to be checked-in.
 DESCRIPTION:
List of clinics used as a source to get a list of patients
that need to have CP studies checked-in. This only applies
to studies with procedures that have multiple results such
as Hemodialysis, Respiratory Therapy, and sleep studies.
PRECEDENCE: 1
                                       ENTITY FILE: SYSTEM
NAME: MD CLINICS WITH MULT PROC
 DISPLAY TEXT: Clinics With Multiple Procedures
 MULTIPLE VALUED: Yes
                                        INSTANCE TERM: Procedure
  VALUE TERM: Clinic
                                       VALUE DATA TYPE: pointer
  VALUE DOMAIN: 44
  VALUE HELP: Enter a clinic for the procedure.
                                  INSTANCE DOMAIN: 702.01
  INSTANCE DATA TYPE: pointer
  INSTANCE HELP: Enter a procedure.
  INSTANCE SCREEN CODE: I +$P(^MDS(702.01,+Y,0),"^",9)>0
DESCRIPTION:
 If you have a clinic for multiple procedures, populate this
parameter with the procedure and associate it to a clinic.
PRECEDENCE: 1
                                       ENTITY FILE: SYSTEM
<sup>1</sup>NAME: MD CLINIC ASSOCIATION
MULTIPLE VALUED: Yes
                                       DISPLAY TEXT: MD Clinic Association
                                      INSTANCE TERM: Sequence
  VALUE TERM: Clinic; Procedure Association Value
 PROHIBIT EDITING: No
                                      VALUE DATA TYPE: free text
 INSTANCE DATA TYPE: numeric
                                       INSTANCE DOMAIN: 1:9999
 INSTANCE HELP: Enter the sequence to associate a clinic and procedure.
DESCRIPTION:
This parameter is used to identify the clinic and procedure
association. Each item should be entered with the following format
   Clinic internal entry number_";"_Procedure internal entry number
PRECEDENCE: 1
                                       ENTITY FILE: SYSTEM
```

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*11 June 2009 Parameter Definition added

NAME: MD CRC BYPASS
MULTIPLE VALUED: No DISPLAY TEXT: Bypass CRC Checking VALUE TERM: Bypass CRC Checking

VALUE DATA TYPE: yes/no

DESCRIPTION:

Set this value to 'Yes' to prevent the client application from verifying

its CRC Value at startup.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

#### NAME: MD CRC VALUES

DISPLAY TEXT: Clinical Procedures CRC Values

MULTIPLE VALUED: Yes

INSTANCE TERM: Executable or Library Name

VALUE TERM: CRC Value PROHIBIT EDITING: No VALUE DATA TYPE: free text VALUE DOMAIN: 1:15
INSTANCE DATA TYPE: free text INSTANCE DOMAIN: 1:30

DESCRIPTION:

This parameter is used to store the CRC values for the most recent versions of executable and libraries. Use the Tools menu on the CPManager

program to calculate the needed CRC Values of the current versions.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

#### NAME: MD DAYS FOR INSTRUMENT DATA

DISPLAY TEXT: Temporary instrument data life (Days) VALUE TERM: Days VALUE DATA TYPE: MULTIPLE VALUED: No

VALUE DATA TYPE: numeric PROHIBIT EDITING: No

VALUE DOMAIN: 0:365

DESCRIPTION:

The number of days to keep data from the auto-instruments after the data has been associated with a Clinical Procedures report. PRECEDENCE: 1 ENTITY FILE: SYSTEM

### <sup>1</sup>NAME: MD DAYS TO RETAIN COM STUDY

DISPLAY TEXT: Days to Retain Completed Study

MULTIPLE VALUED: No VALUE TERM: Days

PROHIBIT EDITING: No VALUE DATA TYPE: numeric

VALUE DOMAIN: 1:365

VALUE HELP: Enter the number of days from 1 to 365

DESCRIPTION:

The number of days after check-in date/time to display the study that has been complete in the CPUser application. Studies that have procedures with multiple or cumulative results are NOT included. Cumulative and multiple results studies will have a default value of 365.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

### <sup>2</sup>NAME: MD DAYS TO RET COM MULT

DISPLAY TEXT: Days to Retain Completed Multiple Study VALUE DATA TYPE: numeric VALUE TERM: Days VALUE DOMAIN: 1:365

VALUE HELP: Enter the number of days from 1 to 365

DESCRIPTION:

The number of days after check-in date/time to display the study

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<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Parameter Definition added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*20 November 2010 Parameter Definitions Added.

that has been completed in the CPUser application. This only pertains to studies that have procedures with multiple studies. PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MD DEVICE SURVEY TRANSMISSION DISPLAY TEXT: Device Survey

Transmission

MULTIPLE VALUED: No VALUE TERM: Yes/No PROHIBIT EDITING: No VALUE DATA TYPE: yes/no

VALUE HELP: Enter 'Y' for 'YES' or 'N' for 'NO'.

DESCRIPTION:

Used to determine if the site wants to transmit the device survey to Hines. Enter 'Y' for 'YES' to send the survey or 'N' for 'NO' to

suppress the transmission.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

DISPLAY TEXT: Imaging File Types

NAME: MD FILE EXTENSIONS

MULTIPLE VALUED: Yes

VALUE TERM: File type

VALUE DATA TYPE: free text

DISPLAY TEXT: Imaging File Instance Term: Extension PROHIBIT EDITING: No VALUE DATA TYPE: free text

VALUE DOMAIN: 1:80

VALUE HELP: Enter a description of this file type

INSTANCE HELP: Enter the extension of the file type with a '.'

INSTANCE VALIDATION CODE: K:X'?1".".9ULN X

DESCRIPTION:

This parameter stores a list of valid file types and the associated

extensions of these files.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

DISPLAY TEXT: CP Gateway Parameters NAME: MD GATEWAY

AME: MD GATEWAY

MULTIPLE VALUED: Yes

VALUE TERM: Parameter Value

VALUE DATA TYPE: free text

INSTANCE DATA TYPE: free text INSTANCE DOMAIN: 1:255

PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>1</sup>NAME: MD GET HIGH VOLUME

MULTIPLE VALUED: Yes

VALUE TERM: Get String

INSTANCE DATA TYPE: pointer

DISPLAY TEXT: Get High Volume

INSTANCE TERM: Procedure

VALUE DATA TYPE: free text

INSTANCE DOMAIN: 702.01

INSTANCE HELP: Enter a high volume procedure.

INSTANCE SCREEN CODE: I

 $+$P(^MDS(702.01,+Y,0),"^*,6)'=2&(+$P(^MDS(702.01,+Y,0))$ 

 $, "^", 11) = 2) & ($P(^MDS(702.01, +Y, 0), "^", 9) > 0)$ 

DESCRIPTION:

This parameter will contain a free text string that contains two pieces of data delimited by a semicolon ';'. The two pieces of data are: 1) 1/0 (Yes/No) to indicate whether or not the text of the result should be added to the note, 2) 1/0 (Yes/No) to enter the text of the result as the significant finding of the Consult. (If you enter a 0, the note will be auto closed with the text inside.)

Example string: 1;0

PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*21 June 2010 Parameter Definition added.

NAME: MD HFS SCRATCH

DISPLAY TEXT: VistA Scratch HFS Directory

MULTIPLE VALUED: No VALUE TERM: Directory name VALUE DATA TYPE: free text VALUE DOMAIN: 1:250

VALUE HELP: Enter in an OS level directory

DESCRIPTION:

Contains the directory specification for the Kernel OPEN^%ZISH call. This directory should be accessible for read/write operations by all CP users.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MD IMAGING XFER
MULTIPLE VALUED: No
VALUE DATA TYPE: free text DISPLAY TEXT: Imaging Network Share VALUE TERM: Imaging Network Share

VALUE DOMAIN: 1:250

DESCRIPTION:

This parameter contains the name of a network server, share, and path (UNC) to a location where Clinical Procedures can put files for pick-up by the Imaging background processor for archiving.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

1 NAME: MDK APPLICATION INSTALL DISPLAY TEXT: MDK Application

Install

MULTIPLE VALUED: Yes

INSTANCE TERM: Installation Distribution Info

VALUE TERM: Distribution Info Value PROHIBIT EDITING: No 

DESCRIPTION:

This parameter is used to store the Hemodialysis application distribution information. The information includes the following:

- 1) Date/Time when application first launched.
- 2) User Name
- 3) System Option Loaded (Y/N)
- 4) Workstation of where the application was launched.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MDK GUI VERSION

DISPLAY TEXT: Hemodialysis Version Compatibility

MULTIPLE VALUED: Yes INSTANCE TERM: Application: Version

VALUE TERM: Compatible with current server version

PROHIBIT EDITING: No VALUE DATA TYPE: yes/no INSTANCE DATA TYPE: free text INSTANCE DOMAIN: 1:40

DESCRIPTION:

This parameter is used to store the application: versions that are compatible with the current server version of Hemodialysis. Instance format of APPLICATION: VERSION (example: HEMODIALYSIS.EXE: 0.0.0.0). PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>2</sup>NAME: **MD MEDICINE CONVERTED** DISPLAY TEXT: Medicine Package

Converted

<sup>1</sup> Patch MD\*1.0\*6 May 2008 Parameter Definition added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*5 August 2006 Parameter Definition added.

MULTIPLE VALUED: No VALUE TERM: Yes/No PROHIBIT EDITING: No VALUE DATA TYPE: yes/no

DESCRIPTION:

Used to determine if the Medicine Package has been converted. PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>1</sup>NAME: MD NOT ADMN CLOSE MUSE NOTE DISPLAY TEXT: NOT ADMN Close Muse

Note

MULTIPLE VALUED: No VALUE TERM: Yes/No PROHIBIT EDITING: No VALUE DATA TYPE: ves/no

DESCRIPTION:

This parameter is used to indicate the note should not be administratively closed with the proxy user CLINICAL, DEVICE PROXY SERVICE but the interpreter of the procedure for the MUSE device.

The default is "No".

PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MD OFFLINE MESSAGE DISPLAY TEXT: Offline message MULTIPLE VALUED: No VALUE TERM: Offline Message

VALUE DATA TYPE: word processing

DESCRIPTION:

This parameter contains a message to display to the users when the Clinical Procedures application is offline.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>2</sup>NAME: **MD OLYMPUS 7** DISPLAY TEXT: MD OLYMPUS 7

MULTIPLE VALUED: No VALUE TERM: Yes/No PROHIBIT EDITING: No VALUE DATA TYPE: yes/no VALUE HELP: Enter Yes/No whether you have Olympus version 7.3.7.

DESCRIPTION:

This parameter definition indicates whether the Olympus device is version 7.3.7. The value is Yes/No. The default value is "No".

PRECEDENCE: 1 ENTITY FILE: SYSTEM

#### NAME: MD ONLINE

DISPLAY TEXT: Clinical Procedure Online/Offline

MULTIPLE VALUED: No

VALUE TERM: Is Clinical Procedures Online

PROHIBIT EDITING: No VALUE DATA TYPE: yes/no

VALUE HELP: Enter 'Yes' to allow access to CP

DESCRIPTION:

This parameter controls access to the Clinical Procedures package.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>3</sup>NAME: **MD USE APPOINTMENT** DISPLAY TEXT: Use Appointment

Location

MULTIPLE VALUED: No VALUE TERM: Use Appointment location

VALUE DATA TYPE: yes/no

DESCRIPTION:

Set this value to Yes to allow CPUser to use the location of the appointment selected during CP study check-in for the workload.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*21 June 2010 Parameter Definition added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*11 June 2009 Parameter Definition added.

<sup>&</sup>lt;sup>3</sup> Patch MD\*1.0\*11 June 2009 Parameter Definition added.

