Clinical Procedures (CP)

Technical Manual and Package Security Guide

Version 1.0

April 2004

Revised August 2014

Department of Veterans Affairs

Office of Information and Technology (OI&T)

Product Development

Revision History

Description	Date	Author
[1]Patch MD*1.0*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 .	August 2014	Kathy Krause,VA PM; Michael Klein, HP PM; Dawn Hoff, Tech Writer
[2]Patch MD*1.0*20 released. Added new Exported Options and Updated the Routine Descriptions. Added new Parameter Definitions.	November 2010	Shirley Ackerman
[3]Patch MD*1.0*21 released. Updated Routine Description, Parameter Definition, and Menu Options By Name.	June 2010	Shirley Ackerman, Rachel Wilder
[4]Patch MD*1.0*11 released. Updated Routine Description, File and Field Description, Parameter Definition, and Menu Options By Name.	June 2009	Shirley Ackerman, Alfred Bustamante
[5]Patch MD*1.0*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.	May 2008	Shirley Ackerman, Alfred Bustamante
[6]Patch MD*1.0*14 released. Updated Routine Descriptions, File List, Parameter Definitions, Protocols, menu options, and Cross References. Deleted bad references to Sample Reports in Ch. 15.	March 2008	Shirley Ackerman, Alfred Bustamante

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[1] Patch MD*1.0*29 August 2014 Patch 29 release added
[2] Patch MD*1.0*20 November 2010 Patch 20 release added
[3] Patch MD*1.0*21 June 2010 Patch 21 release added.
[4] Patch MD*1.0*11 June 2009 Patch 11 release added.
[5] Patch MD*1.0*6 May 2008 Patch 6 release added.
[6] Patch MD*1.0*14 March 2008 Patch 14 release added.

[1]Patch MD*1.0*5 released August 2006. Updated File List, Package Default Definition, Parameter Definitions, and menu options.	Documented February 2008	Shirley Ackerman, Alfred Bustamante
Patch MD*1.0*2 released.	August 2006	
[2]Patch MD*1.0*1 released.	July 2004	
Originally released.	April 2004	

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[1] Patch MD*1.0*5 August 2006 Patch 5 release added.

[2] Patch MD*1.0*1 and MD*1.0*2 July 2004 Patch 2 release added.

Table of Contents

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.

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

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

Benefits

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

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

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

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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.

[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.

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

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

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

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[1] Patch MD*1.0*14 March 2008 Outdated link removed and replaced with directions to document.

