### Revision History

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

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1 Patch MD*1.0*42 March 2016 Patch 42 release added
2 Patch MD*1.0*29 August 2014 Patch 29 release added
3 Patch MD*1.0*20 November 2010 Patch 20 release added
4 Patch MD*1.0*21 June 2010 Patch 21 release added.
5 Patch MD*1.0*11 June 2009 Patch 11 release added.
Menu Options By Name.

<table>
<thead>
<tr>
<th>Patch MD<em>1.0</em>6 released. Added description of Hemodialysis module and 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.</th>
<th>May 2008</th>
<th>Shirley Ackerman, Alfred Bustamante</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patch MD<em>1.0</em>14 released. Updated Routine Descriptions, File List, Parameter Definitions, Protocols, menu options, and Cross References. Deleted bad references to Sample Reports in Ch. 15.</td>
<td>March 2008</td>
<td>Shirley Ackerman, Alfred Bustamante</td>
</tr>
<tr>
<td>Patch MD<em>1.0</em>5 released August 2006. Updated File List, Package Default Definition, Parameter Definitions, and menu options.</td>
<td>Documented February 2008</td>
<td>Shirley Ackerman, Alfred Bustamante</td>
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<tr>
<td>Patch MD<em>1.0</em>2 released.</td>
<td>August 2006</td>
<td></td>
</tr>
<tr>
<td>Patch MD<em>1.0</em>1 released.</td>
<td>July 2004</td>
<td></td>
</tr>
<tr>
<td>Originally released.</td>
<td>April 2004</td>
<td></td>
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1. Introduction

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.

1Hemodialysis 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.

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1 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.

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1**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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1 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.
3. Clinical Instrument Interface Specifications

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

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:
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.

---

1 Patch MD*1.0*14  March 2008  Outdated link removed and replaced with directions to document.
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
MDAPI1 ; HOIFO/DP/NCA - Prococardiogram Data Extraction ;12/4/02 12:32 ;;1.0;CLINICAL PROCEDURES;**1**;Apr 01, 2004
MDAR7M ; HOIFO/NCA - Get Text Impression ;2/27/09 12:38 ;;1.0;CLINICAL PROCEDURES;**10,13,24**;Apr 01, 2004;Build 8
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 ; [05-05-2003 10:28] ;;1.0;CLINICAL PROCEDURES;**21,65**;Apr 01, 2004;Build 1
MDCA01 ;HINES OIFO/DP/BT/JT - HL7 Build Admit/Visit Message (A01);15-AUG-2007 ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA02 ;HINES OIFO/DP/BT/JT - 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/BT/JT - 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/BT/JT - HL7 Build Update Patient Info (A08) Message;21-JUN-2007 ;;1.0;CLINICAL PROCEDURES;**16,12,23**;Apr 01, 2004;Build 281
MDCA11 ;HINES OIFO/DP/BT/JT - HL7 Build Cancel Admit/Visit Notice (A11) Message;21-JUN-2007 ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA12 ;HINES OIFO/DP/BT/JT - HL7 Build Cancel Transfer (A12) Message;21-JUN-2007 ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCA13 ;HINES OIFO/DP/BT/JT - HL7 Build Cancel Discharge/Visit End (A13) Message;21-JUN-2007 ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCDET ;HOIFO/NCA - HL7 Build ADT Axx Messages;10 Aug 2007 ;;1.0;CLINICAL PROCEDURES;**16,12**;Apr 01, 2004;Build 318
MDCEVN ;HINES OIFO/DP/BT/JT - Wrapper to create HL7 EVN segment;30 May 2006 ;;1.0;CLINICAL PROCEDURES;**16,12,23**;Apr 01, 2004;Build 281
MDCIOD ;HINES OIFO - CLIO backend driver;02 Feb 2005 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCIOV ;HINES OIFO - CLIO backend driver (Continuation);02 Sep 2005 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCLIO ;HIOFO/NCA - Cleanup Disabled Studies ;4/19/01 11:52 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCLIOV ;HIOFO/NCA - CLIO Vitals Link;15 Nov 2010 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCLN ;HIPF/DP - CliO backend driver;02 Feb 2005 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCLN1 ;HIPF/DP - CLIO backend driver (Continuation);02 Sep 2005 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCONUTL ; WOIFO/KLM - CP Conversion Utility ;7/11/18 1:08pm ;;1.0;CLINICAL PROCEDURES;**65**;Apr 01, 2004;Build 280
MDCPID ;HINES OIFO/DP/BJ - Wrapper for PID Segment Builder;23 Nov 2005 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCPMESQ ;HINES OIFO/BJ - CP Outbound message queue routine.;30 Jul 2007 ;12/10/15 10:58am ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCPV1 ;HINES OIFO/DP/BJ - Build Segment PV1 Routine;17 Aug 2007 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCPV1 ;HINES OIFO/DP/BJ - CP Outbound message record maintenance routine.;26CT 2011 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCUTL ;HINES OIFO/DP/BT/JT - HL7 Message Utilities;07 June 2007 ;;1.0;CLINICAL PROCEDURES;**16**;Apr 01, 2004;Build 280
MDCVT ; HOIFO/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
MDCVTU ; HOIFO/NCA - Medicine Conversion Verification Utility ; [08-28-2003 11:34] ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
MDESVCL ;HOIFO/NCA - Collect Device Data ;8:34 AM 9 Jun 2005 ;;1.0;CLINICAL PROCEDURES;**20**;Apr 01, 2004;Build 9
MDESRT ;HOIFO/NCA - ELECTRONIC SIGNATURE PRINT ;12/21/04 09:24
Routine Descriptions

MDHL7A  ; MDHL7A - Routine to Decode HL7 for CP ; 05/21/09  15:57
 MDHL7B  ; MDHL7B - Bi-directional interface routine ; 7/23/01  11:41
 MDHL7BH ; MDHL7BH - Bi-directional Interface (HL7) routine ;15 Jun 2018 12:46 PM
 MDHL7D  ; MDHL7D - Braun, Fresenius Dialysis ; 06/08/00
 MDHL7E  ; MDHL7E - Olympus/ChEore/Pentax Endoscopy ; 06/08/00
 MDHL7K1 ; MDHL7K1 - KenitDx Interface ; 06/08/00
 MDHL7K2 ; MDHL7K2 - HP EnConcert Echo ; 06/08/00
 MDHL7M1 ; MDHL7M1 - Muse EKG ; [02-06-2002 16:13]
 MDHL7M3 ; MDHL7M3 - IMAGE VAULT INTERFACE ; 08/08/07
 MDHL7U  ; MDHL7U - Utilities for CP ; 7/23/01  11:41
 MDHL7U1 ; MDHL7U1 - Utilities for CP PROCESSING OBX ; 7/26/00
 MDHL7U2 ; MDHL7U2 - Utilities for CP PROCESSING OBX text ; 7/26/00
 MDHL7U3 ; MDHL7U3 - Utilities for CP to process HL7 messages ; 02/17/10  15:59
 MDHL7X  ; MDHL7X - Generate HL7 Error Message for MEDICINE ; [05-07-2001 10:38]
 MDHL7XXX; MDHL7XXX - Loopback device for CP ; 04-14-2003 10:51
 MDIPS60 ; MDIPS60 - Install Code for MD*1.0*60 ; 18 Apr 2018 7:38 AM
 MDKRPC2 ; MDKRPC2 - RPC Calls (Cont.) ; 11/27/07  09:42
 MDKRPC4 ; MDKRPC4 - RPC Calls (Cont.) ; 11/27/07  09:42
 MDKUTL  ; MDKUTL - Renal Utilities ; 11/29/07  14:45
 MDKUTLR; MDKUTLR - Renal Utilities RPC; 11/29/07  14:45
 MDPOST04 ; MDPOST04 - Post Init ; 2/18/04  11:39
 MDPOST06 ; MDPOST06 - Post Init ; 2/7/07  16:19
 MDPOST1 ; MDPOST1 - Build CP DEFINITION file (#702.01) - Optional Post Init ; [12-04-2002 13:06]
Routine Descriptions