Otherwise, the hospital location of the CP Definition will be used.

If no value is entered, the default value is No.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>1</sup>NAME: MD USE APPT WITH PROCEDURE

DISPLAY TEXT: Use Appointment With Procedure

MULTIPLE VALUED: No

VALUE TERM: Use appointment with procedure

PROHIBIT EDITING: No VALUE DATA TYPE: yes/no

DESCRIPTION:

Enter "Y" or "N" for Yes/No on whether your site selects the appointment

scheduled for outpatients during the procedure request in CPRS. PRECEDENCE: 1 ENTITY FILE: SYSTEM

<sup>2</sup>NAME: **MD USE NOTE**VALUE TERM: Yes/No

DISPLAY TEXT: Use Note
VALUE DATA TYPE: yes/no

DESCRIPTION:

This parameter indicates that Clinical Procedures will use the note for the text of the result instead of the Significant Finding field in Consult.

PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MD USER DEFAULTS

MULTIPLE VALUED: Yes

DISPLAY TEXT: CP User Defaults
INSTANCE TERM: Parameter setting

MULTIPLE VALUED: Yes INSTANCE TERM: Paramet VALUE TERM: Parameter value PROHIBIT EDITING: No VALUE DATA TYPE: free text VALUE DOMAIN: 1:250 INSTANCE DATA TYPE: free text INSTANCE DOMAIN: 1:250

DESCRIPTION:

This parameter is used to store a users default parameter settings. Each

setting is defined on the client.

PRECEDENCE: 1 ENTITY FILE: USER

NAME: MD VERSION CHK

MULTIPLE VALUED: Yes

DISPLAY TEXT: Version Compatibility
INSTANCE TERM: Application: Version

VALUE TERM: Compatible with current server version

PROHIBIT EDITING: No VALUE DATA TYPE: yes/no INSTANCE DATA TYPE: free text INSTANCE DOMAIN: 1:30

DESCRIPTION:

This parameter is used to store the application: versions that are compatible with the current server version of Clinical Procedures. Instance format

of APPLICATION: VERSION (example: CPMANAGER.EXE:0.0.0). PRECEDENCE: 1 ENTITY FILE: SYSTEM

NAME: MD WEBLINK

DISPLAY TEXT: Clinical Procedures Home Page

MULTIPLE VALUED: No VALUE TERM: Web Address VALUE DATA TYPE: free text VALUE DOMAIN: 1:250

**DESCRIPTION:** 

This parameter contains the web address for the Clinical Procedures home page. This can be modified to a local address in the event that the pages  $\frac{1}{2}$ 

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*14 March 2008 Parameter Definition added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*21 June 2010 Parameter Definition Added.

are downloaded to be displayed from a local server location. PRECEDENCE: 1 ENTITY FILE: SYSTEM

### **Protocols**

NAME: MCAR Device Client

TYPE: subscriber

ITEM TEXT: Instrument Device Client

CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: MEDICINE

DESCRIPTION: Subscriber protocol for sending data to Vista from clinical

instruments.

TIMESTAMP: 59276,54156 RECEIVING APPLICATION: MCAR-INST

TIMESTAMP: 59276,54156

TRANSACTION MESSAGE TYPE: ORU

PROCESSING ID: P

VERSION ID: 2.3

PROCESSING ROUTINE: D ^MDHL7A

RECEIVING FACILITY REQUIRED?: NO

RECEIVING APPLICATION: MCAR-INST

EVENT TYPE: R01

LOGICAL LINK: MCAR INST

RESPONSE MESSAGE TYPE: ACK

SENDING FACILITY REQUIRED?: NO

NAME: MCAR Device Server ITEM TEXT: Instrument HL7 Event Driver TYPE: event driver CREATOR: ACKERMAN, NIEN-CHIN

TYPE: event driver

PACKAGE: MEDICINE

DESCRIPTION: This protocol is used by the HL7 package to send results to

Vista from various clinical instrumentation.

TIMESTAMP: 59276,54156 SENDING APPLICATION: INST-MCAR
TRANSACTION MESSAGE TYPE: ORU EVENT TYPE: R01
PROCESSING ID: P VERSION ID: 2.3
SENDING FACILITY REQUIRED?: NO
IBSCRIBERS: MCAR Device Client

SUBSCRIBERS: MCAR Device Client

NAME: MCAR ORM CLIENT TYPE: subscriber

CREATOR: ACKERMAN, NIEN-CHIN
EVENT TYPE: 002
RESPONSE MESSAGE TYPE: ORR
SENDING FACILITY REQUIRED?: NO
RECEIVING FACILITY REQUIRED?: NO
ROUTING LOGIC: Q

NAME: MCAR ORM SERVER

ITEM TEXT: Clinical Procedures ORM Protocol Server

TYPE: event driver CREATOR: ACKERMAN, NIEN-CHIN
TIMESTAMP: 59276,54156 SENDING APPLICATION: MCAR-INST
TRANSACTION MESSAGE TYPE: ORM EVENT TYPE: 001

VERSION ID: 2.3

SUBSCRIBERS: MCAR ORM CLIENT

<sup>1</sup>NAME: **MD RECEIVE GMRC** 

ITEM TEXT: Clinical Procedures receives messages from Consult CREATOR: ACKERMAN, NIEN-CHIN TYPE: action

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This protocol receives messages from Consult. (IA 3140)

ENTRY ACTION: D EN^MDWORC(.XQORMSG) TIMESTAMP: 60934,38793

NAME: MD RECEIVE OR

ITEM TEXT: Clinical Procedures receives order msgs from CPRS CREATOR: ACKERMAN, NIEN-CHIN TYPE: action

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This protocol receives order messages from CPRS. (IA 3135)

ENTRY ACTION: D EN^MDWOR(.XQORMSG) TIMESTAMP: 60934,38793

<sup>1</sup> Patch MD\*1.0\*14 March 2008 Protocols added to support the auto study check-in.

# **HL7 Application Parameters**

NAME: INST-MCAR ACTIVE/INACTIVE: ACTIVE

COUNTRY CODE: USA HL7 ENCODING CHARACTERS: ^~\& HL7 FIELD SEPARATOR: |

NAME: MCAR-INST ACTIVE/INACTIVE: ACTIVE

FACILITY NAME: VISTA MAIL GROUP: POSTMASTER

COUNTRY CODE: USA HL7 ENCODING CHARACTERS: ^~\& HL7 FIELD SEPARATOR: |

## **HL Logical Links**

NODE: MCAR INST

DEVICE TYPE: Single-threaded Server STATE: Reading AUTOSTART: Enabled

TASK NUMBER: 526320 QUEUE SIZE: 100

NODE: MCAR OUT

DEVICE TYPE: Non-Persistent Client STATE: Openfail

AUTOSTART: Enabled TASK NUMBER: 529066 OUEUE SIZE: 100 READ TIMEOUT: 60

LLP TYPE: TCP

TIME STARTED: MAR 04, 2004@06:46:17

SHUTDOWN LLP ?: NO

RE-TRANSMISSION ATTEMPTS: 3

ACK TIMEOUT: 60

TCP/IP PORT: 9026

PERSISTENT: NO

IN QUEUE BACK POINTER: 331

OUT QUEUE BACK POINTER: 220

READ TIMEOUT: 60

EXCEED RE-TRANSMIT ACTION: ignore

TCP/IP SERVICE TYPE: SINGLE LISTENER

STARTUP NODE: DEV:ISC4A1

IN QUEUE FRONT POINTER: 331

OUT QUEUE FRONT POINTER: 210

LLP TYPE: TCP

TIME STARTED: MAR 04, 2004@06:45:47

SHUTDOWN LLP ?: NO

RE-TRANSMISSION ATTEMPTS: 3

ACK TIMEOUT: 60

READ TIMEOUT: 60

EXCEED RE-TRANSMIT ACTION: ignore

TCP/IP ADDRESS: 10.3.17.157

TCP/IP PORT: 9028

TCP/IP SERVICE TYPE: CLIENT (SENDER)

TCP/IP PORT: 9028

TCP/IP SERVICE TYPE: CLIENT PERSISTENT: NO

STARTUP NODE: DEV:ISC4A1

IN QUEUE BACK POINTER: 202

OUT QUEUE BACK POINTER: 206

OUT QUEUE FRONT POINTER: 202

## **Menu Options by Name**

NAME: **MD GUI USER**MENU TEXT: MD GUI USER

TYPE: Broker (Client/Server) CREATOR: ACKERMAN, NIEN-CHIN

TIMESTAMP OF PRIMARY MENU: 59331,44145

RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION

RPC: MD TMDUSER
RPC: MD UTILITIES

UPPERCASE MENU TEXT: MD GUI USER

NAME: MD GUI MANAGER

TYPE: Broker (Client/Server)

MENU TEXT: MD GUI MANAGER

CREATOR: ACKERMAN, NIEN-CHIN

TIMESTAMP OF PRIMARY MENU: 59385,45622

RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION

RPC: MD TMDUSER
RPC: MD UTILITIES
RPC: MD GATEWAY

UPPERCASE MENU TEXT: MD GUI MANAGER

<sup>1</sup>NAME: MD AUTO CHECK-IN SETUP MENU TEXT: Auto Study Check-In Setup

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option is used to populate the XPAR parameters MD USE APPT WITH PROCEDURE, MD CHECK-IN PROCEDURE LIST, MD CLINIC QUICK LIST, and MD CLINICS WITH MULT PROC. The four XPAR parameters are used for the auto study check-in. Users can use the option to indicate whether their site use and schedule appointments. They can populate a list of procedures and associated clinics that need a CP study checked-in.

ROUTINE: EN1^MDWSETUP

UPPERCASE MENU TEXT: AUTO STUDY CHECK-IN SETUP

NAME: MD SCHEDULED STUDIES

TYPE: run routine

MENU TEXT: Scheduled Studies

CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option is tasked to run daily. It will process the HL7 messages that need to be sent to the device on a daily basis for CP studies.

ROUTINE: EN1^MDWORSR SCHEDULING RECOMMENDED: YES

UPPERCASE MENU TEXT: SCHEDULED STUDIES

NAME: MD STUDY CHECK-IN

TYPE: run routine

MENU TEXT: Study Check-in

CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option is tasked to run daily. It checks-in CP studies

<sup>1</sup> Patch MD\*1.0\*14 March 2008 Options added to support the auto study check-in.

1

for procedures that require multiple encounters such as Hemodialysis, Respiratory Therapy, and Sleep Studies.

ROUTINE: CLINICPT^MDWORSR SCHEDULING RECOMMENDED: YES

UPPERCASE MENU TEXT: STUDY CHECK-IN

PACKAGE: CLINICAL PROCEDURES
DESCRIPTION: This Package: CLINICAL PROCEDURES <sup>1</sup> NAME: MD HIGH VOLUME PROCEDURE SETUP MENU TEXT: High Volume Procedure Setup

DESCRIPTION: This option will populate the XPAR Parameters MD GET HIGH  $\hbox{\tt VOLUME and MD NOT ADMN CLOSE MUSE NOTE.} \quad \hbox{\tt It will let the user populate a list}$ of Clinical Procedures procedures set it up for high volume procedure process.

ROUTINE: EN1^MDARSET

UPPERCASE MENU TEXT: HIGH VOLUME PROCEDURE SETUP

### NAME: MD PROC W/INCOMPLETE WORKLOAD

MENU TEXT: Print list of Procedure with incomplete workload

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option prints a list of procedures that has incomplete

workload for the visit. ROUTINE: E1^MDSTUDW

UPPERCASE MENU TEXT: PRINT LIST OF PROCEDURE WITH I

NAME: MD PROCESS RESULTS MENU TEXT: MD Process Results TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES E ACTION PRESENT: YES

DESCRIPTION: This task is ran daily for every hour to process results

and update Consults package.