4.   Routine Descriptions

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¹MDAPI      ; HOIFO/DP/NCA - CP API Calls ; [05-05-2003 10:28]
            ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDAPI1      ; HOIFO/NCA - Electrocardiogram Data Extraction ;12/4/02  12:32
            ;;1.0;CLINICAL PROCEDURES;**1**;Apr 01, 2004;Build 4
MDAR7M      ; HOIFO/NCA - Get Text Impression ;2/27/09  12:38
            ;;1.0;Clinical Procedures;**21**;Apr 01, 2004;Build 24
MDARP3      ; HOIFO/NCA - Get Procedures for Medicine ;1/13/04  14:35
            ;;1.0;CLINICAL PROCEDURES;**10,13**;Apr 01, 2004;Build 22
MDARSET     ; HOIFO/NCA - High Volume Check-In Setup ;6/30/09  10:00
            ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDCLN       ;HIOFO/NCA - Cleanup Disabled Studies ;4/19/01  11:52
            ;;1.0;Clinical Procedures;**21**;Apr 01, 2004;Build 24
MDCVT       ; HOIFO/DP/NCA - Medicine Package Conversion ;10/20/04  12:49
            ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 4
MDCVT1      ; HOIFO/NCA - Medicine Package Conversion (Cont.) ;1/6/05  15:12
            ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 4
MDCVTU      ; HOIFO/NCA - Medicine Conversion Verification Utility ; [08-28-2003
             11:34]
            ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 4
MDESPRT     ;HOIFO/NCA - ELECTRONIC SIGNATURE PRINT ;12/21/04  09:24
            ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 4
MDDEVCL     ;HOIFO/NCA - Collect Device Data ;8:34 AM  9 Jun 2005
            ;;1.0;CLINICAL PROCEDURES;**20**;Apr 01, 2004
MDHL7A      ; HOIFO/WAA - Routine to Decode HL7 for CP ;05/21/09  15:57
            ;;1.0;CLINICAL PROCEDURES;**6,11,21**;Apr 01, 2004;Build 24
MDHL7B      ; HOIFO/WAA -Bi-directional interface routine ;7/23/01  11:41
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7BH     ; HOIFO/WAA -Bi-directional interface (HL7) routine ;10/26/09  09:21
            ;;1.0;CLINICAL PROCEDURES;**11,21,20**;Apr 01, 2004;Build 30
MDHL7D      ; HOIFO/WAA -B-Braun, Fresenius Dialysis ; 06/08/00
            ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDHL7E      ; HOIFO/WAA -Olympus/CMore/Pentax Endoscopy ; 06/08/00
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7K1     ; HOIFO/WAA-KenitDx Interface ; 06/08/00
            ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDHL7K2     ; HOIFO/WAA -HP EnConcert Echo ; 06/08/00
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7M1     ; HOIFO/WAA - Muse EKG ; [02-06-2002 16:13]
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7MCA    ; HOIFO/REL-Routine to Decode HL7 for MEDICINE ; [05-07-2001 10:38]
            ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDHL7MCX    ; HIRMFO/WAA - Generate HL7 Error Message for MEDICINE ; [05-07-2001
             10:38]
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7P1     ; HOIFO/WAA-Sensormedics,Jaeger Pulmonary ; 06/08/00
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7R1     ; HOIFO/WAA -Clinivision Resporatory ; 06/13/02
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7U      ; HOIFO/WAA -Routine utilities for CP ;7/23/01  11:41
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7U1     ; HOIFO/WAA -Routine utilities for CP PROCESSING OBX ; 7/26/00
            ;;1.0;CLINICAL PROCEDURES;**11**;Apr 01, 2004;Build 68
MDHL7U2     ; HOIFO/WAA -Utilities for CP PROCESSING OBX text  ; 7/26/00
            ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDHL7U3     ; HOIFO/WAA -Utilities for CP to process HL7 messages  ;02/17/10  15
             :59
            ;;1.0;CLINICAL PROCEDURES;**6,21**;Apr 01, 2004;Build 24
MDHL7X      ; HOIFO/WAA -Generate HL7 Error Message ; 06/08/00
            ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDHL7XXX    ; HOIFO/DP - Loopback device for CP ;4/10/09  09:20
            ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDKRPC1     ;HIOFO/FT-RPC to return patient data ;2/19/08  13:13
            ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDKRPC2     ; HOIFO/DP - RPC Calls (Cont.) ;11/27/07  09:42
            ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDKUTL      ; HOIFO/DP - Renal Utilities ;11/29/07  14:45
            ;;1.0;CLINICAL PROCEDURES;**14**;Apr 01, 2004;Build 22
MDKUTLR     ; HOIFO/DP - Renal Utilities RPC;11/29/07  14:45
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[1] Patch MD*1.0*20 November 2010 Update routine list with new routines and patch history changes.