;1.0;CLINICAL PROCEDURES;;Apr 01, 2004
MDRPCW ; HOIFO/DP/NCA - Billing Widget ;10/3/05 12:17
;1.0;CLINICAL PROCEDURES;**6,29**;Apr 01, 2004;Build 22
MDRPCU ; HOIFO/DP - Object RPC Utilities ; [05-23-2003 10:16]
;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 TMENCOUNTER Object ;2/16/10 16:17
;1.0;CLINICAL PROCEDURES;**6,21,20,29**;Apr 01, 2004;Build 22
MDRPCWU ;HOIFO/NCA - CPT Code Query ;2/16/10 16:17
;1.0;CLINICAL PROCEDURES;**21,29**;Apr 01, 2004;Build 22
MDSTUTU ; HOIFO/NCA - Print List of Document Titles Needed ;10/21/04 13:44
;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 1
MDSTUDL ; HOIFO/NCA - Clinical Procedures Studies List ;10/26/05 11:46
;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDSTUDW ; HOIFO/NCA - Print a List of Procedures With Incomplete Workload ;3/2/09 10:00
;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 30
MDTERM ; HINES OIFO/DP - Terminology Utilities;04 Jan 2006
;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
MDUXML ; HOIFO/WAA - Utilities for XML text ; 7/26/00
;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDUXMLM ; HOIFO/WAA - Utilities for XML text ; 7/26/00
;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
MDUXMLUX ; 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
MDWCHK ; HOIFO/NCA - Create CP Studies for Existing Procedures ;12/13/07 15:52
;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
MDWORC ; HOIFO/NCA - Main Routine to Decode HL7 from Consult ;1/8/08 15:00
;1.0;CLINICAL PROCEDURES;**14**;Apr 01, 2004;Build 20
MDWORSR ; 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
MDWSTUP ; HOIFO/NCA - Auto Study Check-In Setup ;3/18/08 14:14
;1.0;CLINICAL PROCEDURES;**14,11,37,45**;Apr 01, 2004;Build 1
MDXMLFM ; HOIFO/DP - Fileman -> XML Utilities ; [01-10-2003 09:14]
;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 102
MDXMLFFM1 ; 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.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Number</th>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>702,.01</td>
<td>Pointer to Patient (#2) file</td>
<td>This field contains a pointer to the Patient (#2) file for this study.</td>
</tr>
<tr>
<td>SSN</td>
<td>702,.011</td>
<td>Computed</td>
<td>This field contains the computed value of the patient’s SSN from the Patient (#2) file.</td>
</tr>
<tr>
<td>DOB</td>
<td>702,.012</td>
<td>Computed</td>
<td>This field contains the computed value of the patient’s date of birth from the Patient (#2) file.</td>
</tr>
<tr>
<td>Created Date/Time</td>
<td>702,.02</td>
<td>Date</td>
<td>This field contains the date/time the study was created within the CP User executable.</td>
</tr>
<tr>
<td>Created By</td>
<td>702,.03</td>
<td>Pointer to New Person (#200) file</td>
<td>This field contains the DUZ of the user that created this study.</td>
</tr>
<tr>
<td>CP Definition</td>
<td>702,.04</td>
<td>Pointer to CP Definition (#702.01) file</td>
<td>This field contains a pointer to the CP Definition (#702.01) file of the procedure definition that this study represents.</td>
</tr>
<tr>
<td>Consult Number</td>
<td>702,.05</td>
<td>Free Text 1-20 characters in length</td>
<td>This field contains an IEN of the Consult (#123) file representing the Consult order that is matched up to this study.</td>
</tr>
<tr>
<td>TIU Note</td>
<td>702,.06</td>
<td>Pointer to TIU Document (#8925) file</td>
<td>This field contains a pointer to the TIU Document (#8925) file representing the note that contains the interpretation of this study as well as the links to the associated images.</td>
</tr>
<tr>
<td>Vstring</td>
<td>702,.07</td>
<td>Free Text 1-50 characters in length</td>
<td>This field contains This field contains the vstring. The vstring is in the following format: Visit Type_; Visit Date/Time_; Hospital Location (internal entry number of the visit).</td>
</tr>
<tr>
<td>Field Name</td>
<td>Field Number</td>
<td>Format</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------</td>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Transaction Message</td>
<td>702,.08</td>
<td>Free Text 1-80 characters in length</td>
<td>Contains the message returned from the VistA Imaging API's for storing the images on the server.</td>
</tr>
<tr>
<td>Transaction Status</td>
<td>702,.09</td>
<td>Set: 0 - New 1 - Submitted 2 - Error 3 - Complete</td>
<td>This field contains the status of this study.</td>
</tr>
<tr>
<td>Error Messages (multiple)</td>
<td>702.091,.01</td>
<td>Number between 1-9999, 0 decimal digits</td>
<td>Error message number.</td>
</tr>
<tr>
<td>Date Received</td>
<td>702.091,.02</td>
<td>Date</td>
<td>Date and time this error message was generated.</td>
</tr>
<tr>
<td>Received From</td>
<td>702.091,.03</td>
<td>Free Text 1-30 characters in length</td>
<td>Where the error was generated.</td>
</tr>
<tr>
<td>Message</td>
<td>702.091,.09</td>
<td>Free Text 1-150 characters in length</td>
<td>Text of the error message.</td>
</tr>
<tr>
<td>Image (multiple)</td>
<td>702.1,.01</td>
<td>Number between 1-999, 0 decimal digits</td>
<td>Index of attached image for this study.</td>
</tr>
<tr>
<td>Type</td>
<td>702.1,.02</td>
<td>Set: I - Instrument data U - User supplied file</td>
<td>Type of attachment to be processed.</td>
</tr>
<tr>
<td>Result Report</td>
<td>702.1,.03</td>
<td>Pointer to CP Result Report (#703.1) file</td>
<td>Pointer to the CP Result Report (#703.1) file containing the attachment from the instrument.</td>
</tr>
<tr>
<td>Status</td>
<td>702.1,.09</td>
<td>Set: 0 - Submitted to server 1 - Error in submission 2 - Error in filing 3 - Copied to server</td>
<td>Status of this image.</td>
</tr>
<tr>
<td>UNC</td>
<td>702.1,.1</td>
<td>Free Text 1-245 characters in length</td>
<td>Contains the Universal naming Convention (UNC) for this attachment.</td>
</tr>
<tr>
<td>Submitted to Instrument</td>
<td>702,.11</td>
<td>Pointer to CP Instrument (#702.09) file</td>
<td>Points to the instrument definition that this study was submitted to at the time of check-in.</td>
</tr>
</tbody>
</table>
### Field List and Related Information

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Number</th>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument Order Number</td>
<td>702,.12</td>
<td>Free Text 1-22 characters in length</td>
<td>Contains the unique order number for this study that is sent to the bi-directional instrument.</td>
</tr>
<tr>
<td>Visit</td>
<td>702,.13</td>
<td>Pointer to Visit (#9000010) file</td>
<td>This is the Visit number returned from PCE. Reference 1A# 1902.</td>
</tr>
<tr>
<td>Scheduled Date/Time</td>
<td>702,.14</td>
<td>Date</td>
<td>This field contains the date/time when the HL7 message should be sent by CP to the device for this CP transaction.</td>
</tr>
<tr>
<td>Conversion ID Reference</td>
<td>702,.3</td>
<td>Free text 1-30 characters in length</td>
<td>This field is the Reference 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.</td>
</tr>
<tr>
<td>Image Count</td>
<td>702,.991</td>
<td>Computed</td>
<td>Computed field to return the number of images associated with this study.</td>
</tr>
</tbody>
</table>

---

1 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.
2 Patch MD*1.0*14  March 2008  Field added to support the auto study check-in with scheduled appointment date/time.
3 Patch MD*1.0*5  August 2006  Field added.
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.

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

1 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.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Number</th>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>702.01,.01</td>
<td>Free Text 3-30 characters in length</td>
<td>This field contains the name of 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.</td>
</tr>
<tr>
<td>Treating Specialty</td>
<td>702.01,.02</td>
<td>Pointer to Facility Treating Specialty (#45.7) file</td>
<td>This field defines the specialty that this procedure falls under.</td>
</tr>
<tr>
<td>Require External Data</td>
<td>702.01,.03</td>
<td>Set: 0 - No 1 - Yes</td>
<td>Setting this field to Yes will force a consult for this procedure to be processed via the CP User executable for matching whether or not there are instruments associated with it.</td>
</tr>
<tr>
<td>Default TIU Note</td>
<td>702.01,.04</td>
<td>Pointer to TIU Document Definition (#8925.1) file</td>
<td>This field contains a TIU Note Title to use as the default when CP creates a note for interpretation for this procedure.</td>
</tr>
<tr>
<td>Hospital Location</td>
<td>702.01,.05</td>
<td>Pointer to Hospital Location (#44) file</td>
<td>This is the location that will be used when creating the TIU Note for interpretation.</td>
</tr>
<tr>
<td>Processing Application</td>
<td>702.01,.06</td>
<td>Set: 1 - Default 2 – Hemodialysis</td>
<td>This field is used to indicate if this is a Hemodialysis procedure 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 the Hemodialysis application.</td>
</tr>
<tr>
<td>Auto Submit</td>
<td>702.01,.07</td>
<td>Set: 0 - No 1 - Yes</td>
<td>This field only applies to bi-directional instruments. It is used to indicate whether or not the</td>
</tr>
</tbody>
</table>

1 Patch MD*1.0*6 May 2008 Field added to the CP Definition file.
<table>
<thead>
<tr>
<th>External Data Directory</th>
<th>702.01,.08</th>
<th>Free Text 3-150 characters in length</th>
<th>This field contains a reference to a network share where user supplied attachments are located for this procedure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>702.01,.09</td>
<td>Set: 0 - No 1 - Yes</td>
<td>Yes/No to indicate active procedures that can be linked to Consults.</td>
</tr>
<tr>
<td>Instrument (multiple)</td>
<td>702.011,.01</td>
<td>Pointer to CP Instrument (#702.09) file</td>
<td>Contains a pointer to an instrument that generates results for this procedure.</td>
</tr>
<tr>
<td><strong>Processed Result</strong></td>
<td>702.01,.12</td>
<td>Set: 0 - Final Result 1 - Multiple Results 2 – Cumulative Result</td>
<td>This field is a flag which indicates whether a final result, multiple results, or cumulative result is associated with this procedure.</td>
</tr>
</tbody>
</table>