ENTRY ACTION: N ZTSAVE S ZTSAVE("DUZ")=DUZ,ZTSAVE("DUZ(")=""

ROUTINE: PROCESS^MDHL7XXX UPPERCASE MENU TEXT: MD PROCESS

RESULTS

NAME: MD HEMODIALYSIS USER MENU TEXT: HEMODIALYSIS USE TYPE: Broker (Client/Server) CREATOR: ACKERMAN, NIEN-CHIN <sup>2</sup>NAME: **MD HEMODIALYSIS USER** MENU TEXT: HEMODIALYSIS USER

TIMESTAMP OF PRIMARY MENU: 60387,39853

RPC: MDK GET VISTA DATA

RPC: MDK GET/SET RENAL DATA

RPC: MDK UTILITY

RPC: VAFCTFU CONVERT DFN TO ICN

RPC: VAFCTFU CONVERT ICN TO DFN

RPC: MD TMDWIDGET

RPC: MD TMDNOTE

RPC: MD TMDCIDC

RPC: MD TMDLEX

RPC: MD TMDENCOUNTER

RPC: GMV MANAGER

RPC: MD GATEWAY

RPC: MD TMDSUBMITU

RPC: ORWPT PTINO

RPC: GMV PTSELECT

RPC: DG SENSITIVE RECORD ACCESS

RPC: DG SENSITIVE RECORD BULLETIN

RPC: MD TMDRECORDID

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*21 June 2010 Options added to support high volume procedures enhancement.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*6 May 2008 Hemodialysis User menu option added.

UPPERCASE MENU TEXT: HEMODIALYSIS USER

NAME: MD STUDIES LIST

MENU TEXT: Clinical Procedures Studies List

CREATOR: ACKERMAN, NIEN-CHIN TYPE: run routine

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will generate a list of Clinical Procedures

studies.

ROUTINE: EN2^MDSTUDL

UPPERCASE MENU TEXT: CLINICAL PROCEDURES STUDIES LI

<sup>1</sup>NAME: **MDCVT MANAGER** 

MENU TEXT: Medicine to CP Conversion Manager

TYPE: menu CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This is the Medicine to CP Manager menu option. This menu option consists of options to assist the site in converting the Medicine

reports to Clinical Procedures text reports.

ITEM: MDCVT SETUP SYNONYM: 1

DISPLAY ORDER: 1

ITEM: MDCVT RUN SYNONYM: 3

DISPLAY ORDER: 3

ITEM: MDCVT SUMMARY SYNONYM: 4

DISPLAY ORDER: 4

ITEM: MDCVT DISK SPACE SYNONYM: 5

DISPLAY ORDER: 5

ITEM: MDCVT LIST OF TIU TITLES SYNONYM: 6

DISPLAY ORDER: 6

ITEM: MDCVT TOTALS SYNONYM: 7

DISPLAY ORDER: 7

ITEM: MDCVT ERROR LOG SYNONYM: 8

DISPLAY ORDER: 8

ITEM: MDCVT CONVERSION LOCKOUT

DISPLAY ORDER: 9

ITEM: MDCVT BUILD CONVERSION LIST SYNONYM: 2

DISPLAY ORDER: 2

TIMESTAMP: 60459,53192 TIMESTAMP OF PRIMARY MENU: 59904,24363

UPPERCASE MENU TEXT: MEDICINE TO CP CONVERSION MANA

NAME: MDCVT SETUP MENU TEXT: Conversion Setup AME: MDCVT SETUP

TYPE: run routine

PACKAGE: CLINICAL PROCEDURES

MENU TEXT: Conversion

CREATOR: ACKERMAN, NIE

X ACTION PRESENT: YES CREATOR: ACKERMAN, NIEN-CHIN

DESCRIPTION: This option will bring up a setup screen for the site to setup the Medicine Report Conversion parameter setup. This parameter setup allows the site to control which Medicine reports will be converted and which CP

Definition and TIU title to link to.

EXIT ACTION: K DDSFILE, DR, DA ROUTINE: SETUP^MDCVT

UPPERCASE MENU TEXT: CONVERSION SETUP

NAME: MDCVT RUN MENU TEXT: Run the Conversion Process

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will start the Medicine Report conversion to

<sup>1</sup> Patch MD\*1.0\*5 August 2006 Patch 5 menu options added.

Clinical Procedures. This option will only convert reports for procedures that have the "CONVERT Y/N" field set to "Yes" under the MEDICINE FILE PARAMETERS in the CP CONVERSION file (#703.9).

ROUTINE: EN^MDCVT

UPPERCASE MENU TEXT: RUN THE CONVERSION PROCESS

NAME: MDCVT SUMMARY MENU TEXT: Summary of Conversion

Process

TYPE: print CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will generate a Medicine Report Conversion report. This report consists of a listing of all Medicine records that were processed in the conversion in variable pointer format and the status of the conversion whether the record was converted, skipped, or errored. If the record was converted, the total number of lines and bytes that the record was converted to in a TIU document will be displayed. If the record errored, the reason why

it errored will be displayed. If the record was skipped, the reason why it was skipped will be displayed.

DIC  $\{DIP\}$ : MDD(703.9, L.: 0

FLDS: [MD CONVERSION SUMMARY]

BY: [MD CONVERSION SUMMARY]

UPPERCASE MENU TEXT: SUMMARY OF CONVERSION PROCESS

NAME: MDCVT DISK SPACE MENU TEXT: Disk Space Requirements

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will generate a summary of the Medicine report conversion. This summary consists of a list of the files converted to Clinical Procedures, the count of records converted, the total lines and Bytes

the records were converted in each file.

ROUTINE: SUMMARY^MDCVT

UPPERCASE MENU TEXT: DISK SPACE REQUIREMENTS

NAME: MDCVT LIST OF TIU TITLES MENU TEXT: List of TIU Titles Needed

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will allow the user to generate a list of Medicine procedures and the TIU titles needed to be created for the procedures that will be used for the Medicine report conversion. The PRINT NAME of the procedures in the PROCEDURE/SUBSPECIALTY file (#697.2) will be used in the display. This list will list the procedures and titles for a Medicine Package

Procedure, if the "Convert Y/N" parameter is set to "Yes" and the "Use TIU Note Title" parameter is blank in the Conversion Setup option.

ROUTINE: DISP^MDSTATU

UPPERCASE MENU TEXT: LIST OF TIU TITLES NEEDED

NAME: MDCVT TOTALS MENU TEXT: Conversion Totals By Status

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will verify that the Medicine reports conversion

complete and are in appropriate statuses.

ROUTINE: TOTALS^MDCVT

UPPERCASE MENU TEXT: CONVERSION TOTALS BY STATUS

NAME: MDCVT ERROR LOG MENU TEXT: Error Log

TYPE: print CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option generates a log of all the errors that occurred with each Medicine report during the conversion. The listing consists of the CONVERSION ID and ERROR MESSAGE. The CONVERSION ID consists of the record # concatenated with a ";" and the global location (e.g., "345; MCAR(699, ").

DIC {DIP}: MDD(703.9, L.: 0

FLDS: [MD CONVERSION ERRORS] BY: [MD CONVERSION ERRORS]

UPPERCASE MENU TEXT: ERROR LOG

NAME: MDCVT CONVERSION LOCKOUT MENU TEXT: Conversion Lockout TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will let the user place a specialty/procedure or ALL specialty/procedures Enter/Edit and Report options 'OUT OF SERVICE' in

Medicine package. It will also set Kernel site parameter MD MEDICINE CONVERTED to "YES" when all specialties/procedures enter/edit and report options are disabled or when the user indicated that all Medicine reports has been converted.

ROUTINE: LOCKOUT^MDCVT UPPERCASE MENU TEXT: CONVERSION

LOCKOUT

NAME: MDCVT BUILD CONVERSION LIST MENU TEXT: Build Conversion List TYPE: action CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES E ACTION PRESENT: YES

X ACTION PRESENT: YES

DESCRIPTION: The user will need to run this option before using the [MDCVT RUN], Run the Conversion Process, option. This option will let the user build

the conversion list of the Medicine file records for the CP CONVERSION file (#703.9). It will populate the CONVERSION LOG sub-file (#703.92) with all entries in the "AC" cross reference in the MEDICAL PATIENT file (#690) and

the STATUS field as "Ready to Convert" for each entry. This option can be queued. Once the conversion list is built, this option can also be used to add new additional entries in the Medicine file into the conversion list. This option will not overwrite the existing entries in the CONVERSION LOG but add to the list.

EXIT ACTION: K MDS ENTRY ACTION: S MDS=\$\$BLD^MDCVT1()

UPPERCASE MENU TEXT: BUILD CONVERSION LIST

<sup>1</sup>NAME: MD PROCESS NOSHOW/CANCEL

MENU TEXT: Process No Show/Cancel Studies

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option is tasked to run daily. It will check for any appointment that is No Show or Cancelled for CP studies in the "Pending Instrument Data" status.

ROUTINE: EN1^MDWCAN

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*11 June 2009 Add new exported option.

UPPERCASE MENU TEXT: PROCESS NO SHOW/CANCEL STUDIES

<sup>1</sup>NAME: MD DEVICE SURVEY TRANSMISSION MENU TEXT: MD Device Survey

Transmission

TYPE: run routine CREATOR: ACKERMAN, NIEN-CHIN

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option will run the device survey collection routine and

capture the data for transmission.

ROUTINE: COL^MDDEVCL

UPPERCASE MENU TEXT: MD DEVICE SURVEY TRANSMISSION

NAME: MD COORDINATOR MENU TEXT: CP Coordinator Menu

TYPE: menu

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This is the menu for the person that is the ADPAC for Clinical

Procedures. It includes all of the user interface options.

ITEM: MD AUTO CHECK-IN SETUP

ITEM: MD HIGH VOLUME PROCEDURE SETUP

ITEM: MD DICOM
ITEM: MD CARTCL
ITEM: MD UTILITIES

NAME: MD DICOM MENU TEXT: CP - DICOM Interoperability

TYPE: edit

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This option improves interoperability between Clinical Procedures and VistA Imaging CPRS Consult Request Tracking DICOM. There are three capabilities:

First, the VistA Imaging consult accession number sss-GMR-nnnnnnnn can be used for the Clinical Procedures Instrument Order Number.

Second, the timing of the DICOM Modality Worklist creation is changed from order release to check-in, making it much more useful.

Third, the VistA Imaging HL7 message body can be used instead of the CP HL7 message body. (The VistA Imaging HL7 has much more information than the CP HL7.)

Note: This is for bidirectional CP instruments only. Also, the CP must have an entry in the CLINICAL SPECIALTY DICOM & HL7 file (#2006.5831) to have DICOM Modality Worklist and HL7.

DIC {DIC}: MDS(702.09, DIC(0): AEQM DIE: MDS(702.09, DR {DIE}: .19 UPPERCASE MENU TEXT: CP - DICOM INTEROPERABILITY

NAME: MD CARTCL MENU TEXT: Keep Consult Open for CART-CL

TYPE: edit

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This Clinical Procedures Uni-directional Configuration flag

 $\mbox{'CONSULT}$  KEEP OPEN' provides the following functionality:

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*20 November 2010 New option added.

The CP procedure is automatically placed in Completed status after the HL7 message is sent, thus preventing an "inbound" HL7 message containing the test results from being sent back to the CPRS Consult Note.

The physician can then edit the Consult Note by manually pasting in data from a test result reporting system to complete the Consult.