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                ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDNCHK     ; HOIFO/NCA - CP Multiple Result Check ;4/26/05  15:17
                ;;1.0;CLINICAL PROCEDURES;**11,21,20**;Apr 01, 2004;Build 68
MDOUTOR    ; HOIFO/NCA - Post Conversion Routine ; [04-14-2003 10:51]
                ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 4
MDPCE      ; HIRMFO/NCA - Routine For Data Extract ;6/9/08  13:29
                ;;1.0;CLINICAL PROCEDURES;**5,21**;Apr 01, 2004;Build 24
MDPCE1     ; HOIFO/NCA - Updated Routine For Data Extract ; [05-28-2002 12:55]
                ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDPCE2     ; HOIFO/NCA - Routine For Data Extract For Hemo Dialysis;9/10/04  11
                 :23 ;1/20/10  10:00
                ;;1.0;CLINICAL PROCEDURES;**6,21**;Apr 01, 2004;Build 24
MDPFTP1    ;HOIFO/NCA - PFT REPORT-DEMO INFO ;3/15/04  11:55
                ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004;Build 4
MDPFTP2    ; HOIFO/NCA - PFT REPORT-VOLUMES ;3/15/04  10:00
                ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004;Build 4
MDPFTP2A   ; HOIFO/NCA - PFT REPORT-FLOWS ;3/17/04  08:22
                ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004;Build 4
MDPFTP3    ; HOIFO/NCA - PFT REPORT-SPECIAL STUDIES (PT 2) ;3/17/04  12:48
                ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004;Build 4
MDPOST     ; HOIFO/DP - Post Init ;2/18/04  11:39
                ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDPOST04   ; HOIFO/DP - Post Init ; 2/18/04  11:39
                ;;1.0;CLINICAL PROCEDURES;**4**;Apr 01, 2004;Build 6
MDPOST06   ; HOIFO/DP - Post Init ;2/7/07  16:15
                ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDPOST1    ; HOIFO/NCA/DP - Build CP DEFINITION file (#702.01) - Optional Post
                 Init ; [12-04-2002 13:06]
                ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDPOST21   ; HOIFO/NCA - Post Init ;2/7/07  16:15
                ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDPOST6A   ;HOIFO/NCA-Convert Existing Notes to New File ;11/28/07  14:31
                ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDPS1      ; HOIFO/NCA - CP/Medicine Report Generator ;5/18/04  09:48
                ;;1.0;CLINICAL PROCEDURES;**2,10,13,21**;Apr 01, 2004;Build 24
MDPS2      ; HOIFO/NCA - CP/Medicine Report Generator (Cont.) ;5/18/04  09:41
                ;;1.0;CLINICAL PROCEDURES;**2**;Apr 01, 2004;Build 4
MDPS3      ; HOIFO/NCA - Remote Data View Data Retriever for CP ;8/26/05  14:37
                ;;1.0;CLINICAL PROCEDURES;**2,5,13**;Apr 01, 2004;Build 22
MDPS4      ; HOIFO/NCA - Retrieve List of Consult Procedures ;1/26/06  12:45
                ;;1.0;CLINICAL PROCEDURES;**13**;Apr 01, 2004;Build 22
MDPS5      ; HOIFO/NCA - Retrieve List of Consult Procedures for RDV ;3/4/05  1
                 3:29
                ;;1.0;CLINICAL PROCEDURES;**13**;Apr 01, 2004;Build 22
MDPSU      ; HOIFO/NCA - CP/Medicine Report Generator Utility;5/18/04  09:48
                ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDPSUL     ; HOIFO/NCA - HS Component Utility;5/18/04  09:48 ;10/5/09  09:33
                ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDPURGE    ;HOIFO/NCA - Study Clean-Up process ;6/18/08  10:15
                ;;1.0;CLINICAL PROCEDURES;**11**;Apr 01, 2004;Build 68
MDRPCNT    ; HOIFO/NCA - Document Handler Object (TMDNOTE) ;5/23/05  15:50
                ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDRPCNT1   ; HOIFO/NCA - Object RPCs (TMDNOTE) Continued 2;10/29/04  12:20 ;2/2
                 5/09  16:08
                ;;1.0;CLINICAL PROCEDURES;**6,21**;Apr 01, 2004;Build 24
MDRPCOD    ; HOIFO/DP - Object RPCs (TMDProcedureDef) ; [01-09-2003 15:20]
                ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDRPCOG    ; HOIFO/DP - CP Gateway ; [01-09-2003 15:20]
                ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDRPCOL    ; HOIFO/DP - Object RPCs (Logfile) ; [02-11-2002 13:41]
                ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDRPCOO    ; HOIFO/DP - Object RPCs (TMDOutput) ; [03-24-2003 15:44]
                ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDRPCOP    ; HOIFO/DP - Object RPCs (TMDPatient) ;8/3/09  10:39
                ;;1.0;CLINICAL PROCEDURES;**4,6,11,20**;Apr 01, 2004;Build 85
MDRPCOP1   ; HOIFO/DP - Object RPCs (TMDPatient) - Cont. ; 01-09-2003 15:21
                ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDRPCOR    ; HOIFO/DP - Object RPCs (TMDRecordId) ; [01-10-2003 09:14]