---

1 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.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Number</th>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>702.09,.01</td>
<td>Free Text 3-30 characters in length</td>
<td>Name or mnemonic of instrument. Used by vendor in HL7 message header.</td>
</tr>
<tr>
<td>Notification Mailgroup</td>
<td>702.09,.02</td>
<td>Pointer to Mail Group (#3.8) file</td>
<td>Mail group that will receive error messages and other notifications dealing with this device from the interface routines.</td>
</tr>
<tr>
<td>Description</td>
<td>702.09,.03</td>
<td>Free Text 1-50 characters in length</td>
<td>This field contains a short informational description for the instrument.</td>
</tr>
<tr>
<td>Delete when Submitted</td>
<td>702.09,.05</td>
<td>Set: 0 - No 1 - Yes</td>
<td>Select Yes if you want files created by this instrument deleted once they are successfully copied to the VistA Imaging RAID. Deletion will be performed by the VistA Imaging application.</td>
</tr>
<tr>
<td>Printable Name</td>
<td>702.09,.06</td>
<td>Free Text 3-30 characters in length</td>
<td>Name of instrument that is printed on the reports, etc.</td>
</tr>
<tr>
<td>Default File Ext</td>
<td>702.09,.07</td>
<td>Free Text (e.g., .txt)</td>
<td>Default file extension for vendor instrument reports (e.g., .doc, .pdf).</td>
</tr>
<tr>
<td>Serial Number</td>
<td>702.09,.08</td>
<td>Free Text 1-50 characters in length</td>
<td>Vendor serial number of the instrument (for reference only).</td>
</tr>
<tr>
<td>Active</td>
<td>702.09,.09</td>
<td>Set: 0 - No 1 - Yes</td>
<td>Whether or not the instrument is active on the network.</td>
</tr>
<tr>
<td>Processing Routine</td>
<td>702.09,.11</td>
<td>Free Text 1-8 characters in length</td>
<td>MUMPS routine used to process interface information.</td>
</tr>
<tr>
<td>Processing Code</td>
<td>702.09,.12</td>
<td>Set: M - Medicine C - CP V. 1.0 B - Both</td>
<td>Where data is to be processed: M - Medicine C - Clinical Procedures B - Both</td>
</tr>
<tr>
<td>Bi-directional</td>
<td>702.09,.13</td>
<td>Set: 0 - No 1 - Yes</td>
<td>This field indicates whether or not this device can accept HL7 messages from VistA.</td>
</tr>
<tr>
<td>IP Address</td>
<td>702.09,.14</td>
<td>Free Text 7-15 characters in length</td>
<td>This field contains the IP address of this instrument.</td>
</tr>
<tr>
<td>Field Name</td>
<td>Field Number</td>
<td>Format</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------</td>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Port</td>
<td>702.09,.15</td>
<td>Number between 1000-99999, 0 decimal digits</td>
<td>This field contains the port number for this instrument.</td>
</tr>
<tr>
<td>HL7 Instrument ID</td>
<td>702.09,.16</td>
<td>Free Text 3-30 characters in length</td>
<td>This is the name of the actual device where the device name can be “SMC St Louis”.</td>
</tr>
<tr>
<td>HL7 Universal Service ID</td>
<td>702.09,.17</td>
<td>Free Text 1-48 characters in length</td>
<td>This field defines what type of procedure the device can perform if the device can perform multiple types of procedures.</td>
</tr>
<tr>
<td>HL7 Logical Link</td>
<td>702.09,.18</td>
<td>Pointer to the HL Logical Link (#870) file</td>
<td>This field contains the HL7 logical link.</td>
</tr>
</tbody>
</table>
| CP - DICOM Interoperability   | 702.09,.19   | Set of Codes | 0: No special action  
1: Use VistA Imaging accession number sss-GMR-nnnnnnnn  
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. |
| ServerExecutable             | 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. |
<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Number</th>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process XML</td>
<td>702.09,.306</td>
<td>Set: 0 - No, 1 - Yes</td>
<td>Enter Yes if this instrument produces XML type data.</td>
</tr>
<tr>
<td>Process XMS</td>
<td>702.09,.307</td>
<td>Set: 0 - No, 1 - Yes</td>
<td>Enter Yes if this instrument produces XMS type data.</td>
</tr>
<tr>
<td>Consult Keep Open</td>
<td>702.09,.401</td>
<td>Set: 0 - No, 1 - Yes</td>
<td>Enter Yes to keep consult note open or No to close consult note.</td>
</tr>
</tbody>
</table>
**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.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Field Number</th>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upload ID</td>
<td>703.1,.01</td>
<td>Free Text 1-30 characters in length</td>
<td>Unique identifier assigned for each upload.</td>
</tr>
<tr>
<td>Patient</td>
<td>703.1,.02</td>
<td>Pointer to Patient (#2) file</td>
<td>Pointer to the Patient (#2) file of the patient uploaded from the result of the instrument.</td>
</tr>
<tr>
<td>Date/Time Performed</td>
<td>703.1,.03</td>
<td>Date</td>
<td>Date/time the procedure was performed on the instrument.</td>
</tr>
<tr>
<td>Instrument</td>
<td>703.1,.04</td>
<td>Pointer to CP Instrument (#702.09) file</td>
<td>Pointer to the CP Instrument (#702.09) file of the instrument that produced these reports.</td>
</tr>
<tr>
<td>Study Reference Number</td>
<td>703.1,.05</td>
<td>Pointer to CP Transaction file (#702)</td>
<td>This field is used as a reference to the transaction.</td>
</tr>
<tr>
<td>HL7 Reference Number</td>
<td>703.1,.06</td>
<td>Free Text 1-30 characters in length</td>
<td>This field is used to keep the IEN 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 VistA Imaging server.</td>
</tr>
<tr>
<td>Status</td>
<td>703.1,.09</td>
<td>Set: U - Unmatched M - Matched</td>
<td>Status of the results: U - Unmatched M - Matched</td>
</tr>
<tr>
<td>Upload Item (multiple)</td>
<td>703.11,.01</td>
<td>Set: 1 - Impression Text 2 - Report Text 3 - Attachment UNC 4 - Attachment URL 5 - UUEncoded Data 6 - DLL 7 - XML Data 8 - XML Style Sheet</td>
<td>This field contains the type of data element that was uploaded from the instrument.</td>
</tr>
<tr>
<td>Attachment UNC</td>
<td>703.11,.02</td>
<td>Free Text 1-240 characters in length</td>
<td>This field contains the Universal Naming Convention (UNC) for this attachment. This indicates where the attachment is located.</td>
</tr>
<tr>
<td>Field Name</td>
<td>Field Number</td>
<td>Format</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>-------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Item Value</td>
<td>703.11,.1</td>
<td>Free Text 1-245 characters in length</td>
<td>If the uploaded item is a single string value, it is stored here.</td>
</tr>
<tr>
<td>Item Text</td>
<td>703.11,.2</td>
<td>Word-Processing</td>
<td>If the uploaded data is multi-lined, it is stored here.</td>
</tr>
</tbody>
</table>
1CP 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.

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

1 Patch MD*1.0*5 August 2006 CP Conversion File #703.9 added.
<p>| Conversion ID | 703.92,.01 | Free Text | This field is the Conversion ID. It is a variable pointer to the Medicine files. This field will store an entry for each Medicine file record converted. This field is a variable pointer to the following files: 691 ECHO 691.1 CARDIAC CATHETERIZATION 691.5 ELECTROCARDIOGRAM (EKG) 691.6 HOLTER 691.7 EXERCISE TOLERANCE TEST 691.8 ELECTROPHYSIOLOGY (EP) 694 HEMATOLOGY 694.5 CARDIAC SURGERY RISK ASSESSMENT 698 GENERATOR IMPLANT 698.1 V LEAD IMPLANT 698.2 A LEAD IMPLANT 698.3 PACEMAKER SURVEILLANCE 699 ENDOSCOPY/CONSULT 699.5 GENERALIZED PROCEDURE/CONSULT 700 PULMONARY FUNCTION TESTS 701 RHEUMATOLOGY |
| Status | 703.92,.02 | Set: CR - Converted Real Mode CT - Converted Test Mode E - Error S - Skipped R - Ready to Convert | 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 |</p>
<table>
<thead>
<tr>
<th>Field</th>
<th>IEN</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New TIU Document IEN</td>
<td>703.92,.03</td>
<td>Free Text</td>
<td>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.</td>
</tr>
<tr>
<td>Lines</td>
<td>703.92,.04</td>
<td>Number</td>
<td>This field contains the line count of the Medicine report that was converted.</td>
</tr>
<tr>
<td>Bytes</td>
<td>703.92,.05</td>
<td>Number</td>
<td>This field contains the number of bytes of the Medicine report that was converted.</td>
</tr>
<tr>
<td>Error Msg</td>
<td>703.92,.1</td>
<td>Free Text</td>
<td>This field stores the error message during the conversion of the Medicine report.</td>
</tr>
</tbody>
</table>
Hemodialysis Access Points File - #704.201