This modification is beneficial for users of reporting systems-such as the Clinical Assessment, Reporting, and Tracking System for Cardiac Catheterization Laboratories (CART-CL) application-who do not want the test results from the medical instrument to populate the CPRS Consult Note, but prefer to manually paste the test results from the reporting system into the Consult Note.

The 'CONSULT KEEP OPEN' flag must be set to Yes for this functionality to work.

DIC {DIC}: MDS(702.09, DIC(0): AEQM DIE: MDS(702.09, DR {DIE}: .401 UPPERCASE MENU TEXT: KEEP CONSULT OPEN FOR CART-CL

NAME: MD UTILITIES MENU TEXT: Conversion Utilities

TYPE: menu

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: Menu for the CP conversion utility options

ITEM: MD CONCONVERT SYNONYM: CO SYNONYM: PR ITEM: MD PROCONVERT

TIMESTAMP: 64875,49164

UPPERCASE MENU TEXT: CONVERSION UTILITIES

NAME: MD CONCONVERT

MENU TEXT: Consult to Clinical Procedure conversion utility

TYPE: run routine

LOCK: MD ADMINISTRATOR PACKAGE: CLINICAL PROCEDURES

X ACTION PRESENT: YES E ACTION PRESENT: YES

DESCRIPTION: This utility will convert existing (non-CP) consults in a

pending status to a GMRC procedure.

EXIT ACTION: K MDOPT("CONCONVERT") = ""

ROUTINE: CONVERT^MDCONUTL

UPPERCASE MENU TEXT: CONSULT TO CLINICAL PROCEDURE

NAME: MD PROCONVERT

MENU TEXT: Procedure to Clinical Procedure conversion utility

TYPE: run routine

TYPE: run routing
LOCK: MD ADMINISTRATOR PACKAGE: CLINICAL PROCEDURES

E ACTION PRESENT: YES X ACTION PRESENT: YES

DESCRIPTION: This utility will get all the pending, active and scheduled

procedures for the selected REQUEST SERVICE and convert them to CP.

EXIT ACTION: K MDOPT("PROCONVERT") = ""

ROUTINE: CONVERT^MDCONUTL

UPPERCASE MENU TEXT: PROCEDURE TO CLINICAL PROCEDUR

# 7. Cross-References

Included in this section is the information about the cross-references of the application.

FILE	FIELD	CROSS	DESCRIPTION
NUMBER	NUMBER	REFERENCE	
<sup>1</sup> <b>702</b>	.05	ACON	Used for searches when the
			user knows the Consult
			order number.
	.3	ACONV	This cross reference is used
			to keep track of which CP
			transaction study was
			created during the Medicine
			report conversion and
			which
			Medicine record it is
			associated with.
	.06	ATIU	Used for searches when the
			user knows the TIU Note
			title.
	.01	В	Regular B Cross Reference
			of the .01 field, the patient
			name.
	.04	ACP	Used for searches when the
			user knows the CP
			definition.
	.11	AINST	Used for searches when the
			user knows if the study was
	10	17077	submitted to Imaging.
	.12	AION	Used to quickly retrieve
			the study ien from the
	00	AC	instrument order number.
	.09	AS	It is a cross reference on the
			status of the CP study and it
	12	AVICIT	is used for quick look up.
	.13	AVISIT	This cross reference is used
			to make sure that a Visit file
			entry is not deleted as long
	12	A I IDNIV	as there is an entry.
	.13	AUPNV	This cross reference tells
			Visit Tracking how many
			file entries are using (point

-

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Cross References added.

			to) a Visit file entry.
Subfile	.01	В	Regular B Cross Reference
702.091			of the .01 field, error
			messages.
Subfile 702.1	.01	В	Regular B Cross Reference
			of the .01 field, image.
702.01	.02	ASPEC	Used for searches when the
			user knows the Treating
			Specialty.
	.01	В	Regular B Cross Reference
			of the .01 field, name of the
			procedure.
	.01	UC	Used to validate a new
			entry as unique without
			case sensitivity.
Subfile	.01	AINST	Used for searches when the
702.011			user knows the name of the
			instrument.
	.01	В	Regular B Cross Reference
			of the .01 field, instrument.

FILE	FIELD	CROSS	DESCRIPTION
NUMBER	NUMBER	REFERENCE	
<sup>1</sup> 702.09	.01	В	Regular B Cross Reference of the .01 field, name of the instrument.
	.01	UC	Used to validate a new entry as unique without case sensitivity.
703.1	.02	ADFN	Used for searches when the user knows the patient name.
	.03	ADTP	Used for searches when the user knows the date/time performed.
	.04	AINST	Used for searches when the user knows the name of the instrument.
	.09	ASTATUS	Sets the status for the Gateway to find studies to process.
	.05	ASTUDYID	This cross reference provide a quick look up by the study reference ID.
	.01	В	Regular B Cross Reference of the .01 field, the upload ID.
Subfile 703.11	.01	В	Regular B Cross Reference of the .01 field, upload item.
703.9	.01	В	Regular B Cross Reference of the .01 field, Name.
Subfile 703.91	.01	В	Regular B Cross Reference of the .01 field, Medicine File Parameters.
Subfile 703.92	.01	В	Regular B Cross Reference of the .01 field, Conversion ID.
	.02	AS	Used for lookup by conversion status.
704.201	.01	В	Regular B Cross Reference of the .01 field, PATIENT ID.
704.202	.09	AS	Used for lookup of active

-

 $<sup>^{\</sup>rm 1}$  Patch MD\*1.0\*6 May 2008 Cross References added.

# Cross-References

			hemodialysis studies.
	.01	В	Regular B Cross Reference
			of the .01 field, the
			hemodialysis ID.
	.02	С	C Cross Reference of the
			.02 field, PATIENT record
			number.
704.209	.01	В	Regular B Cross Reference
			of the .01 field, SETTING
			NAME.

# 8. Archiving and Purging

There is no archiving capability at this time. Purging is available in the CPGateway through the Set Maximum Log Entries option. See description below.

**Set Maximum Log Entries** allows the user to adjust the number of entries that are displayed in the log file. Once this value is reached, entries will be purged from the beginning of the log to keep the log file from growing too large. This value will take effect after the next polling operation so if the current poll value is 300 seconds it may take up to 5 minutes for the new value to be used. Allowable values are 100 to 10000 entries. When the CP Gateway is shut down, all entries are purged from the log file.

**Note**: Purging is also done daily while the CP Gateway is running. This purge deletes the raw data that comes across from the instrument. The CP Gateway keeps data for a specified number of days based on the entry in the system parameter "Days to keep Instrument Data". Data older than this will be purged. The data to be deleted is already matched with a study. The fields purged are the Item Value field (#.1) and Item Text field (#.2) of the Upload Item multiple in the CP Results file (#703.1).

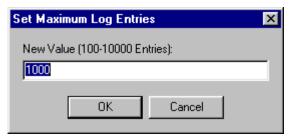


Figure 8-1

Archiving and Purging

## 9. Callable Routines

<sup>1</sup>Entry points provided by the Clinical Procedures V. 1.0 package to other packages are listed below.

**Routine: MDAPI (Controlled Subscription)**COMPONENT: \$\$EXTDATA(MDPROC)

VARIABLES: MDPROC

Type: Input

The CP Definition IEN from CP DEFINITION

file (702.01)

Type: Output

This is an extrinsic function and it

returns: 1/0 for Yes/No.

Entry Point to check if a medical device is associated with the CP Definition.

COMPONENT: \$\$TIUCOMP(MDNOTE)

VARIABLES: MDNOTE Type: Input

The TIU Document IEN from TIU DOCUMENT

file (#8925).

\$\$TIUCOMP Type: Output

This is an Extrinsic Function and it returns: 0/1 for fail/success of transaction completion.

Entry Point to complete a CP transaction.

COMPONENT: \$\$TIUDEL(MDNOTE) VARIABLES: MDNOTE Type: Input

The TIU Document IEN from TIU DOCUMENT

file (#8925).

Entry Point to clean up the CP Transaction file entry of the TIU Note that was deleted.

COMPONENT: ISTAT(MDARR) VARIABLES: MDARR Type: Input

An array of the following:

MDARR(0)="0^error message" or "1^success

message"

MDARR(1)=TrackID (CP;Transaction IEN)

MDARR(2)=Image(s) Queue Number

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Description modified and callable routines added.

MDARR(3..N)=Warnings, if error(s) exist.

Entry Point to update Clinical Procedures of the result of the image(s) that was copied to the Imaging Server.

COMPONENT: ITIU(RESULTS, DFN, CONSULT, VSTRING)

VARIABLES: RESULTS Type: Output

## RESULTS(0) will equal one of the

following (Required)

; IEN of the TIU note if successful

; or on failure one of the following status messages

; -1^No patient DFN

; -1^No Consult IEN

; -1^No VString

; -1^Error in CP transaction

; -1^Unable to create CP transaction

; -1^Unable to create the TIU document

-1^No such consult for this patient.

DFN Type: Input

Patient IEN. (Required)

CONSULT Type: Input

Consult IEN. (Required)

VSTRING Type: Input

VString data for TIU Note. (Required)

This entry point enables VistA Imaging to retrieve/create a

TIU note for a consult for attaching images to.

#### **COMPONENT:**

#### \$\$TIUREAS(MDFN,MDOLDC,MDANOTE,MDNDFN,MDNEWC,MDNEWV,MDNTIU)

VARIABLES: MDFN Type: Input

Patient DFN in Patient File (#2).

MDOLDC Type: Input

The old consult number that the TIU note

is being re-assigned from.

MDANOTE Type: Input

The TIU Note internal Entry Number that

is being re-assigned.

MDNDFN Type: Input

The patient DFN who will be re-assigned

to the TIU document.

MDNEWC Type: Input

The new consult number that will be

re-assigned to the TIU document.

MDNEWV Type: Input

The new visit for the TIU document assignment.

MDNTIU Type: Input

The new re-assigned TIU document internal

entry number.

\$\$TIUREAS Type: Output

This is an extrinsic function and it returns: 1 for Success or 0^Error

Message.

This entry point enables TIU to notify CP that a TIU note was reassigned and CP needs to clean up and update the TIU note re-assignment.

#### **ROUTINE: MDRPCOP** (Private Subscription)

COMPONENT: GETVST

VARIABLES: DFN Type: Input

Patient's dfn.

RESULTS Type: Output

A subscripted array that contains a list

of visits:

1st piece has 3 pieces delimited by an

Patient DFN in Patient File (#2).

- type of visit ("A","I","V")
- date and time
- hospital location ien

2nd piece - date/time of visit

(internal format)

3rd & 4 piece - (external format)

hospital location and status.

This sub-module returns a list of visits for a given patient.

## **ROUTINE: MDAPI1** (Private Subscription)

COMPONENT: GET(RESULTS,MDARDFN,MDSDT,MDEDT,MDFLDS)

VARIABLES: RESULTS Type: Both

Input: The global ^TMP array in which to

return results. (Required)

Output: Passed by Reference

Global array returned in the FM

DIQ call

format:

MDARDFN Type: Input

The patient DFN (Required).

MDSDT Type: Input

The start date of the date range to return the data in. This must be in FM internal format. (Required).

MDEDT Type: Input

The end date of the date range to return the data in. This must be in FM internal format. (Required).

MDFLDS Type: Input

A list of fields from file #691.5 to be returned in RESULTS. MDFLDS should contain a list of fields delimited by ";" (Required).

example: MDFLDS=".01;11;20..."