                ;;1.0;CLINICAL PROCEDURES;**17,20**;Apr 01, 2004
MDRPCOT    ; HOIFO/DP/NCA - Object RPCs (TMDTransaction) ;10/26/09  10:23
                ;;1.0;CLINICAL PROCEDURES;**5,6,11,21**;Apr 01, 2004;Build 24
MDRPCOT1   ; HOIFO/NCA/DP - Object RPCs (TMDTransaction) - Continued ;3/13/09
                 11:18
                ;;1.0;CLINICAL PROCEDURES;**5,11,21**;Apr 01, 2004;Build 24
MDRPCOT2   ; HOIFO/NCA - Object RPCs (TMDTransaction) Continued 2;10/29/04  12:
                 20 ;3/12/08  09:18
```

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             ;;1.0;CLINICAL PROCEDURES;**6,21,20**;Apr 01, 2004;Build 24
MDRPCOTA  ; HOIFO/NCA - Object RPCs (TMDTransaction) Continued 2;10/29/04  12:
           20 ;3/12/08  09:18
             ;;1.0;CLINICAL PROCEDURES;**20**;Apr 01, 2004;Build 85
MDRPCOTH  ; HOIFO/NCA - Process High Volume Procedure Results ;2/27/09  10:08
             ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDRPCOU   ; HOIFO/DP - Object RPCs (TMDUser) ; [01-09-2003 15:21]
             ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDRPCOV   ; HOIFO/DP - Object RPCs (TMDParameter) ; [04-15-2003 12:42]
             ;;1.0;CLINICAL PROCEDURES;;Apr 01, 2004;Build 4
MDRPCOW   ; HOIFO/DP/NCA - Billing Widget ;10/3/05  12:17
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDRPCU    ; HOIFO/DP - Object RPC Utilities ; [05-23-2003 10:16]
             ;;1.0;CLINICAL PROCEDURES;**4**;Apr 01, 2004;Build 6
MDRPCW    ; HOIFO/NCA - Calls to AICS;04/01/2003 ;01/21/10  11:51
             ;;1.0;CLINICAL PROCEDURES;**6,21,20**;Apr 01, 2004;Build 24
MDRPCW1   ; HOIFO/NCA - MD TMDENCOUNTER Object; [05-28-2002 12:55] ;2/16/10  1
           6:17
             ;;1.0;CLINICAL PROCEDURES;**6,21,20**;Apr 01, 2004;Build 24
MDRPCWU   ; HOIFO/NCA - CPT Code Query; [05-28-2002 12:55] ;2/16/10  16:17
             ;;1.0;CLINICAL PROCEDURES;**21**;Apr 01, 2004;Build 24
MDSTATU   ; HOIFO/NCA - Print List of Document Titles Needed ;10/21/04  13:44
             ;;1.0;CLINICAL PROCEDURES;**5**;Apr 01, 2004;Build 4
MDSTUDL   ; HOIFO/NCA - Clinical Procedures Studies List ;10/26/05  11:46
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
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 24
MDUXML    ; HOIFO/WAA -Utilities for XML text  ; 7/26/00
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDUXMLM   ; HOIFO/WAA -Utilities for XML text  ; 7/26/00
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDUXMLOX  ; HOIFO/WAA -OBX converter XML text  ; 7/26/00
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDUXMLU1  ; HOIFO/WAA -Utilities for XML text  ; 7/26/00
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDWCAN    ;HOIFO/NCA - Process No-Shows and Cancels ;7/29/08  09:50
             ;;1.0;CLINICAL PROCEDURES;**11,21**;Apr 01, 2004;Build 24
MDWCHK    ; HOIFO/NCA - Create CP Studies for Existing Procedures ;12/13/07  1
           5:52
             ;;1.0;CLINICAL PROCEDURES;**14**;Apr 01,2004;Build 22
MDWOR     ; HOIFO/NCA - Main Routine to Decode HL7 ;9/8/08  15:20
             ;;1.0;CLINICAL PROCEDURES;**14,11,21,20**;Apr 01,2004;Build 24
MDWORC    ; HOIFO/NCA - Main Routine to Decode HL7 from Consult ;1/8/08  15:00
             ;;1.0;CLINICAL PROCEDURES;**14**;Apr 01,2004;Build 22
MDWORSR   ; HOIFO/NCA - Daily Schedule Studies;7/2/04  12:39 ;10/15/08  13:39
             ;;1.0;CLINICAL PROCEDURES;**14,11,21,20**;Apr 01,2004;Build 24
MDWSETUP  ; HOIFO/NCA - Auto Study Check-In Setup ;3/18/08  14:14
             ;;1.0;CLINICAL PROCEDURES;**14,11**;Apr 01, 2004;Build 68
MDXMLFM   ; HOIFO/DP - Fileman -> XML Utilities ; [01-10-2003 09:14]
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
MDXMLFM1  ; HOIFO/DP/NCA - Data -> XML Utilities ; [01-10-2003 09:14]
             ;;1.0;CLINICAL PROCEDURES;**6**;Apr 01, 2004;Build 103
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5. File List and Related Information

File and Field Descriptions

CP Transaction File - #702

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

Field Name	Field Number	Format	Description
Patient	702,.01	Pointer to Patient (#2) file	This field contains a pointer to the Patient (#2) file for this study.
SSN	702,.011	Computed	This field contains the computed value of the patient's SSN from the Patient (#2) file.
DOB	702,.012	Computed	This field contains the computed value of the patient's date of birth from the Patient (#2) file.
Created Date/Time	702,.02	Date	This field contains the date/time the study was created within the CP User executable.
Created By	702,.03	Pointer to New Person (#200) file	This field contains the DUZ of the user that created this study.