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

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

1 Patch MD*1.0*6 May 2008 File 704.201 added.
**Hemodialysis Study File - #704.202**

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

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

1 Patch MD*1.0*6 May 2008 File 704.202 added.
Hemodialysis Setting File - #704.209

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

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

1 Patch MD*1.0*6  May 2008  File 704.209 added.
## Package Default Definition

<table>
<thead>
<tr>
<th>FILE #</th>
<th>NAME</th>
<th>UP</th>
<th>SEND</th>
<th>DATA</th>
<th>DATE</th>
<th>SEC.</th>
<th>COMES</th>
<th>SITE</th>
<th>RSLV</th>
<th>OVER</th>
<th>USER</th>
</tr>
</thead>
<tbody>
<tr>
<td>702</td>
<td>CP TRANSACTION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>702.001</td>
<td>CP TRANSACTION_TIU_HISTORY</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>702.01</td>
<td>CP DEFINITION</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>702.09</td>
<td>CP INSTRUMENT</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>703.1</td>
<td>CP RESULT REPORT</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>ADD</td>
<td>NO</td>
<td></td>
<td></td>
<td>NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>703.9</td>
<td>CP CONVERSION</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>704.201</td>
<td>HEMODIALYSIS ACCESS POINTS</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>704.202</td>
<td>HEMODIALYSIS STUDY</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>704.209</td>
<td>HEMODIALYSIS SETTINGS</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1 Patch MD*1.0*6 May 2008 Default definition added for 702.001.
2 Patch MD*1.0*5 August 2006 Default definitions added for 703.9.
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.
INPUT PARAMETER: OPTION                PARAMETER TYPE: LITERAL
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
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
GETWP     ENT,PAR,INST
SETPAR   ENT,PAR,INST,VAL
SETLST   ENT,PAR,,.VAL  (Uses instance 0-n)
SETWP     ENT,PAR,,.VAL
DELPAR   ENT,PAR,INST  
DELLST   ENT,PAR  

INPUT PARAMETER: ENTITY                       PARAMETER TYPE: LITERAL  
MAXIMUM DATA LENGTH: 20                       REQUIRED: NO  
SEQUENCE 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:  
USR    | Current value of DUZ  
DIV    | Current value of DUZ(2)  
SYS    | System (domain)  
PKG    | Package to which the parameter belongs  

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 named spaced 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*).  

INPUT PARAMETER: INST                           PARAMETER TYPE: LITERAL  
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
AVAILABILITY: RESTRICTED
RETURN VALUE TYPE: GLOBAL ARRAY
WORD WRAP ON: TRUE

NAME: MD TMDPROCEDURE
ROUTINE: MDRPCOD
AVAILABILITY: RESTRICTED
RETURN VALUE TYPE: GLOBAL ARRAY
WORD WRAP ON: TRUE

NAME: MD TMDRECORDID
ROUTINE: MDRPCOR
AVAILABILITY: RESTRICTED
RETURN VALUE TYPE: GLOBAL ARRAY
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.

INPUT PARAMETER: DDNUM
PARAMETER TYPE: LITERAL
MAXIMUM DATA LENGTH: 10
REQUIRED: NO
SEQUENCE NUMBER: 2
DESCRIPTION:
Contains the Data Dictionary number of the item being manipulated.

INPUT PARAMETER: IENS
PARAMETER TYPE: LITERAL
MAXIMUM DATA LENGTH: 20
REQUIRED: NO
SEQUENCE NUMBER: 3
DESCRIPTION:
Contains the IENS of the record being manipulated.
INPUT PARAMETER: FLD  PARAMETER TYPE: LITERAL
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  REQUIRED: NO
SEQUENCE 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  TAG:  RPC
ROUTINE:  MDRPCOT  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.
INPUT PARAMETER:  DATA  PARAMETER TYPE:  LITERAL
MAXIMUM DATA LENGTH:  250  REQUIRED:  NO
SEQUENCE 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

NAME:  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:

1 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.

DFN - (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^^^^^^^269587
   ^TMP("MDRPCW",539023945,3) = 417.1^PULMON ARTERY ANEURYSM^^^^^^^^269688
   ^TMP("MDRPCW",539023945,4) = 417.8^PULM CIRCULAT DIS NEC^^^^^^^269690
   ^TMP("MDRPCW",539023945,5) = 417.9^PULM CIRCULAT DIS NOS^^^^^^^269691
   ^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
^TMP("MDRPCW",539023945,14) = 162.3^MAL NEO UPPER LOBE
^TMP("MDRPCW",539023945,15) = 235.7^UNC BEHAV NEO LUNG
^TMP("MDRPCW",539023945,16) = 875.0^OPEN WOUND OF CHEST
^TMP("MDRPCW",539023945,17) = 162.9^MAL NEO BRONCH/LUNG NOS
^TMP("MDRPCW",539023945,18) = 786.6^CHEST SWELLING/MASS/LUMP
^TMP("MDRPCW",539023945,19) = 518.89^OTHER DISEASE OF LUNG, NEC
^TMP("MDRPCW",539023945,20) = ^BRONCHOSCOPY
^TMP("MDRPCW",539023945,21) = 012.20^ISOL TRACHEAL TB-
^TMP("MDRPCW",539023945,22) = 012.22^ISOLAT TRACHEAL TB-EXAM UNKN
^TMP("MDRPCW",539023945,23) = 012.23^ISOLAT TRACHEAL TB-MICRO DX
^TMP("MDRPCW",539023945,24) = 012.24^ISOL TRACHEAL TB-CULT DX
^TMP("MDRPCW",539023945,25) = 748.61^CONGEN BRONCHIECTASIS
^TMP("MDRPCW",539023945,26) = 011.50^TB BRONCHIECTASIS
^TMP("MDRPCW",539023945,27) = 784.1^THROAT PAIN
^TMP("MDRPCW",539023945,28) = 784.8^HEMORRHAGE FROM THROAT
^TMP("MDRPCW",539023945,29) = 034.0^STREP SORE THROAT
^TMP("MDRPCW",539023945,30) = 466.11^AC. BRONCH/RESP SYNCYT V
^TMP("MDRPCW",539023945,31) = 530.10^ESOPHAGITIS, UNSP.

> D ^RPC^MDRPCW(.RESULTS,"SCDISP",17,212)

   @RESULTS@(n)="Lines of text"

> D ^%G

Global ^TMP("MDRPCW",$J
^TMP("MDRPCW",539023945,1) = Service Connected: 50%
^TMP("MDRPCW",539023945,2) = Rated Disabilities: NONE STATED

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
REQUIRED: YES SEQUENCE NUMBER: 1
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;"AO";0/1;"IR";0/1;"EC";0/1;0/1;"MST";0/1;"HNC";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 = "AO" - 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
ROUTINE: MDRPCW1 RETURN VALUE TYPE: GLOBAL ARRAY
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
REQUIRED: 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 = NOTELST
> 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
I
CS
^TMP("MDKUTL",538992716,3) = 970^PROCEDURE NOTE^OCT 10, 2001@17:11:50^^PROSTHET
I
CS
^TMP("MDKUTL",538992716,4) = 971^PROCEDURE NOTE^OCT 10, 2001@17:15:45^^PROSTHET
I
CS
^TMP("MDKUTL",538992716,5) = 972^PROCEDURE NOTE^OCT 10, 2001@17:16:34^^PROSTHET
I
CS
^TMP("MDKUTL",538992716,6) = 974^PROCEDURE NOTE^OCT 11, 2001@10:56:03^^PROSTHET
I
CS
^TMP("MDKUTL",538992716,7) = 975^PROCEDURE NOTE^OCT 11, 2001@12:50:29^^PROSTHET
I
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
Exported Options

CT 10, 2001@17:08:36

^TMP("TIUVIEW",538992716,3) = AUTHOR: MDPROVIDER,ONE EXP COSIGNER:

^TMP("TIUVIEW",538992716,4) = URGENCY:

STATUS:

COMPLETED

^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

NAME: MD TMWDIDGET

TAG: RPC

ROUTINE: MDRPCOW

RETURN VALUE TYPE: GLOBAL ARRAY

AVAILABILITY: RESTRICTED

WORD WRAP ON: TRUE

VERSION: 1

NAME: MDK GET VISTA DATA

TAG: RPC

ROUTINE: MDKRPC1

RETURN VALUE TYPE: ARRAY

AVAILABILITY: RESTRICTED

INACTIVE: ACTIVE

INPUT PARAMETER: OPTION

MAXIMUM DATA LENGTH: 8

REQUIRED: YES

SEQUENCE NUMBER: 1

DESCRIPTION:

This is the routine tag that will be called to retrieve the data.