Example API call:

S RESULTS="^TMP(""NAMESPACE"",\$J)"
D
GET^MDAPI1(.RESULTS,162,2900101,3021001,
".01;11")

return:

^TMP("NAMESPACE",\$J,0) will equal one of the

following,

If the call failed:

- -1^No Patient DFN.
- -1^No Start Date Range
- -1^No End Date Range.
- -1^Start Date greater than

End Date.

-1^No fields defined.

If a local variable is defined in RESULTS,

^TMP("MDAPI",\$J,0) equals

-1^Global TMP array only.

If no return array defined, ^TMP("MDAPI",\$J,0) equals -1^No return array global.

If no data,

^TMP("NAMESPACE",\$J,0) equals
-1^No data for patient.

**ROUTINE: MDPS1** (Controlled Subscription)

COMPONENT: CPA~MDPS1 VARIABLES: DFN Type: Input

Patient Internal Entry Number. (Required)

GMTS1 Type: Input

The ending date in inverse date format (9999999-date/time). (Required)

GMTS2 Type: Input

The beginning date in inverse date format

(999999-date/time). (Required)

GMTSNDM Type: Input

The maximum number of entries to return.

(Optional)

GMTSNPG Type: Input

The Page Number. (Optional)

GMTSQIT Type: Input

Quit indicator. (Optional)

This entry point will display Clinical Procedures result report that have the Procedure Summary Code of ABNORMAL.

The result consists of the Display Result of the Consult

procedure request, if it exists, and the TIU document text.

COMPONENT: CPB~MDPS1 VARIABLES: DFN Type: Input

Patient Internal Entry Number. (Required)

GMTS1 Type: Input

The ending date in inverse date format (9999999-date/time). (Required)

GMTS2 Type: Input

The beginning date in inverse date format

(999999-date/time). (Required)

GMTSNDM Type: Input

The maximum number of entries to return.

(Optional)

GMTSNPG Type: Input

The Page Number. (Optional)

GMTSQIT Type: Input

Quit indicator. (Optional)

This entry point will display a brief summary of the Clinical Procedures result Report. It displays the Consults # (if it exists), Procedure Name, Date/Time Performed, and the Procedure Summary Code.

COMPONENT: CPF~MDPS1 VARIABLES: DFN Type: Input

Patient Internal Entry Number. (Required)

GMTS1 Type: Input

The ending date in inverse date format (9999999-date/time). (Required)

GMTS2 Type: Input

The beginning date in inverse date format (9999999-date/time). (Required)

GMTSNDM Type: Input

The maximum number of entries to return.

(Optional)

GMTSNPG Type: Input

The Page Number. (Optional)

GMTSQIT Type: Input

Quit indicator. (Optional)

This entry point displays the full Clinical Procedures result report. The full report consists of the Display Result of the Consult procedure, if it exists, and the TIU document text.

COMPONENT: CPS~MDPS1 VARIABLES: DFN Type: Input

Patient Internal Entry Number. (Required)

GMTS1 Type: Input

The ending date in inverse date format (9999999-date/time). (Required)

GMTS2 Type: Input

The beginning date in inverse date format (9999999-date/time). (Required)

GMTSNDM Type: Input

The maximum number of entries to return.

(Optional)

GMTSNPG Type: Input

The Page Number. (Optional)

GMTSQIT Type: Input

Quit indicator. (Optional)

This entry point displays a one line summary of the Clinical Procedures result report. The one line summary consists of the Consult Number, if it exists, Procedure Name, Date/Time Performed, and the Procedure Summary Code.

#### COMPONENT:

EN1~MDPS1(MDGLO,MDDFN,MDSDT,MDEDT,MDMAX,MDPSC,MDALL)

VARIABLES: MDGLO Type: Both

Return Global Array (Required)

MDDFN Type: Input

Patient DFN (Internal Entry Number)

(Required)

MDSDT Type: Input

Start Date in FM Internal Format

(Optional)

MDEDT Type: Input

End Date in FM Internal Format (Optional)

MDMAX Type: Input

Number of studies to return (Optional)

MDPSC Type: Input

Procedure Summary Code to return. The four Procedure Summary Code are NORMAL,

ABNORMAL, BRODERLINE, and INCOMPLETE. By

passing this parameter, the entry point will pass studies with this Procedure

Summary Code. (Optional)

MDALL Type: Input

MDALL is flag. If MDALL =1, it identifies that all text reports with the procedures list should be returned.

This entry point returns a global Array.

COMPONENT: PR690~MDPS1

VARIABLES: MCARGDA Type: Input

The internal entry number of the Medicine

report record.

MCPRO Type: Input

The free text of the Medicine procedure name in the Procedure/Subspecialty file

(#697.2).

DFN Type: Input

Patient internal entry number.

ORHFS Type: Input

Order Entry Host File.

Prints the free text of the Medicine report.

COMPONENT: PR702~MDPS1

VARIABLES: MCARGDA Type: Input

The internal entry number of the CP

Transaction record in file (#702).

MCPRO Type: Input

The free text of the CP Definition name

in file (#702.01).

DFN Type: Input

Patient internal entry number.

ORHFS Type: Input

The Order Entry Host File.

Prints the free text of the Clinical Procedures result

interpretation.

COMPONENT: CPC~MDPS1 VARIABLES: DFN Type: Input

Patient Internal Entry Number. (Required)

GMTS1 Type: Input

The ending date in inverse date format (9999999-date/time). (Required)

GMTS2 Type: Input

The beginning date in inverse date format

(999999-date/time). (Required)

GMTSNDM Type: Input

The maximum number of entries to return.

(Optional)

GMTSNPG Type: Input

The Page Number. (Optional)

GMTSQIT Type: Input

Quit indicator. (Optional)

This entry point displays the Captioned Clinical Procedures result report. The captioned report displays the Display Result of the Consult procedure, if it exists, and the TIU document text.

## 10. External Relations

- 1. The following describes the installation environment for Version 1.0 of the Clinical Procedures package on the VistA server:
  - 1. VA FileMan V. 22 or greater
  - 2. Kernel V. 8.0 or greater
  - 3. Kernel Toolkit V. 7.3 or greater
  - 4. Kernel RPC Broker V. 1.1 or greater
  - 5. PIMS (Patient Information Management System) V. 5.3 or greater (including):
    - a. Registration V. 5.3
    - b. Scheduling V. 5.3
  - 6. Health Summary V. 2.7 or greater
  - 7. HL7 (Health Level 7) V. 1.6 or greater
  - 8. Consults/Request Tracking V. 3.0
  - 9. TIU (Text Integration Utility) V. 1.0
  - 10. Order Entry V. 3.0 (CPRS (Computerized Patient Record System) V. 1.0 (GUI V. 18.8)) or greater
  - 11. PCE (Patient Care Encounter) V. 1.0 or greater
  - 12. VistA Imaging V. 3.0 or greater (includes installation of background processor and jukebox)
  - 13. Medicine V. 2.3 (optional)
  - 14. Vitals V 5.0 (optional)

These packages must be patched up through and including the following patches before Clinical Procedures is installed:

- 1. Patch 17 of Consults/Request Tracking V. 3.0 (GMRC\*3.0\*17)
- 2. Patch 112 of Order Entry V. 3.0 (OR\*3.0\*112)
- 3. Patch 109 of Text Integration Utility V. 1.0 (TIU\*1.0\*109)
- 4. Patch 7 of Imaging V. 3.0 (MAG\*3.0\*7)
- 5. Patch 93 of HL7 V. 1.6 (HL\*1.6\*93)
- 6. Patch 98 of HL7 V. 1.6 (HL\*1.6\*98)
- 7. If Medicine V. 2.3 is installed, you must install Patch 24 of Medicine (MC\*2.3\*24), and Patch 146 of Kernel (XU\*8.0\*146).
- 2. <sup>1</sup>Interface Control Registrations (formerly known as Integration Agreements) between the Clinical Procedures software and other VistA applications exist. Database Interface Control Registrations (DICR) are available on the DBA menu on Forum. For complete information regarding the DICRs for Clinical Procedures V. 1.0, please refer to the *Integration Control Registrations (Agreements) Menu* [DBA IA ISC] option under the *DBA* [DBA] option on FORUM.

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<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*14 March 2008 External Relations list removed. Integration Agreements renamed Interface Control Registrations.

<sup>1</sup>The following screen capture shows one way to access the DBA option in FORUM:

-

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*14 March 2008 Screen capture added.

## 11. Internal Relations

<sup>1</sup>The following are the Clinical Procedures GUI Application menu option, the Clinical Procedures Site Files menu option, and the CP Hemodialysis menu option. Only the MD GUI MANAGER can be invoked independently. The MD GUI USER and MD HEMODIALYSIS USER menu option cannot be invoked independently. They are dependent upon each other. In order to use each module, please refer to the Clinical Procedures Implementation Guide to set up Clinical Procedures.

```
NAME: MD GUI USER
                                         MENU TEXT: MD GUI USER
  TYPE: Broker (Client/Server)
                                         CREATOR: ACKERMAN, NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 59331,44145
RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION
RPC: MD TMDUSER
RPC: MD UTILITIES
  UPPERCASE MENU TEXT: MD GUI USER
NAME: MD GUI MANAGER
                                         MENU TEXT: MD GUI MANAGER
  TYPE: Broker (Client/Server)
                                         CREATOR: ACKERMAN, NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 59385,45622
RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION
RPC: MD TMDUSER
RPC: MD UTILITIES
RPC: MD GATEWAY
  UPPERCASE MENU TEXT: MD GUI MANAGER
<sup>2</sup>NAME: MD HEMODIALYSIS USER
                                         MENU TEXT: HEMODIALYSIS USER
 TYPE: Broker (Client/Server)
                                         CREATOR: ACKERMAN, NIEN-CHIN
 TIMESTAMP OF PRIMARY MENU: 60387,39853
RPC: MDK GET VISTA DATA
RPC: MDK GET/SET RENAL DATA
RPC: MDK UTILITY
RPC: VAFCTFU CONVERT DFN TO ICN
RPC: VAFCTFU CONVERT ICN TO DFN
RPC: MD TMDWIDGET
RPC: MD TMDNOTE
RPC: MD TMDCIDC
RPC: MD TMDLEX
RPC: MD TMDENCOUNTER
RPC: GMV MANAGER
RPC: MD GATEWAY
RPC: MD TMDSUBMITU
```

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Description modified.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*6 May 2008 Hemodialysis User menu option added.

#### **Internal Relations**

RPC: ORWPT PTINQ RPC: GMV PTSELECT

RPC: DG SENSITIVE RECORD ACCESS RPC: DG SENSITIVE RECORD BULLETIN

RPC: MD TMDRECORDID

UPPERCASE MENU TEXT: HEMODIALYSIS USER

# 12. Package-wide Variables

No package-wide variables are used in this application.

Package-wide Variables

# 13. SAC Exemptions

There is one SAC exemption for Clinical Procedures.

1. STANDARD SECTION: 3A Namespacing

DATE GRANTED: APR 25,2002

Since the Medicine package has become a child of the Clinical Procedures package, the Clinical Procedures package is exempt from being required to export the Medicine package as part of the Clinical Procedures package.

GlossarySAC Exemptions

## 14. Software Product Security

## **Security Management**

No additional security measures are to be applied other than those implemented through Menu Manager and the package routines. Clinical Procedures uses the standard RPC broker log-in procedure to validate the user and allow access to the system.

No additional licenses are necessary to run the software.

Confidentiality of staff and patient data and the monitoring of this confidentiality is no different than with any other paper reference.