CP Definition	702,.04	Pointer to CP Definition (#702.01) file	This field contains a pointer to the CP Definition (#702.01) file of the procedure definition that this study represents.
Consult Number	702,.05	Free Text 1-20 characters in length	This field contains an IEN of the Consult (#123) file representing the Consult order that is matched up to this study.
TIU Note	702,.06	Pointer to TIU Document (#8925) file	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.
Vstring	702,.07	Free Text 1-50 characters in length	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

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

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

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[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.

[1]CP_Transaction_TIU_History File - #702.001

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

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

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[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.

Field Name	Field Number	Format	Description
Name	702.01,.01	Free Text 3-30 characters in length	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.
Treating Specialty	702.01,.02	Pointer to Facility Treating Specialty (#45.7) file	This field defines the specialty that this procedure falls under.
Require External Data	702.01,.03	Set: 0 - No 1 - Yes	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.
Default TIU Note	702.01,.04	Pointer to TIU Document Definition (#8925.1) file	This field contains a TIU Note Title to use as the default when CP creates a note for interpretation for this procedure.
Hospital Location	702.01,.05	Pointer to Hospital Location (#44) file	This is the location that will be used when creating the TIU Note for interpretation.
[1]Processing Application	702.01,.06	Set: 1 - Default 2 – Hemodialysis	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.
Auto Submit	702.01,.07	Set:	This field only applies to bi-

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[1] Patch MD*1.0*6 May 2008 Field added to the CP Definition file.

		0 - No 1 - Yes	directional instruments. It is used to indicate whether or not the image attachment should be automatically submitted to VistA Imaging once the procedure is performed and the result is passed to CP.
External Data Directory	702.01,.08	Free Text 3-150 characters in length	This field contains a reference to a network share where user supplied attachments are located for this procedure.
Active	702.01,.09	Set: 0 - No 1 - Yes	Yes/No to indicate active procedures that can be linked to Consults.
Instrument (multiple)	702.011,.01	Pointer to CP Instrument (#702.09) file	Contains a pointer to an instrument that generates results for this procedure.
[1]Processed Result	702.01,.12	Set: 0 - Final Result 1 - Multiple Results 2 – Cumulative Result	This field is a flag which indicates whether a final result, multiple results, or cumulative result is associated with this procedure.

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[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.

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

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

Field Name	Field Number	Format	Description
Process XML	702.09,.306	Set: 0 - No 1 - Yes	Enter Yes if this instrument produces XML type data.
Process XMS	702.09,.307	Set: 0 - No 1 - Yes	Enter Yes if this instrument produces XMS type data.

CP Result Report File - #703.1

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

Field Name	Field Number	Format	Description
Upload ID	703.1,.01	Free Text 1-30 characters in length	Unique identifier assigned for each upload.
Patient	703.1,.02	Pointer to Patient (#2) file	Pointer to the Patient (#2) file of the patient uploaded from the result of the instrument.
Date/Time Performed	703.1,.03	Date	Date/time the procedure was performed on the instrument.
Instrument	703.1,.04	Pointer to CP Instrument (#702.09) file	Pointer to the CP Instrument (#702.09) file of the instrument that produced these reports.
Study Reference Number	703.1,.05	Pointer to CP Transaction file (#702)	This field is used as a reference to the transaction.
HL7 Reference Number	703.1,.06	Free Text 1-30 characters in length	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.
Status	703.1,.09	Set: U - Unmatched M - Matched	Status of the results: U - Unmatched M - Matched
Upload Item (multiple)	703.11,.01	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	This field contains the type of data element that was uploaded from the instrument.