INPUT PARAMETER: DATA

PARAMETER TYPE: LITERAL

MAXIMUM DATA LENGTH: 50

REQUIRED: YES

SEQUENCE 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 -
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
ROUTINE: MDKRPC2
AVAILABILITY: RESTRICTED
RETURN VALUE TYPE: GLOBAL ARRAY
WORD WRAP ON: TRUE

NAME: MDK UTILITY
ROUTINE: MDKUTLR
AVAILABILITY: RESTRICTED
RETURN VALUE TYPE: GLOBAL ARRAY
WORD WRAP ON: TRUE
Parameter Definitions

NAME: MD ALLOW EXTERNAL ATTACHMENTS
   DISPLAY TEXT: Allow non-instrument attachments
   MULTIPLE VALUED: No
   VALUE DATA TYPE: yes/no
   VALUE TERM: Allowed
   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

NAME: MD APPOINT END DATE
   DISPLAY TEXT: End Date for Encounter Appointments
   MULTIPLE VALUED: No
   VALUE DATA TYPE: numeric
   VALUE TERM: Days
   VALUE DOMAIN: 0:365
   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

NAME: MD APPOINT START DATE
   DISPLAY TEXT: Start Date for Encounter Appointments
   MULTIPLE VALUED: No
   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 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

NAME: MD COMPL PROC DISPLAY DAYS
   DISPLAY TEXT: Completed Proc Display Days
   MULTIPLE VALUED: No
   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 the completed procedure requests will be
   displayed in the CP Check-in screen.
   PRECEDENCE: 1

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

---

1 Patch MD*1.0*6 May 2008  Parameter Definitions added.
2 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

DESCRIPTION:
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 TERM: Procedure
VALUE DATA TYPE: pointer
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 DATA TYPE: pointer
INSTANCE DOMAIN: 702.01
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

NAME: MD CLINIC ASSOCIATION
DISPLAY TEXT: MD Clinic Association
MULTIPLE VALUED: Yes
INSTANCE TERM: Sequence
VALUE TERM: Clinic;Procedure Association Value
VALUE DATA TYPE: free text
VALUE HELP: Enter the sequence to associate a clinic and procedure.
INSTANCE DATA TYPE: numeric
INSTANCE DOMAIN: 1:9999

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

---

1 Patch MD*1.0*11 June 2009 Parameter Definition added
Exported Options

**NAME: MD CRC BYPASS**
- **DISPLAY TEXT:** Bypass CRC Checking
- **MULTIPLE VALUED:** No
- **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)
- **MULTIPLE VALUED:** No
- **PROHIBIT EDITING:** No
- **VALUE TERM:** Days
- **VALUE DATA TYPE:** numeric
- **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

**NAME: MD DAYS TO RETAIN COM STUDY**
- **DISPLAY TEXT:** Days to Retain Completed Study
- **MULTIPLE VALUED:** No
- **PROHIBIT EDITING:** 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 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

**NAME: MD DAYS TO RET COM MULT**
- **DISPLAY TEXT:** Days to Retain Completed Multiple Study
- **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 after check-in date/time to display the study

---

1 Patch MD*1.0*6  May 2008 Parameter Definition added.
2 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.

**NAME:** MD DEVICE SURVEY TRANSMISSION  
**DISPLAY TEXT:** Device Survey Transmission  
**MULTIPLE VALUED:** No  
**VALUE TERM:** 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.

**NAME:** MD FILE EXTENSIONS  
**DISPLAY TEXT:** Imaging File Types  
**MULTIPLE VALUED:** Yes  
**INSTANCE TERM:** Extension  
**VALUE TERM:** File type  
**VALUE DATA TYPE:** free text  
**VALUE DOMAIN:** 1:80  
**VALUE HELP:** Enter a description of this file type  
**INSTANCE DATA TYPE:** free text  
**INSTANCE DOMAIN:** 2:10  
**INSTANCE HELP:** Enter the extension of the file type with a '.

**NAME:** MD GATEWAY  
**DISPLAY TEXT:** CP Gateway Parameters  
**MULTIPLE VALUED:** Yes  
**INSTANCE TERM:** Parameter Name  
**VALUE TERM:** Parameter Value  
**VALUE DATA TYPE:** free text  
**VALUE DOMAIN:** 1:255  
**INSTANCE DATA TYPE:** free text  
**INSTANCE DOMAIN:** 1:255

**NAME:** MD GET HIGH VOLUME  
**DISPLAY TEXT:** Get High Volume  
**MULTIPLE VALUED:** Yes  
**INSTANCE TERM:** Procedure  
**VALUE TERM:** Get String  
**VALUE DATA TYPE:** free text  
**INSTANCE DATA TYPE:** pointer  
**INSTANCE DOMAIN:** 702.01  
**INSTANCE HELP:** Enter a high volume procedure.

**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.)

**DESCRIPTION:**  
Example string: 1;0

---

1 Patch MD*1.0*21 June 2010 Parameter Definition added.
NAME: **MD HFS SCRATCH**

DISPLAY TEXT: VistA Scratch HFS Directory
MULTIPLE VALUED: No
VALUE DATA TYPE: free text
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**

DISPLAY TEXT: Imaging Network Share
MULTIPLE VALUED: No
VALUE DATA TYPE: free text
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

NAME: **MDK APPLICATION INSTALL**

DISPLAY TEXT: MDK Application Install
MULTIPLE VALUED: Yes
INSTANCE TERM: Installation Distribution Info
VALUE TERM: Distribution Info Value
VALUE DATA TYPE: free text
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
VALUE DATA TYPE: yes/no
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

NAME: **MD MEDICINE CONVERTED**

DISPLAY TEXT: Medicine Package Converted
1 Patch MD*1.0*6 May 2008 Parameter Definition added.
2 Patch MD*1.0*5 August 2006 Parameter Definition added.
MULTIPLE VALUED: No
PROHIBIT EDITING: No
DESCRIPTION:
Used to determine if the Medicine Package has been converted.
PRECEDENCE: 1
ENTITY FILE: SYSTEM

**NAME:** MD NOT ADMN CLOSE MUSE NOTE
**DISPLAY TEXT:** NOT ADMN Close Muse Note
MULTIPLE VALUED: No
PROHIBIT EDITING: 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
DESCRIPTION:
This parameter contains a message to display to the users when the Clinical Procedures application is offline.
PRECEDENCE: 1
ENTITY FILE: SYSTEM

**NAME:** MD OLYMPUS 7
**DISPLAY TEXT:** MD OLYMPUS 7
MULTIPLE VALUED: No
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
DESCRIPTION:
This parameter controls access to the Clinical Procedures package.
PRECEDENCE: 1
ENTITY FILE: SYSTEM

**NAME:** MD USE APPOINTMENT
**DISPLAY TEXT:** Use Appointment Location
MULTIPLE VALUED: 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.

---

1 Patch MD*1.0*21 June 2010 Parameter Definition added.
2 Patch MD*1.0*11 June 2009 Parameter Definition added.
3 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

1NAME: 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

2NAME: MD USE NOTE
DISPLAY TEXT: Use Note
VALUE TERM: Yes/No 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
DISPLAY TEXT: CP User Defaults
MULTIPLE VALUED: Yes INSTANCE TERM: Parameter setting
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
DISPLAY TEXT: 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: 1:30
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:0.0.0.0).
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

---

1 Patch MD*1.0*14 March 2008 Parameter Definition added.
2 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** ITEM TEXT: Instrument Device Client
TYPE: subscriber CREATOR: ACKERMAN, NIEN-CHIN
PACKAGE: MEDICINE
DESCRIPTION: Subscriber protocol for sending data to Vista from clinical instruments.
TIMESTAMP: 59276,54156 RECEIVING APPLICATION: MCAR-INST
TRANSACTION MESSAGE TYPE: ORU EVENT TYPE: R01
PROCESSING ID: P LOGICAL LINK: MCAR INST
VERSION ID: 2.3 RESPONSE MESSAGE TYPE: ACK
PROCESSING ROUTINE: D MDHL7A SENDING FACILITY REQUIRED?: NO
RECEIVING FACILITY REQUIRED?: NO

NAME: **MCAR Device Server** ITEM TEXT: Instrument HL7 Event Driver
TYPE: event driver CREATOR: ACKERMAN, NIEN-CHIN
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 RECEIVING FACILITY REQUIRED?: NO
SUBSCRIBERS: MCAR Device Client

NAME: **MCAR ORM CLIENT** TYPE: subscriber
CREATOR: ACKERMAN, NIEN-CHIN RECEIVING APPLICATION: INST-MCAR
EVENT TYPE: O02 RESPONSE MESSAGE TYPE: ORR
SENDING FACILITY REQUIRED?: NO RECEIVING FACILITY REQUIRED?: NO
SECURITY 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: O01
VERSION ID: 2.3
SUBSCRIBERS: MCAR ORM CLIENT