## **Security Features**

1. Mail groups and alerts.

There is one mailgroup associated with this software. This mailgroup is called MD DEVICE ERRORS. The purpose of this mailgroup is to store a list of people who will be notified if a problem arises with an automated instrument. There is one alert in the software that occurs on the VistA server if the package installation does not finish. This alert is sent to the IRMS staff member who ran the installation.

2. Remote systems.

The application does not transmit data to any remote system/facility database.

3. Archiving/Purging.

Refer to the chapter on <u>Archiving and Purging</u>, in this manual. Purging is available in the CPGateway, refer to the Clinical Procedures Gateway chapter in the Clinical Procedures Implementation Guide for more information.

4. Contingency Planning.

It is the responsibility of the using service to develop a local contingency plan to be used in the event of application problems. It is recommended that the CP Gateway be installed on a second machine as a backup in case the initial workstation containing the CP Gateway fails.

5. Interfacing.

No specialized (non VA) interfaces are used or required by the application.

#### 6. Electronic signatures.

Electronic signatures are not used in the Clinical Procedures package.

#### 7. Menus.

There are no options of special note for the Information Security Officers (ISO's) to view.

#### 8. Security Keys.

The MD MANAGER key controls access to the 'Update Study Status' and the 'Delete Study' options. A user holding this key will be able to use the 'Update Study Status' option on any study currently displayed on the screen. Holders of this key will also be taken directly to the 'Update Study Status' option when opening a study marked in status 'Error'. The 'Update Study Status' option does not do any validation on the new status assigned to the study. The 'Delete Study' option will attempt to delete the study after checking the business rules on the VistA server for the study given its current status and state on the server. This key should be given only with extreme care and only to those users that fully understand the status structure, and the ramifications of changing the status or deletion of a study.

#### 9. File Security.

MIMDED	NIA ME	CI ODAL NAME	DD	RD	WR	DEL	LAYGO	AUD
NUMBER	NAME	GLOBAL NAME	ACC	ACC	ACC	ACC	ACC	ACC
702	CP TRANSACTION	^MDD(702,	@			@		@
<sup>1</sup> 702.001	CP_TRANSACTION_TIU_HISTO	ORY ^MDD(702.001,	. @	@	@	@	@	@
702.01	CP DEFINITION	^MDS(702.01,	@		#	#	#	
702.09	CP INSTRUMENT	^MDS(702.09,	@		#	#	#	@
703.1	CP RESULT REPORT	^MDD(703.1,	@		@	@	@	@
<sup>2</sup> 703.9	CP CONVERSION	^MDD(703.9,	@	#	#	#	#	#
3704.201	HEMODIALYSIS ACCESS POI	INTS ^MDK(704.201	., @			@		@
704.202	HEMODIALYSIS STUDY	^MDK(704.202	@			@		@
704.209	HEMODIALYSIS SETTINGS	^MDK(704.209	@			@		@

#### 10. References.

There are no special reference materials for this package.

#### 11. Official Policies.

There are no special official policies for this package.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 File added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*5 August 2006 Files added.

<sup>&</sup>lt;sup>3</sup> Patch MD\*1.0\*6 May 2008 Files added.

## 15. <sup>1</sup>Vendor Interfaces

#### **List of Vendor Interfaces**

<sup>2</sup>The Puritan Bennett Clinivision, Olympus Endoworks, GE Healthcare Muse and Cardinal Health Sensormedics V-max automated device interfaces are exported with CP. Many other device interfaces are also available and you can view the complete list by visiting the <u>Clinical Procedures website (http://vista.med.va.gov/ClinicalSpecialties/clinproc)</u>. <sup>3</sup>From the Home page, select **Find a Device** and then search for devices by manufacturer, by type, or by name.

Visit the Clinical Procedures website to view specific information for a particular device. Click the **vendor** name to view the web page.

Device	Vendor	Type of Procedure Performed	Type of report with Discrete data included
<sup>4</sup> Clinivision	Puritan Bennett	Respiratory	Text
Endoworks	<u>Olympus</u>	Bronchoscopy, Colonoscopy, EGD, EGDPEG, Endoscopy, ERCP, Endo Ultrasound, Enteroscopy, Liver Biopsy, Paracentesis, Sigmoidoscopy	Text, GIF, JPG
Muse	GE Healthcare	ECG, Exercise, Holter, Pacemaker ECG	PDF
Sensormedics V-max	Cardinal Health (formerly Viasys/Sensormedics)	PFT	PDF
<sup>5</sup> Exalis	<u>Gambro</u>	Dialysis	XML
UPF Hemodialysis	B.Braun Melsungen AG	Dialysis	XML
Hypercare	Fresenius Medical Care	Dialysis	XML

For the latest vendor information, please see the <u>Clinical Procedures website</u> (http://vista.med.va.gov/ClinicalSpecialties/clinproc).

## **Device Setup Instructions**

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*14 March 2008 Deleted vendor contact information for individual contacts.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*14 March 2008 Updated vendor name list.

<sup>&</sup>lt;sup>3</sup> Patch MD\*1.0\*14 March 2008 Directions for finding a device on the CP website changed.

<sup>&</sup>lt;sup>4</sup> Patch MD\*1.0\*14 March 2008 Device names unlinked due to unavailable links.

<sup>&</sup>lt;sup>5</sup> Patch MD\*1.0\*6 May 2008 Hemodialysis exported new device entries.

Here are the setup instructions and vendor contact for each device.

#### Clinivision

**Vendor:** Puritan Bennett **Type:** Respiratory

#### **Description:**

The uni-directional interface for this instrument is currently available.

#### **Requirements:**

This instrument requires a Clinivision vendor interface.

#### **Setup Instructions:**

This section describes the installation setup for the Clinivision system. Note that a new Protocol and HL Logical Link will need to be created for this device since it is a Persistent connected device. Clinivision is not a bi-directional device. **Note:** Bi-Directional Capabilities checkbox is **not** checked. Therefore, no outbound HL Logical Link is needed and you do not need to enter any bi-directional information.

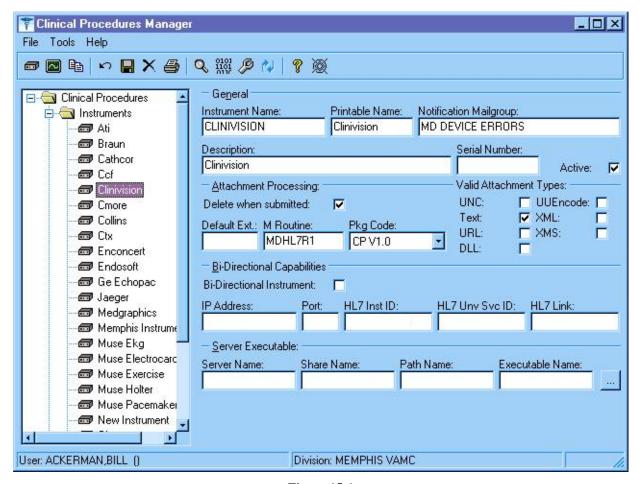


Figure 15-1

Figure 15-1 displays the settings for the Clinivision device in CP Manager.

NODE: MCAR3 INST LLP TYPE: TCP

DEVICE TYPE: Single-threaded Server STATE: Reading

TIME STARTED: SEP 18, 2002@11:45:27 TASK NUMBER: 321004

SHUTDOWN LLP ?: NO QUEUE SIZE: 100

RE-TRANSMISSION ATTEMPTS: 3 READ TIMEOUT: 60

ACK TIMEOUT: 60 EXCEED RE-TRANSMIT ACTION: ignore

TCP/IP PORT: 1030 TCP/IP SERVICE TYPE: SINGLE LISTENER

PERSISTENT: YES STARTUP NODE: ROU:614A01

IN QUEUE BACK POINTER: 1790 IN QUEUE FRONT POINTER: 1790

OUT QUEUE BACK POINTER: 1789 OUT QUEUE FRONT POINTER: 1789

Figure 15-2

Figure 15-2 shows an entry in the HL Logical Link file for the Clinivision device.

NAME: MCAR3 Device Client ITEM TEXT: Instrument HL7 Event Driver

TYPE: subscriber CREATOR: ACKERMAN, BILL

PACKAGE: CLINICAL PROCEDURES

DESCRIPTION: This Protocol is used by the HL7 Package to send results to Vista from the Clinivision

Instrument.

IDENTIFIER: E TIMESTAMP: 59039,32152

SENDING APPLICATION: INST-MCAR RECEIVING APPLICATION: MCAR-INST

TRANSACTION MESSAGE TYPE: ORU EVENT TYPE: R01

PROCESSING ID: P LOGICAL LINK: MCAR3 INST

VERSION ID: 2.3 RESPONSE MESSAGE TYPE: ACK

PROCESSING ROUTINE: D ^MDHL7A SENDING FACILITY REQUIRED?: NO

RECEIVING FACILITY REQUIRED?: NO

Figure 15-3

Figure 15-3 shows the new Protocol that will need to be entered for the Link.

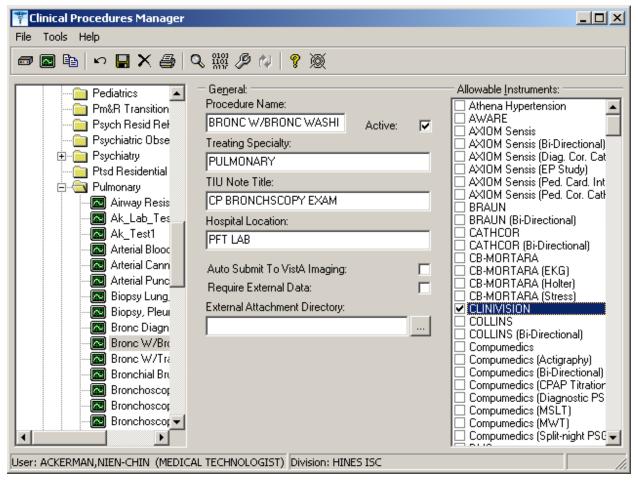


Figure 15-4

Contact Clinivision and ask the contact to report the device to the production account, port 1030.

#### **Transmission Instructions:**

No information available at this time.

#### **Manuals:**

No information available at this time.

#### **Vendor Contacts:**

http://www.clinivision.com/contact/

#### **Trouble Shooting:**

Is the machine plugged in? Is the machine on?

<sup>&</sup>lt;sup>1</sup>Figure 15-4. The device will need to be linked to a procedure in CP Manager.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Screen capture updated to show new Processing Application field.

Are all cables connected correctly?

#### **Endoworks**

**Vendor:** Olympus **Type:** Bronchoscopy, Colonoscopy, EGD, EGDPEG, Endoscopy, ERCP, Endo Ultrasound, Enteroscopy, Liver Biopsy, Paracentesis, Sigmoidoscopy

#### **Description**:

The bi-directional interface for this instrument is currently available.

#### **Requirements:**

This instrument requires an Advanced Gateway vendor interface.

#### **Setup Instructions**:

The Olympus Interface is a non-persistent interface and can share its TCP/IP port address with other non-persistent devices. To configure the Olympus (Endoworks) software, it is recommended that you consult Olympus. Olympus has the correct setting for the Endoworks software that is needed to interface with CP.

NODE: MCAR INST LLP TYPE: TCP

DEVICE TYPE: Single-threaded Server STATE: Reading

TIME STARTED: SEP 18, 2002@11:45:27 TASK NUMBER: 321004

SHUTDOWN LLP ?: NO QUEUE SIZE: 100

RE-TRANSMISSION ATTEMPTS: 3 READ TIMEOUT: 60

ACK TIMEOUT: 60 EXCEED RE-TRANSMIT ACTION: ignore

TCP/IP PORT: 1030 TCP/IP SERVICE TYPE: SINGLE LISTENER

PERSISTENT: NO STARTUP NODE: ROU:614A01

IN QUEUE BACK POINTER: 1790 IN QUEUE FRONT POINTER: 1790

OUT QUEUE BACK POINTER: 1789 OUT QUEUE FRONT POINTER: 1789

Figure 15-5

Figure 15-5 displays the settings for the standard non-persistent inbound HL Logical Link.