Attachment UNC	703.11,.02	Free Text 1-240 characters in length	This field contains the Universal Naming Convention (UNC) for this attachment. This indicates where the attachment is located.

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

[1]CP Conversion File- #703.9

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

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

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[1] Patch MD*1.0*5 August 2006 CP Conversion File #703.9 added.

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

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

[1]**Hemodialysis Access Points File - #704.201**

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

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

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[1] Patch MD*1.0*6 May 2008 File 704.201 added.

[1]Hemodialysis Study File - #704.202

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

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

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[1] Patch MD*1.0*6 May 2008 File 704.202 added.

[1]**Hemodialysis Setting File - #704.209**

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

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

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[1] Patch MD*1.0*6 May 2008 File 704.209 added.

Package Default Definition

FILE #	NAME	UP DATE DD	SEND SEC. CODE	DATA COMES W/FILE	SITE DATA	RSLV PTS	USER OVER RIDE
702	CP TRANSACTION	YES	YES	NO			
[1]702.001	CP_TRANSACTION_TIU_HISTORY	YES	YES	NO			
702.01	CP DEFINITION	YES	YES	NO			
702.09	CP INSTRUMENT	YES	YES	YES	ADD	NO	NO
703.1	CP RESULT REPORT	YES	YES	NO			
[2]703.9	CP CONVERSION	YES	YES	NO			
[3]704.201	HEMODIALYSIS ACCESS POINTS	YES	YES	NO			
704.202	HEMODIALYSIS STUDY	YES	YES	NO			
704.209	HEMODIALYSIS SETTINGS	YES	YES	NO			

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[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.

[3] Patch MD*1.0*6 May 2008 Default definitions added for 704.201, 704.202, and 704.209.

6.   Exported Options

Delphi Components

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

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

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

TMDEditPointer = Class(TComboBox)
> This component is designed to manage FileMan Pointer types. This component currently handles screens via hard coded screens on the server side in routine MDRPCOR.

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

TMDMemo = Class(TMemo)
> This component manages FileMan word-processing data types only. It will validate the data upon leaving the component.

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

TMDRadioGroup = Class(TRadioGroup)

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

TMDCheckBox = Class(TCheckBox)

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

Remote Procedure Calls (RPC)

NAME: **MD GATEWAY**   TAG: RPC
  ROUTINE: MDRPCOG   RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED   WORD WRAP ON: TRUE
  VERSION: 1

NAME: **MD TMDOUTPUT**   TAG: RPC
  ROUTINE: MDRPCOO   RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED   WORD WRAP ON: TRUE
 DESCRIPTION:
 Manages the output of VistA data to the client via the default HFS device.
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
 Param[3] := Instance
 Param[4] := Value
INPUT PARAMETER: OPTION   PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 10   REQUIRED: YES
  SEQUENCE NUMBER: 1
 DESCRIPTION:
 Contains the option for the RPC. RPC is called as shown:

 Options and other required parameters include:

 ENTVAL   ENT
 GETPAR   ENT,PAR,INST
 GETLST   ENT,PAR
 GETWP   ENT,PAR,INST
 SETPAR   ENT,PAR,INST,VAL
 SETLST   ENT,PAR,,.VAL   (Uses instance 0-n)
 SETWP   ENT,PAR,INST,.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 namespaced and it must be unique.  Parameters can be
 defined to store the typical package parameter data (e.g. the default add
 order screen), but they can also be used to store GUI application screen
 settings a user has selected (e.g. font or window width).  When a
 parameter is defined, the entities, which may set that parameter, are also
 defined.  The definition of parameters is stored in the PARAMETER
 DEFINITION file (#8989.51).

 NOTE: This utility restricts the parameter name to those in the Clinical
 Procedures namespace (MD*).
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                       TAG: RPC
  ROUTINE: MDRPCOP                        RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED                WORD WRAP ON: TRUE
```