**NAME: MD RECEIVE GMRC**
ITEM TEXT: Clinical Procedures receives messages from Consult
TYPE: action CREATOR: ACKERMAN, NIEN-CHIN
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
TYPE: action CREATOR: ACKERMAN, NIEN-CHIN
PACKAGE: CLINICAL PROCEDURES
DESCRIPTION: This protocol receives order messages from CPRS. (IA 3135)
ENTRY ACTION: D EN^MDWOR(.XQORMSG) TIMESTAMP: 60934,38793

---

1 Patch MD*1.0*14 March 2008 Protocols added to support the auto study check-in.
HL7 Application Parameters

NAME: **INST-MCAR**
- COUNTRY CODE: USA
- HL7 FIELD SEPARATOR: |

NAME: **MCAR-INST**
- FACILITY NAME: VISTA
- COUNTRY CODE: USA
- HL7 FIELD SEPARATOR: |
**HL Logical Links**

**NODE: MCAR INST**
- **DEVICE TYPE:** Single-threaded Server
- **AUTOSTART:** Enabled
- **TASK NUMBER:** 526320
- **QUEUE SIZE:** 100
- **RE-TRANSMISSION ATTEMPTS:** 3
- **ACK TIMEOUT:** 60
- **TCP/IP PORT:** 9026
- **PERSISTENT:** NO
- **IN QUEUE BACK POINTER:** 331
- **OUT QUEUE BACK POINTER:** 220

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<th>STATE: Reading</th>
<th>TIME STARTED: MAR 04, 2004@06:46:17</th>
<th>SHUTDOWN LLP ?: NO</th>
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<td>TCP/IP SERVICE TYPE: CLIENT (SENDER)</td>
<td>STARTUP NODE: DEV:ISC4A1</td>
<td></td>
</tr>
<tr>
<td>TCP/IP PORT: 9026</td>
<td>PERSISTENT: NO</td>
<td>IN QUEUE FRONT POINTER: 331</td>
<td>OUT QUEUE FRONT POINTER: 210</td>
</tr>
</tbody>
</table>

**NODE: MCAR OUT**
- **DEVICE TYPE:** Non-Persistent Client
- **AUTOSTART:** Enabled
- **TASK NUMBER:** 529066
- **QUEUE SIZE:** 100
- **READ TIMEOUT:** 60
- **EXCEED RE-TRANSMIT ACTION:** ignore
- **TCP/IP PORT:** 9028
- **PERSISTENT:** NO
- **IN QUEUE BACK POINTER:** 202
- **OUT QUEUE BACK POINTER:** 206

<table>
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<th>LLP TYPE: TCP</th>
<th>STATE: Openfail</th>
<th>TIME STARTED: MAR 04, 2004@06:45:47</th>
<th>SHUTDOWN LLP ?: NO</th>
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<tbody>
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<td>RE-TRANSMISSION ATTEMPTS: 3</td>
<td>ACK TIMEOUT: 60</td>
<td>TCP/IP ADDRESS: 10.3.17.157</td>
<td>TCP/IP SERVICE TYPE: CLIENT (SENDER)</td>
</tr>
<tr>
<td>TCP/IP PORT: 9028</td>
<td>PERSISTENT: NO</td>
<td>IN QUEUE FRONT POINTER: 202</td>
<td>OUT QUEUE FRONT POINTER: 202</td>
</tr>
</tbody>
</table>
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 TMOUTPUT  
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 TMOUTPUT  
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

NAME: **MD AUTO CHECK-IN SETUP**  
MENU TEXT: Auto Study Check-In Setup  
TYPE: run routine  
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**  
MENU TEXT: Scheduled Studies  
TYPE: run routine  
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**  
MENU TEXT: Study Check-in  
TYPE: run routine  
PACKAGE: CLINICAL PROCEDURES  
DESCRIPTION: This option is tasked to run daily. It checks-in CP studies

---

1 Patch MD*1.0*14  March 2008  Options added to support the auto study check-in.
for procedures that require multiple encounters such as Hemodialysis, Respiratory Therapy, and Sleep Studies.

ROUTINE: CLINICPT*MDWORKSR
SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: STUDY CHECK-IN

1 NAME: MD HIGH VOLUME PROCEDURE SETUP
MENU TEXT: High Volume Procedure Setup
TYPE: run routine
PACKAGE: CLINICAL PROCEDURES
DESCRIPTION: This option will populate the XPAR Parameters MD GET HIGH VOLUME and MD NOT ADMN CLOSE MUSE NOTE. 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
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
PACKAGE: CLINICAL PROCEDURES
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

2 NAME: MD HEMODIALYSIS USER
MENU TEXT: HEMODIALYSIS USER
TYPE: Broker (Client/Server)
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 TMWDIDGET
RPC: MD TMDNOTE
RPC: MD TMDCIDC
RPC: MD TMDLEX
RPC: MD TMDENCOUNTER
RPC: GMV MANAGER
RPC: MD GATEWAY
RPC: MD TMDSUBMITU
RPC: ORWPT PTINQ
RPC: GMV PTSELECT
RPC: DG SENSITIVE RECORD ACCESS
RPC: DG SENSITIVE RECORD BULLETIN
RPC: MD TMDRECORDID

1 Patch MD*1.0*21 June 2010 Options added to support high volume procedures enhancement.
2 Patch MD*1.0*6 May 2008 Hemodialysis User menu option added.
NAME: **MD STUDIES LIST**

MENU TEXT: Clinical Procedures Studies List  
TYPE: run routine  
PACKAGE: CLINICAL PROCEDURES  
CREATOR: ACKERMAN, NIEN-CHIN  
DESCRIPTION: This option will generate a list of Clinical Procedures studies.  
ROUTINE: EN2^MDSTUDL

NAME: **MDCVT MANAGER**

MENU TEXT: Medicine to CP Conversion Manager  
TYPE: run routine  
PACKAGE: CLINICAL PROCEDURES  
CREATOR: ACKERMAN, NIEN-CHIN  
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.  
PLATFORM: X ACTION PRESENT: YES  
EXIT ACTION: K DDSFILE, DR, DA  
ROUTINE: SETUP^MDCVT

---

1 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
REVIEW: print
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
REVIEW: run routine
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
REVIEW: run routine
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
REVIEW: run routine
PACKAGE: CLINICAL PROCEDURES
DESCRIPTION: This option will verify that the Medicine reports conversion is complete and are in appropriate statuses.

ROUTINE: TOTALS^MDCVT
### MDCVT Error Log

**NAME:** MDCVT Error Log  
**TYPE:** print  
**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:** MDD(703.9, L.: 0  
**FLDS:** [MD CONVERSION ERRORS]  
**BY:** [MD CONVERSION ERRORS]

### MDCVT Conversion Lockout

**NAME:** MDCVT Conversion Lockout  
**TYPE:** run routine  
**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 the 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

### MDCVT Build Conversion List

**NAME:** MDCVT Build Conversion List  
**TYPE:** action  
**PACKAGE:** CLINICAL PROCEDURES  
**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 set 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()

### MD Process No Show/Cancel

**NAME:** MD Process No Show/Cancel Studies  
**TYPE:** run routine  
**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

---

1 Patch MD*1.0*11 June 2009 Add new exported option.
NAME: **MD DEVICE SURVEY TRANSMISSION**

MENU TEXT: MD Device Survey Transmission

TYPE: run routine

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-nnnnnnnnn 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 'CONSULT KEEP OPEN' provides the following functionality:

---

1 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
ITEM: MD PROCONVERT SYNONYM: PR
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
E ACTION PRESENT: YES X 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") ENTRY ACTION: S 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
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") ENTRY ACTION: S MDOPT("PROCONVERT")=""
ROUTINE: CONVERT^MDCONUTL
UPPERCASE MENU TEXT: PROCEDURE TO CLINICAL PROCEDURE
7. Cross-References

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

<table>
<thead>
<tr>
<th>FILE NUMBER</th>
<th>FIELD NUMBER</th>
<th>CROSS REFERENCE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>702</td>
<td>.05</td>
<td>ACON</td>
<td>Used for searches when the user knows the Consult order number.</td>
</tr>
<tr>
<td>.3</td>
<td>ACONV</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>.06</td>
<td>ATIU</td>
<td>Used for searches when the user knows the TIU Note title.</td>
<td></td>
</tr>
<tr>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, the patient name.</td>
<td></td>
</tr>
<tr>
<td>.04</td>
<td>ACP</td>
<td>Used for searches when the user knows the CP definition.</td>
<td></td>
</tr>
<tr>
<td>.11</td>
<td>AINST</td>
<td>Used for searches when the user knows if the study was submitted to Imaging.</td>
<td></td>
</tr>
<tr>
<td>.12</td>
<td>AION</td>
<td>Used to quickly retrieve the study ien from the instrument order number.</td>
<td></td>
</tr>
<tr>
<td>.09</td>
<td>AS</td>
<td>It is a cross reference on the status of the CP study and it is used for quick look up.</td>
<td></td>
</tr>
<tr>
<td>.13</td>
<td>AVISIT</td>
<td>This cross reference is used to make sure that a Visit file entry is not deleted as long as there is an entry.</td>
<td></td>
</tr>
<tr>
<td>.13</td>
<td>AUPNV</td>
<td>This cross reference tells Visit Tracking how many file entries are using (point</td>
<td></td>
</tr>
</tbody>
</table>