<sup>&</sup>lt;sup>1</sup> The site will need to set up an Olympus type in CPManager.exe for each type of procedure, (such as Olympus (Bronchoscopy), Olympus (Colonoscopy), etc.). Please refer to the Clinical Procedures web site for the device settings for each type of procedure.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Added information about setting up a type for each procedure.

NODE: MCAR OUT LLP TYPE: TCP

DEVICE TYPE: Non-Persistent Client STATE: Idle

AUTOSTART: Enabled TIME STARTED: FEB 25, 2008@08:57:54

TASK NUMBER: 3231951 SHUTDOWN LLP ?: NO

**QUEUE SIZE: 100** 

RE-TRANSMISSION ATTEMPTS: 3 READ TIMEOUT: 60

ACK TIMEOUT: 60 EXCEED RE-TRANSMIT ACTION: ignore

TCP/IP ADDRESS: 10.3.17.141 TCP/IP PORT: 9027

TCP/IP SERVICE TYPE: CLIENT (SENDER) PERSISTENT: NO

STARTUP NODE: DEV:DEVISC4A1 IN QUEUE BACK POINTER: 244

IN QUEUE FRONT POINTER: 244 OUT QUEUE BACK POINTER: 251

**OUT QUEUE FRONT POINTER: 244** 

Figure 15-6

Figure 15-6 displays the settings for the standard non-persistent outbound HL Logical Link.

#### **Transmission Instructions:**

No information available at this time

#### **Manuals:**

No information available at this time.

#### **Costs:**

No information available at this time.

#### **Trouble Shooting:**

Is the machine plugged in?
Is the machine on?
Are all cables connected correctly?

#### Muse

**Vendor:** GE Healthcare **Type:** ECG

#### **Description:**

The bi-directional interface for this instrument is currently available.

#### **Requirements:**

This instrument requires a Muse HL7 vendor interface.

#### **Setup Instructions:**

The Muse Interface is a Persistent Interface and must have its own TCP/IP Port address. For configuring the Muse software, it is recommended that you consult with GE Healthcare. GE Healthcare has the correct setting for the Muse software that is needed to interface with CP.

<sup>1</sup>The Muse can be set up for different Cardiology procedures such as Holter and Exercise Tolerence Test. Please refer to the Clinical Procedures web page for the setup of the device in CPManager.exe for each type of procedure.

#### **Transmission Instructions:**

To send data to Clinical Procedures once the results have been sent from the Cart to the MUSE server, follow these steps:

- 1. The MUSE generated hard copy is assigned to a cardiologist for over-reading (reviewing).
- 2. Changes are made on the interpretation, signed by the doctor and returned to the EKG Department.
- 3. EKG Tech logs on to the MUSE. (All users of the MUSE are assigned a number and password with certain levels of NECESSARY access.)
- 4. EKG Tech selects over reader (reviewing Cardiologist).
- 5. EKG Tech selects the patient.
- 6. EKG Tech selects and then edits the interpretation.
- 7. EKG Tech selects either Confirm and Print, or Confirm. If Confirm and Print is selected, the HL7 result is sent, and the report is printed. If only Confirm is selected, just the HL7 result is sent.

#### **Manuals:**

No information available at this time.

#### **Costs:**

No information available at this time.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Added information about setting up different procedures.

#### **Trouble Shooting:**

- 1. Is the machine plugged in?
- 2. Is the machine on?
- 3. Are all cables connected correctly?

#### **Sensormedics V-MAX**

**Vendor:** Cardinal Health **Type:** PFT

#### **Description:**

The bi-directional interface for this instrument is currently available.

#### **Requirements:**

This instrument requires a Netlink vendor interface.

#### <sup>1</sup>Configuration Files:

This file contains the configuration parameters for the Vmax software. The vendor should already have a copy of this file.

## **Setup Instructions:**

The Sensormedics Interface is a Non-Persistent Interface and can share TCP/IP ports with other Non-Persistent device interfaces. The Sensormedics V-MAX software must have a shared directory to hold the report document that is created. The directory might be on the PC or on a network share. The key point is that the directory must be accessible from the Sensormedics V-MAX software.

- 1. Start the Sensormedics V-MAX software.
- **2.** Click on the Reports Button.
- 3. Select the Netlinks/IS menu from the menu bar.
- **4.** Select TCP/IP from the File Menu on the menu bar.
- **5.** Enter the TCP/IP and Port address to the listener that will be receiving the data from the Sensormedics V-MAX software.
- **6.** Exit back to the Reports Screen.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*14 March 2008 References to Vmaxconfigfile.zip and sample reports were removed because they are no longer hosted on the Clinical Procedures website.

7. Select Setup from the File Menu and enter the Full NETWORK path to the Share directory where you want the PDF document to be stored.

#### **Transmission Instructions:**

A path must be setup where the PDF report will be stored prior to being transmitted to VISTA Imaging. This path is usually preset to C:\PDFFiles\ and should be changed to \\((PC Network name)\PDFFiles\). Also, the directory C:\PDFFiles should have Share enabled with Read, Write, Delete permissions for both Imaging and the PC on which the share directory exists. The following instructions are for transmitting the final patient report to Clinical Procedures.

Note: If the patient whose results you wish to send is already being displayed on the monitor, you can start at step 5.

1. From the Vmax Program Manager screen click the Find Patient Button.



The Find Patient window opens. No patients are displayed.

- 2. Set search criteria (Last Name, ID, etc.) if any, and click on F1. A list of patients matching your search criteria appears.
- **3.** Select the patient whose results you wish to send by clicking on their name. The selected patient's name is highlighted.
- **4.** Click the F3 button to load the selected patients results data. The Vmax Program Manager screen reappears.
- **5.** From the Vmax Program Manager screen click the Reports Button.



The Reports screen appears.

- **6.** Select the report to process for this patient from the Reports selection box on the left side of the screen. The selected report appears in the upper left box as the Default Patient Report.
- 7. From the Menu bar click the PrintPDF button to compile the PDF report. A dialog box appears momentarily, indicating the progress of the PDF file creation.
- **8.** From the Menu bar click Netlink/IS® to open the Netlink Transmission Manager.



The Transmission Manager screen appears

## Files to be backed up:

You need to backup these files to preserve the operation of Vmax. These files should be backed up after the Vmax is working in production. This list was last updated on May 13, 2003.

#### Vision folder files used in Netlink communications.

(Depending on software version and configuration, not all files may be present) All files are located in the C:\Vision folder

The following files always exist and have user-modifiable content

• Id_text.dbf	Invalid.dbf
• Text_cfg.dbf	Xmit_cfg.dbf
Xmitcom.dbf	Xmithdft.dbf
Xmithost.dbf	Xmitparm.dbf
Xmitpath.dbf	Xmitxref.dbf

The following files **sometimes exist** and have **user-modifiable** content: They should be manually copied if needed.

• Except	Replace
• User_1.dbf	• User_2.dbf
• User_3.dbf	• User_4.dbf
• User_5.dbf	• User_6.dbf
• User_7.dbf	•

The following files are shipped **standard** with the software and are **NOT user-modifiable**. They should only be loaded from the software install disk.

Batchsnd.db1	Ctrl_str.dbf
Received.txt	Response.txt
Smascii.dbf	• Smhl7def.dbf
Smvadef.dbf	Xexcept.dbf
Xmiticon.dbf	Xmitprm.dbf
Xreplace	

The following files are **modified by the software** during operation and **should NOT be user-modified**: They should only be generated by running the software.

Batchsnd.dbf	• Fileout1.txt
• Fileout2.txt	• Text_rpt.dbf
Text_rpt.fpt	• Usehost

<sup>&</sup>lt;sup>1</sup>Please refer to the Clinical Procedures web page for the device setup in CPManager.exe.

#### **Manuals:**

No information available at this time.

#### **Costs:**

No information available at this time.

#### **Trouble Shooting:**

Is the machine plugged in?
Is the machine on?
Are all cables connected correctly?

#### <sup>2</sup>B. Braun

**Vendor:** B. Braun Melsungen AG **Type:** Hemodialysis

#### **Description:**

Both uni-directional and bi-directional interfaces for this instrument are currently available.

#### **Requirements:**

This device uses B. Braun's UPF Hemodialysis software.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Added reference to CP web page for device setup.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*6 May 2008 Added Hemodialysis vendor B. Braun.

## **Setup Instructions (B. Braun Device Settings for CP Manager)**

<b>Setting For:</b>	Clinical Procedures Device Manager
Procedure Type (HL7 Universal Service ID)	BRAUN (Bi-Directional)
	Device Setup for the BRAUN (Bi-Directional)
Settings:	NAME: BRAUN (Bi-Directional) PRINT NAME: BBRAUN DESCRIPTION: BBraun Dialysis Device Interface M ROUTINE: MDHL7D PACKAGE CODE: CP V1.0 ATTACH: UNC BI-DIRECTIONAL: YES HL7 INST: BRAUN HL7 UNIVERSAL SERVICE ID:

## <sup>1</sup>Fresenius Medical Care

**Vendor:** Fresenius Medical Care **Type:** Hemodialysis

## **Description:**

Both uni-directional and bi-directional interfaces for this instrument are currently available.

#### **Requirements:**

This device uses Fresenius's Hypercare software.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Added Hemodialysis vendor Fresenius.

## **Setup Instructions (Hypercare Device Settings for CP Manager)**

<b>Setting For:</b>	Clinical Procedures Device Manager		
Procedure Type (HL7 Universal Service ID)	Fresenius (Bi-directional)		
	Device Setup for the Fresenius (Bi-directional)		
	NAME: Fresenius (Bi-directional)		
	PRINT NAME: Fresenius		
	DESCRIPTION: Fresenius Dialysis Device Interface		
	M ROUTINE: MDHL7D		
Settings:	PACKAGE CODE: CP V1.0		
bettings.	ATTACH: UNC		
	BI-DIRECTIONAL: YES		
	HL7 INST: Fresenius		
	HL7 UNIVERSAL SERVICE ID:		
	Verified at Hines By: W. A. Ackerman		

## <sup>1</sup>Gambro

**Vendor:** Gambro **Type:** Hemodialysis

#### **Description:**

Both uni-directional and bi-directional interfaces for this instrument are currently available.

#### **Requirements:**

This device uses Gambro's Exalis software.

#### **Setup Instructions:**

#### **Interface Notes for Exalis to Hemodialysis**

• Exalis runs on a PC. VA-Exalis\_Interface runs on the same PC as Exalis. The PC must be networked so that there can be a TCP\IP connection between VistA and VA-Exalis\_Interface. The Exalis software runs as a standard application (not a service), thus requiring that the PC has been logged on with some user account rather than simply

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Added Hemodialysis vendor Gambro.

- turned on. At this time VA-Exalis\_Interface, is a standard application. It may become a service if design and resource constraints allow.
- VA-Exalis\_Interface is a .NET application and so requires the .NET Framework 1.1 Redistributable which is freely downloadable from Microsoft and will be included on the VA-Exalis\_Interface CDROM.

#### **B.** Braun Device Settings for CP Manager

<b>Setting For:</b>	Clinical Procedures Device Manager		
Procedure Type (HL7 Universal Service ID)	GAMBRO_EXALIS		
	Device Setup for the GAMBRO_EXALIS		
Settings:	NAME: GAMBRO_EXALIS PRINT NAME: Gambro Exalis DESCRIPTION: Cobe Dialysis Device Interface M ROUTINE: MDHL7D PACKAGE CODE: CP V1.0 ATTACH: UNC BI-DIRECTIONAL: NO HL7 INST: GAMBRO_EXALIS HL7 UNIVERSAL SERVICE ID:		

## 16. Glossary

**Access Code** A unique sequence of characters known by and assigned only to the user, the system manager and/or designated alternate(s). The access code (in conjunction with the verify code) is used by the computer to identify authorized users.