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

```
NAME: MD TMDRECORDID                      TAG: RPC
  ROUTINE: MDRPCOR                        RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED                WORD WRAP ON: TRUE
DESCRIPTION:
General RPC for VA Fileman functions.


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

 LOOKUP:    Performs very generic file lookup functionality
 VALIDATE: Validates input to a fileman field and saves to FDA
 DELREC:    Validates ability to delete and if able deletes a record
 SETFDA:    Validates input and stores in FDA
 SAVEFDA:   Saves any data stored in FDA
 CLEARFDA: Clears any data in the FDA without saving
 GETDATA:   Retrieves a single field value
 GETCODES: Retrieves the set of codes for a field
 GETLABEL: Retrieves a fields TITLE or LABEL if no Title
 GETIDS:    Returns required identifiers for a DD Number
 GETHELP:   Returns Fileman help for a field
 RENAME:    Validates and renames .01 field if valid
 NEWREC:    Creates a new record
 CHANGES:   Returns 0/1 if changes exist in FDA
 CHKVER:    Version check Client <-> Server
 LOCK:      Locks a record by DD and IENS
 UNLOCK:    Unlocks record locked by LOCK option
INPUT PARAMETER: OPTION                   PARAMETER TYPE: LITERAL
  MAXIMUM DATA LENGTH: 30                 REQUIRED: YES
  SEQUENCE NUMBER: 1
DESCRIPTION:
 See description of RPC.
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


[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^PULMON CIRCULAT DIS NEC^^^^^^^269690
 ^TMP("MDRPCW",539023945,5) = 417.9^PULMON 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
ARTERY^^^^^901.42^^275136
 ^TMP("MDRPCW",539023945,14) = 162.3^MAL NEO UPPER LOBE
LUNG^^^^^162.4^162.5^73534
 ^TMP("MDRPCW",539023945,15) = 235.7^UNC BEHAV NEO LUNG^^^^^^^267754
 ^TMP("MDRPCW",539023945,16) = 875.0^OPEN WOUND OF CHEST^^^^^^^274991
 ^TMP("MDRPCW",539023945,17) = 162.9^MAL NEO BRONCH/LUNG NOS^^^^^^^73521
 ^TMP("MDRPCW",539023945,18) = 786.6^CHEST SWELLING/MASS/LUMP^^^^^^^273380
 ^TMP("MDRPCW",539023945,19) = 518.89^OTHER DISEASE OF LUNG, NEC^^^^^^^87486
 ^TMP("MDRPCW",539023945,20) = ^BRONCHOSCOPY
 ^TMP("MDRPCW",539023945,21) = 012.20^ISOL TRACHEAL TB-
UNSPEC^^^^^012.21^^266107
 ^TMP("MDRPCW",539023945,22) = 012.22^ISOL TRACH TB-EXAM UNKN^^^^^^^266109
 ^TMP("MDRPCW",539023945,23) = 012.23^ISOLAT TRACH TB-MICRO DX^^^^^^^266110
 ^TMP("MDRPCW",539023945,24) = 012.24^ISOL TRACHEAL TB-CULT DX^^^^^^^266111
 ^TMP("MDRPCW",539023945,25) = 748.61^CONGEN BRONCHIECTASIS^^^^^^^265478
 ^TMP("MDRPCW",539023945,26) = 011.50^TB BRONCHIECTASIS-
UNSPEC^^^^^011.51^^266056
 ^TMP("MDRPCW",539023945,27) = 784.1^THROAT PAIN^^^^^^^276881
 ^TMP("MDRPCW",539023945,28) = 784.8^HEMORRHAGE FROM THROAT^^^^^^^273371
 ^TMP("MDRPCW",539023945,29) = 034.0^STREP SORE THROAT^^^^^^^114610
 ^TMP("MDRPCW",539023945,30) = 466.11^AC. BRONCH/RESP SYNCYT V
(RSV)^^^^^466.19^
^304309
 ^TMP("MDRPCW",539023945,31) = 530.10^ESOPHAGITIS, UNSP.^^^^^^^295809
 Global ^

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

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

 > D ^%G

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