1 Patch MD*1.0*6  May 2008  Cross References added.
### Cross-References

<table>
<thead>
<tr>
<th>Subfile 702.091</th>
<th>.01</th>
<th>B</th>
<th>Regular B Cross Reference of the .01 field, error messages.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subfile 702.1</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, image.</td>
</tr>
<tr>
<td><strong>702.01</strong></td>
<td>.02</td>
<td>ASPEC</td>
<td>Used for searches when the user knows the Treating Specialty.</td>
</tr>
<tr>
<td></td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, name of the procedure.</td>
</tr>
<tr>
<td></td>
<td>.01</td>
<td>UC</td>
<td>Used to validate a new entry as unique without case sensitivity.</td>
</tr>
<tr>
<td>Subfile 702.011</td>
<td>.01</td>
<td>AINST</td>
<td>Used for searches when the user knows the name of the instrument.</td>
</tr>
<tr>
<td></td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, instrument.</td>
</tr>
<tr>
<td>FILE NUMBER</td>
<td>FIELD NUMBER</td>
<td>CROSS REFERENCE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>702.09</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, name of the instrument.</td>
</tr>
<tr>
<td></td>
<td>.01</td>
<td>UC</td>
<td>Used to validate a new entry as unique without case sensitivity.</td>
</tr>
<tr>
<td>703.1</td>
<td>.02</td>
<td>ADFN</td>
<td>Used for searches when the user knows the patient name.</td>
</tr>
<tr>
<td></td>
<td>.03</td>
<td>ADTP</td>
<td>Used for searches when the user knows the date/time performed.</td>
</tr>
<tr>
<td></td>
<td>.04</td>
<td>AINST</td>
<td>Used for searches when the user knows the name of the instrument.</td>
</tr>
<tr>
<td></td>
<td>.09</td>
<td>ASTATUS</td>
<td>Sets the status for the Gateway to find studies to process.</td>
</tr>
<tr>
<td></td>
<td>.05</td>
<td>ASTUDYID</td>
<td>This cross reference provides a quick look up by the study reference ID.</td>
</tr>
<tr>
<td>Subfile 703.11</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, upload ID.</td>
</tr>
<tr>
<td>703.9</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, Name.</td>
</tr>
<tr>
<td>Subfile 703.91</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, Medicine File Parameters.</td>
</tr>
<tr>
<td>Subfile 703.92</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, Conversion ID.</td>
</tr>
<tr>
<td></td>
<td>.02</td>
<td>AS</td>
<td>Used for lookup by conversion status.</td>
</tr>
<tr>
<td>704.201</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, PATIENT ID.</td>
</tr>
<tr>
<td>704.202</td>
<td>.09</td>
<td>AS</td>
<td>Used for lookup of active</td>
</tr>
</tbody>
</table>

1 Patch MD*1.0*6 May 2008 Cross References added.
<table>
<thead>
<tr>
<th>Code</th>
<th>.01</th>
<th>B</th>
<th>Regular B Cross Reference of the .01 field, the hemodialysis ID.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.02</td>
<td>C</td>
<td></td>
<td>C Cross Reference of the .02 field, PATIENT record number.</td>
</tr>
<tr>
<td>704.209</td>
<td>.01</td>
<td>B</td>
<td>Regular B Cross Reference of the .01 field, SETTING NAME.</td>
</tr>
</tbody>
</table>
8. Archiving and Purging

There is no archiving capability at this time. Purging is available in the CP Gateway 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).

![Set Maximum Log Entries](image)

**Figure 8-1**
Archiving and Purging
9. Callable Routines

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

---

1 Patch MD*1.0*6  May 2008  Description modified and callable routines added.
Callable Routines

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: MDAPII  (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
Callable Routines

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",$J,file #,record ien_"," 
 ,field ","E")=Data
^TMP("NAMESPACE",$J,subfile #,entry 
 #_","_ 
 record ien field of the 
multiple,"E")=data

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

If no data,
\texttt{^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 (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 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 (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 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
Callable Routines

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 (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 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. 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.

---

1 Patch MD*1.0*14 March 2008 External Relations list removed. Integration Agreements renamed Interface Control Registrations.
The following screen capture shows one way to access the DBA option in FORUM:

Select Software Services Primary Menu Option: DBA
Select DBA Option: IA Integration Control Registrations (Agreements)
Select Integration Control Registrations (Agreements) Option: CUST
Custodial Package Menu
Select Custodial Package Menu Option: ?
1 ACTIVE ICRs by Custodial Package
2 Print ALL ICRs by Custodial Package
3 Supported References Print All
Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.
Select Custodial Package Menu Option: 1 ACTIVE ICRs by Custodial Package
Select PACKAGE NAME: MD CLINICAL PROCEDURES MD
DEVICE: HOME//

Patch MD*1.0*14 March 2008 Screen capture added.
11. Internal Relations

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 TMDEPARAMETER
RPC: MD TMDEPATIENT
RPC: MD TMDEPROCEDURE
RPC: MD TMDERECORDID
RPC: MD TMDETRANSACTION
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 TMDEPARAMETER
RPC: MD TMDEPATIENT
RPC: MD TMDEPROCEDURE
RPC: MD TMDERECORDID
RPC: MD TMDETRANSACTION
RPC: MD TMDUSER
RPC: MD UTILITIES
RPC: MD GATEWAY
UPPERCASE MENU TEXT: MD GUI MANAGER

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 TMWDIDGET
RPC: MD TMNOTE
RPC: MD TMDCIDC
RPC: MD TMDLEX
RPC: MD TMDENCOUNTER
RPC: GMV MANAGER
RPC: MD GATEWAY
RPC: MD TMDSUBMITU

1 Patch MD*1.0*6 May 2008 Description modified.
2 Patch MD*1.0*6 May 2008 Hemodialysis User menu option added.
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.
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 Archiving and Purging, 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.


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.

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.


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.


<table>
<thead>
<tr>
<th>NUMBER</th>
<th>NAME</th>
<th>GLOBAL NAME</th>
<th>DD ACC</th>
<th>RD ACC</th>
<th>WR ACC</th>
<th>DEL ACC</th>
<th>LAYGO ACC</th>
<th>AUD ACC</th>
</tr>
</thead>
<tbody>
<tr>
<td>702</td>
<td>CP TRANSACTION</td>
<td>^MDD(702,</td>
<td>@</td>
<td>@</td>
<td>@</td>
<td>@</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1702.001</td>
<td>CP_TRANSACTION_TIU_HISTORY</td>
<td>^MDD(702.001,</td>
<td>@ @ @</td>
<td>@ @</td>
<td>@ @</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>702.01</td>
<td>CP DEFINITION</td>
<td>^MDS(702.01,</td>
<td>@</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>702.09</td>
<td>CP INSTRUMENT</td>
<td>^MDS(702.09,</td>
<td>@</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>703.1</td>
<td>CP RESULT REPORT</td>
<td>^MDD(703.1,</td>
<td>@</td>
<td>@</td>
<td>@</td>
<td>@</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2703.9</td>
<td>CP CONVERSION</td>
<td>^MDD(703.9,</td>
<td>@</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3704.201</td>
<td>HEMODIALYSIS_ACCESS_POINTS</td>
<td>^MDK(704.201</td>
<td>@</td>
<td>@</td>
<td>@</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>704.202</td>
<td>HEMODIALYSIS_STUDY</td>
<td>^MDK(704.202</td>
<td>@</td>
<td>@</td>
<td>@</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>704.209</td>
<td>HEMODIALYSIS_SETTINGS</td>
<td>^MDK(704.209</td>
<td>@</td>
<td>@</td>
<td>@</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. References.

There are no special reference materials for this package.


There are no special official policies for this package.

---

1 Patch MD*1.0*6 May 2008 File added.
2 Patch MD*1.0*5 August 2006 Files added.
3 Patch MD*1.0*6 May 2008 Files added.
15. Vendor Interfaces

List of Vendor Interfaces

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 Clinical Procedures website (http://vista.med.va.gov/ClinicalSpecialties/clinproc). 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.