**Action** A functional process that a clinician or clerk uses in the TIU computer program. For example, "Edit" and "Search" are actions. Protocol is another name for Action.

**ADP Coordinator/ADPAC/Application Coordinator** Automated Data Processing Application Coordinator. The person responsible for implementing a set of computer programs (application package) developed to support a specific functional area such as clinical procedures, PIMS, etc.

<sup>1</sup>**API** Application programming interface, an interface that a computer system, library or application provides in order to accept requests for services from other programs, and/or to allow data to be exchanged between them.

**Application** A system of computer programs and files that have been specifically developed to meet the requirements of a user or group of users.

**Archive** The process of moving data to some other storage medium, usually a magnetic tape, and deleting the information from active storage in order to free-up disk space on the system.

**ASU** Authorization/Subscription Utility, an application that allows sites to associate users with user classes, allowing them to specify the level of authorization needed to sign or order specific document types and orderables. ASU is distributed with TIU in this version; eventually it will probably become independent, to be used by many VistA packages.

**Attachments** Attachments are files or images stored on a network share that can be linked to the CP study. CP is able to accept data/final result report files from automated instruments. The file types that can be used as attachments are the following:

- .txt Text files
- .rtf Rich text files
- .jpg JPEG Images
- .jpeg JPEG Images
- .bmp Bitmap Images
- .tiff TIFF Graphics (group 3 and group 4 compressed and uncompressed types)
- .pdf Portable Document Format
- .html Hypertext Markup Language

.DOC (Microsoft Word files) are not supported. Be sure to convert .doc files to .rtf or to .pdf format.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

- **Background Processing** Simultaneous running of a "job" on a computer while working on another job. Examples would be printing of a document while working on another, or the software might do automatic saves while you are working on something else.
- **Backup Procedures** The provisions made for the recovery of data files and program libraries and for restart or replacement of ADP equipment after the occurrence of a system failure.
- **Boilerplate Text** A pre-defined TIU template that can be filled in for Titles, Speeding up the entry process. TIU exports several Titles with boilerplate text which can be modified to meet specific needs; sites can also create their own.
- <sup>1</sup>Broker Software which mediates between two objects, such as a client and a server or a repository and a requestor.
- **Browse** Lookup the file folder for a file that you would like to select and attach to the study. (e.g., clicking the "..." button to start a lookup).
- **Bulletin** A canned message that is automatically sent by MailMan to a user when something happens to the database.
- **Business Rule** Part of ASU, Business Rules authorize specific users or groups of users to perform specified actions on documents in particular statuses (e.g., an unsigned CP note may be edited by a provider who is also the expected signer of the note).
- **Class** Part of Document Definitions, Classes group documents. For example, "CLINICAL PROCEDURES" is a class with many kinds of Clinical Procedures notes under it. Classes may be subdivided into other Classes or Document Classes. Besides grouping documents, Classes also store behavior which is then inherited by lower level entries.
- **Consult** Referral of a patient by the primary care physician to another hospital service/ specialty, to obtain a medical opinion based on patient evaluation and completion of any procedures, modalities, or treatments the consulting specialist deems necessary to render a medical opinion.
- **Contingency Plan** A plan that assigns responsibility and defines procedures for use of the backup/restart/recovery and emergency preparedness procedures selected for the computer system based on risk analysis for that system.
- **CP** Clinical Procedures.
- **CP Definition** CP Definitions are procedures within Clinical Procedures.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

- <sup>1</sup>CP Gateway The service application that prepares the data contents of HL7 messages for use in CP Hemodialysis. It requires no direct user interaction.
- **CP Study** A CP study is a process created to link the procedure result from the medical device or/and to link the attachments browsed from a network share to the procedure order.
- **CPRS** Computerized Patient Record System. A comprehensive VistA program, which allows clinicians and others to enter and view orders, Progress Notes and Discharge Summaries (through a link with TIU), Problem List, view results, reports (including health summaries), etc.

**Data Dictionary** A description of file structure and data elements within a file.

**2DBIA** Database integration agreement.

**Delphi** A programming language, also known as Object Pascal.

**Device** A hardware input/output component of a computer system (e.g., CRT, printer).

**Dynamically-Linked Library** – provides the benefit of shared libraries.

**Document Class** Document Classes are categories that group documents (Titles) with similar characteristics together. For example, Cardiology notes might be a Document Class, with Echo notes, ECG notes, etc. as Titles under it. Or maybe the Document Class would be Endoscopy Notes, with Colonoscopy notes, etc. under that Document Class.

**Document Definition** Document Definition is a subset of TIU that provides the building blocks for TIU, by organizing the elements of documents into a hierarchy structure. This structure allows documents (Titles) to inherit characteristics (such as signature requirements and print characteristics) of the higher levels, Class and Document Class. It also allows the creation and use of boilerplate text and embedded objects.

<sup>4</sup>**DUZ** The internal entry number inside FileMan for a particular user.

**Edit** Used to change/modify data typically stored in a file.

**Field** A data element in a file.

**File** The M construct in which data is stored for retrieval at a later time. A computer record of related information.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*6 May 2008 Glossary terms added.

<sup>&</sup>lt;sup>3</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

<sup>&</sup>lt;sup>4</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

**File Manager or FileMan** Within this manual, FileManager or FileMan is a reference to VA FileMan. FileMan is a set of M routines used to enter, edit, print, and sort/search related data in a file, a database.

**File Server** A machine where shared software is stored.

**Gateway** The software that performs background processing for Clinical Procedures.

**Global** An M term used when referring to a file stored on a storage medium, usually a magnetic disk.

**GUI** Graphical User Interface - a Windows-like screen that uses pull-down menus, icons, pointer devices, and other metaphor-type elements that can make a computer program more understandable, easier to use, allow multi-processing (more than one window or process available at once), etc.

<sup>1</sup>**HFS** Host File System

**HL7** Health Level 7 messaging, a language which various healthcare systems use to interface with one another.

**IEN** Internal Entry Number

Interpreter Interpreter is a user role exported with USR\*1\*19 to support the Clinical Procedures Class. The role of the Interpreter is to interpret the results of a clinical procedure. Users who are authorized to interpret the results of a clinical procedure are sent a notification when an instrument report and/or images for a CP request are available for interpretation. Business rules are used to determine what actions an interpreter can perform on a document of a specified class, but the interpreter themselves are defined by the Consults application. These individuals are 'clinical update users' for a given consult service.

**IRMS** Information Resource Management Service.

**Kernel** A set of software utilities. These utilities provide data processing support for the application packages developed within the VA. They are also tools used in configuring the local computer site to meet the particular needs of the hospital. The components of this operating system include: MenuMan, TaskMan, Device Handler, Log-on/Security, and other specialized routines.

**LAYGO** An acronym for Learn As You Go. A technique used by VA FileMan to acquire new information as it goes about its normal procedure. It permits a user to add new data to a file.

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<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Glossary terms added.

M Formerly known as MUMPS or the Massachusetts (General Hospital) Utility Multi-Programming System. This is the programming language used to write all VistA applications.

**MailMan** An electronic mail, teleconferencing, and networking system.

**Menu** A set of options or functions available to users for editing, formatting, generating reports, etc.

**Module** A component of a software application that covers a single topic or a small section of a broad topic.

**Namespace** A naming convention followed in the VA to identify various applications and to avoid duplication. It is used as a prefix for all routines and globals used by the application.

**Network Server Share** A machine that is located on the network where shared files are stored.

**Notebook** This term refers to a GUI screen containing several tabs or pages.

**OI** Office of Information, formerly known as Chief Information Office Field Office, Information Resource Management Field Office, and Information Systems Center.

**Option** A functionality that is invoked by the user. The information defined in the option is used to drive the menu system. Options are created, associated with others on menus, or given entry/exit actions.

**Package** Otherwise known as an application. A set of M routines, files, documentation and installation procedures that support a specific function within VistA.

**Page** This term refers to a tab on a GUI screen or notebook.

**Password** A protected word or string of characters that identifies or authenticates a user, a specific resource, or an access type (synonymous with Verify Code).

**Pointer** A special data type of VA FileMan that takes its value from another file. This is a method of joining files together and avoiding duplication of information.

**Procedure Request** Any procedure (EKG, Stress Test, etc.) which may be ordered from another service/specialty without first requiring formal consultation.

**Program** A set of M commands and arguments, created, stored, and retrieved as a single unit in M.

<sup>1</sup>Protocol A set of rules governing communication within and between computing endpoints.

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<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

**Queuing** The scheduling of a process/task to occur at a later time. Queuing is normally done if a task uses up a lot of computer resources.

<sup>1</sup>**RAID** Redundant array of inexpensive disks, a data storage scheme using multiple hard drives to share or replicate data among the drives.

**Result** A consequence of an order. Refers to evaluation or status results. When you use the Complete Request (CT) action on a consult or request, you are transferred to TIU to enter the results.

**<RET>** Carriage return.

**Routine** A set of M commands and arguments, created, stored, and retrieved as a single unit in M.

<sup>2</sup>RPC Remote Procedure Call, a protocol that allows a computer program running on one host to cause code to be executed on another host.

**SAC** Standards and Conventions.

**Security Key** A function which unlocks specific options and makes them accessible to an authorized user.

**Sensitive Information** Any information which requires a degree of protection and which should be made available only to authorized users.

**Site Configurable** A term used to refer to features in the system that can be modified to meet the needs of each site.

**Software** A generic term referring to a related set of computer programs. Generally, this refers to an operating system that enables user programs to run.

**Status Symbols** Codes used in order entry and Consults displays to designate the status of the order.

**Task Manager or TaskMan** A part of Kernel which allows programs or functions to begin at specified times or when devices become available. See Queuing.

**Title** Titles are definitions for documents. They store the behavior of the documents which use them.

**TIU** Text Integration Utilities.

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*6 May 2008 Glossary terms added.

<sup>1</sup>UNC Universal naming Convention.

**URL** Uniform Resource Locator – a means of finding a resource (such as a web page or a device) on the Internet.

**User** A person who enters and/or retrieves data in a system, usually utilizing a CRT.

**User Class** User Classes are the basic components of the User Class hierarchy of ASU (Authorization/Subscription Utility) which allows sites to designate who is authorized to do what to documents or other clinical entities.

**User Role** User Role identifies the role of the user with respect to the document in question (e.g., Author/Dictator, Expected Signer, Expected Cosigner, Attending Physician, etc.).

**Utility** An M program that assists in the development and/or maintenance of a computer system.

<sup>2</sup>UUEncoded format A form of binary to text encoding whose name derives from "Unix-to-Unix encoding."

**Verify Code** A unique security code which serves as a second level of security access. Use of this code is site specific; sometimes used interchangeably with a password.

**VistA** Veterans Health Information Systems and Technology Architecture.

**Workstation** A personal computer running the Windows 9x or NT operating system.

<sup>3</sup>XML Extensible Markup Language – A simplified subset of Standard Generalized Markup Language (SGML). Its primary purpose is to facilitate the sharing of data across different information systems.

**XMS** Extended Memory Specification – The specification describing the use of extended memory in real mode for storing data.

April 2004

<sup>&</sup>lt;sup>1</sup> Patch MD\*1.0\*6 May 2008 Glossary terms added.

<sup>&</sup>lt;sup>2</sup> Patch MD\*1.0\*6 May 2008 Glossary term added.

<sup>&</sup>lt;sup>3</sup> Patch MD\*1.0\*6 May 2008 Glossary terms added.

Glossary