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

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

Device Setup Instructions

1 Patch MD*1.0*14  March 2008  Deleted vendor contact information for individual contacts.
2 Patch MD*1.0*14  March 2008  Updated vendor name list.
3 Patch MD*1.0*14  March 2008  Directions for finding a device on the CP website changed.
4 Patch MD*1.0*14  March 2008  Device names unlinked due to unavailable links.
5 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 displays the settings for the Clinivision device in CP Manager.
Figure 15-2

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

<table>
<thead>
<tr>
<th>NODE: MCAR3 INST</th>
<th>LLP TYPE: TCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEVICE TYPE: Single-threaded Server</td>
<td>STATE: Reading</td>
</tr>
<tr>
<td>TIME STARTED: SEP 18, 2002@11:45:27</td>
<td>TASK NUMBER: 321004</td>
</tr>
<tr>
<td>SHUTDOWN LLP ?: NO</td>
<td>QUEUE SIZE: 100</td>
</tr>
<tr>
<td>RE-TRANSMISSION ATTEMPTS: 3</td>
<td>READ TIMEOUT: 60</td>
</tr>
<tr>
<td>ACK TIMEOUT: 60</td>
<td>EXCEED RE-TRANSMIT ACTION: ignore</td>
</tr>
<tr>
<td>TCP/IP PORT: 1030</td>
<td>TCP/IP SERVICE TYPE: SINGLE LISTENER</td>
</tr>
<tr>
<td>PERSISTENT: YES</td>
<td>STARTUP NODE: ROU:614A01</td>
</tr>
<tr>
<td>IN QUEUE BACK POINTER: 1790</td>
<td>IN QUEUE FRONT POINTER: 1790</td>
</tr>
<tr>
<td>OUT QUEUE BACK POINTER: 1789</td>
<td>OUT QUEUE FRONT POINTER: 1789</td>
</tr>
</tbody>
</table>

Figure 15-3

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

<table>
<thead>
<tr>
<th>NAME: MCAR3 Device Client</th>
<th>ITEM TEXT: Instrument HL7 Event Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE: subscriber</td>
<td>CREATOR: ACKERMAN,BILL</td>
</tr>
<tr>
<td>PACKAGE: CLINICAL PROCEDURES</td>
<td></td>
</tr>
<tr>
<td>DESCRIPTION: This Protocol is used by the HL7 Package to send results to Vista from the Clinivision Instrument.</td>
<td></td>
</tr>
<tr>
<td>IDENTIFIER: E</td>
<td>TIMESTAMP: 59039,32152</td>
</tr>
<tr>
<td>SENDING APPLICATION: INST-MCAR</td>
<td>RECEIVING APPLICATION: MCAR-INST</td>
</tr>
<tr>
<td>TRANSACTION MESSAGE TYPE: ORU</td>
<td>EVENT TYPE: R01</td>
</tr>
<tr>
<td>PROCESSING ID: P</td>
<td>LOGICAL LINK: MCAR3 INST</td>
</tr>
<tr>
<td>VERSION ID: 2.3</td>
<td>RESPONSE MESSAGE TYPE: ACK</td>
</tr>
<tr>
<td>PROCESSING ROUTINE: D ^MDHL7A</td>
<td>SENDING FACILITY REQUIRED?: NO</td>
</tr>
<tr>
<td>RECEIVING FACILITY REQUIRED?: NO</td>
<td></td>
</tr>
</tbody>
</table>

Figure 15-4

1Figure 15-4. The device will need to be linked to a procedure in CP Manager.

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?

1 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.

1 The site will need to set up an Olympus type in CPManger.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.

---

**Figure 15-5**

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

---

1 Patch MD*1.0*6  May 2008  Added information about setting up a type for each procedure.
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.

1 The Muse can be set up for different Cardiology procedures such as Holter and Exercise Tolerance 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.

---

1 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.

1Configuration 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.

---

1 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 \(PC \text{ Network name}\)\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:

<table>
<thead>
<tr>
<th>Always Exist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id_text.dbf</td>
</tr>
<tr>
<td>Invalid.dbf</td>
</tr>
<tr>
<td>Text_cfg.dbf</td>
</tr>
<tr>
<td>Xmit_cfg.dbf</td>
</tr>
<tr>
<td>Xmitcom.dbf</td>
</tr>
<tr>
<td>Xmitdf.dbf</td>
</tr>
<tr>
<td>Xmithost.dbf</td>
</tr>
<tr>
<td>Xmitparm.dbf</td>
</tr>
<tr>
<td>Xmitpath.dbf</td>
</tr>
<tr>
<td>Xmitxref.dbf</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Sometimes Exist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Except</td>
</tr>
<tr>
<td>Replace</td>
</tr>
<tr>
<td>User_1.dbf</td>
</tr>
<tr>
<td>User_2.dbf</td>
</tr>
<tr>
<td>User_3.dbf</td>
</tr>
<tr>
<td>User_4.dbf</td>
</tr>
<tr>
<td>User_5.dbf</td>
</tr>
<tr>
<td>User_6.dbf</td>
</tr>
<tr>
<td>User_7.dbf</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batchsnd.db1</td>
</tr>
<tr>
<td>Ctrl_str.dbf</td>
</tr>
<tr>
<td>Received.txt</td>
</tr>
<tr>
<td>Response.txt</td>
</tr>
<tr>
<td>Smascii.dbf</td>
</tr>
<tr>
<td>Smhl7def.dbf</td>
</tr>
<tr>
<td>Smvadef.dbf</td>
</tr>
<tr>
<td>Xexcept.dbf</td>
</tr>
<tr>
<td>Xmiticon.dbf</td>
</tr>
<tr>
<td>Xmitprm.dbf</td>
</tr>
<tr>
<td>Xreplace</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Batchsnd.dbf</th>
<th>Fileout1.txt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fileout2.txt</td>
<td>Text_rpt.dbf</td>
</tr>
<tr>
<td>Text_rpt.fpt</td>
<td>Usehost</td>
</tr>
</tbody>
</table>

1. Please refer to the Clinical Procedures web page for the device setup in CPManger.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?

---

**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.

---

1 Patch MD*1.0*6  May 2008  Added reference to CP web page for device setup.
2 Patch MD*1.0*6  May 2008  Added Hemodialysis vendor B. Braun.
Setup Instructions (B. Braun Device Settings for CP Manager)

<table>
<thead>
<tr>
<th>Setting For:</th>
<th>Clinical Procedures Device Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure Type (HL7 Universal Service ID)</td>
<td>BRAUN (Bi-Directional)</td>
</tr>
<tr>
<td>Settings:</td>
<td>Device Setup for the BRAUN (Bi-Directional)</td>
</tr>
<tr>
<td></td>
<td>NAME: BRAUN (Bi-Directional)</td>
</tr>
<tr>
<td></td>
<td>PRINT NAME: BBRAUN</td>
</tr>
<tr>
<td></td>
<td>DESCRIPTION: BBraun Dialysis Device Interface</td>
</tr>
<tr>
<td></td>
<td>M ROUTINE: MDHL7D</td>
</tr>
<tr>
<td></td>
<td>PACKAGE CODE: CP V1.0</td>
</tr>
<tr>
<td></td>
<td>ATTACH: UNC</td>
</tr>
<tr>
<td></td>
<td>BI-DIRECTIONAL: YES</td>
</tr>
<tr>
<td></td>
<td>HL7 INST: BRAUN</td>
</tr>
<tr>
<td></td>
<td>HL7 UNIVERSAL SERVICE ID:</td>
</tr>
<tr>
<td></td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Verified at Hines By:</td>
<td>W. A. Ackerman</td>
</tr>
</tbody>
</table>

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.

1 Patch MD*1.0*6  May 2008  Added Hemodialysis vendor Fresenius.
Setup Instructions (Hypercare Device Settings for CP Manager)

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

1Gambro

**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

---

1 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

<table>
<thead>
<tr>
<th>Setting For:</th>
<th>Clinical Procedures Device Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure Type (HL7 Universal Service ID)</td>
<td>GAMBRO_EXALIS</td>
</tr>
<tr>
<td><strong>Settings:</strong></td>
<td>Device Setup for the GAMBRO_EXALIS</td>
</tr>
<tr>
<td></td>
<td>NAME: GAMBRO_EXALIS</td>
</tr>
<tr>
<td></td>
<td>PRINT NAME: Gambro Exalis</td>
</tr>
<tr>
<td></td>
<td>DESCRIPTION: Cobe Dialysis Device Interface</td>
</tr>
<tr>
<td></td>
<td>M ROUTINE: MDHL7D</td>
</tr>
<tr>
<td></td>
<td>PACKAGE CODE: CP V1.0</td>
</tr>
<tr>
<td></td>
<td>ATTACH: UNC</td>
</tr>
<tr>
<td></td>
<td>BI-DIRECTIONAL: NO</td>
</tr>
<tr>
<td></td>
<td>HL7 INST: GAMBRO_EXALIS</td>
</tr>
<tr>
<td></td>
<td>HL7 UNIVERSAL SERVICE ID:</td>
</tr>
<tr>
<td></td>
<td>Veriﬁed at Hines By: W. A. Ackerman</td>
</tr>
</tbody>
</table>

Verified at Hines By: W. A. Ackerman
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.

**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.

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1 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.

**1Broker**  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.

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1 Patch MD*1.0*6  May 2008  Glossary term added.
**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.

**DBIA**  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).

**DLL**  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.

**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.

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1 Patch MD*1.0*6  May 2008  Glossary term added.
2 Patch MD*1.0*6  May 2008  Glossary terms added.
3 Patch MD*1.0*6  May 2008  Glossary term added.
4 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.

**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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1 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.

1Protocol  A set of rules governing communication within and between computing endpoints.

1  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.

1**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.

2**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.

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1 Patch MD*1.0*6  May 2008  Glossary term added.
2 Patch MD*1.0*6  May 2008  Glossary terms added.
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.

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.

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.