```
NAME: MD TMDENCOUNTER                   TAG: GETENC
  ROUTINE: MDRPCW1                       RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED               WORD WRAP ON: TRUE
  VERSION: 1
 DESCRIPTION:
 This remote procedure will return the existing data in an encounter.
INPUT PARAMETER: STUDY                   PARAMETER TYPE: REFERENCE
  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";0/1^0/1;"AO";0/1^0/1;"IR";0/1^0/1;"EC";0/0/
1;"MST";0/1^0/1;"HNC";0/1^0/1;"CV";0/1^0/1
      P1 = "SC" - Service Connected
      P2 = first "^" piece 1 if the condition can be answered
                   0 if the condition should be null not asked
          second "^" piece - If Scheduling has the answer, 1 = yes 0 = no
      P3 = "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  = NOTELIST

 > D RPC^MDRPCNT(.RESULTS,"NOTELST",476)

 > D ^%G

 Global ^TMP("MDKUTL",$J
         TMP("MDKUTL",$J
 ^TMP("MDKUTL",538992716,1) = 968^PROCEDURE NOTE^OCT 10, 2001@17:08:36
 ^MDPROVIDER,ONE ^PROSTHETICS
 ^TMP("MDKUTL",538992716,2) = 969^PROCEDURE NOTE^OCT 10,
2001@17:10:44^^PROSTHET
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:
O
```

```
 CT 10, 2001@17:08:36
 ^TMP("TIUVIEW",538992716,3) =        AUTHOR: MDPROVIDER,ONE   EXP COSIGNER:

 ^TMP("TIUVIEW",538992716,4) =      URGENCY:
STATUS:
C
 OMPLETED
 ^TMP("TIUVIEW",538992716,5) =
 ^TMP("TIUVIEW",538992716,6) = PROCEDURE SUMMARY CODE: Abnormal


 ^TMP("TIUVIEW",538992716,7) = DATE/TIME PERFORMED: OCT 15, 2001
 ^TMP("TIUVIEW",538992716,8) =
 ^TMP("TIUVIEW",538992716,9) =    *** PROCEDURE NOTE Has ADDENDA ***
 ^TMP("TIUVIEW",538992716,10) =
 ^TMP("TIUVIEW",538992716,11) = Complete consult 1104. 6 attached images.
 ^TMP("TIUVIEW",538992716,12) =
 ^TMP("TIUVIEW",538992716,13) = /es/ MDPROVIDER,ONE
 ^TMP("TIUVIEW",538992716,14) =
 ^TMP("TIUVIEW",538992716,15) = Signed: 10/15/2001 13:02
 ^TMP("TIUVIEW",538992716,16) =
 ^TMP("TIUVIEW",538992716,17) = 10/15/2001 ADDENDUM
STATUS:

 COMPLETED
 ^TMP("TIUVIEW",538992716,18) = aDDENDUM LA LA LA
 ^TMP("TIUVIEW",538992716,19) = LA LA LA
 ^TMP("TIUVIEW",538992716,20) =
 ^TMP("TIUVIEW",538992716,21) = /es/ MDPROVIDER,ONE
 ^TMP("TIUVIEW",538992716,22) =
 ^TMP("TIUVIEW",538992716,23) = Signed: 10/15/2001 13:04
```

```
NAME: MD TMDSUBMITU                   TAG: RPC
  ROUTINE: MDRPCOWU                   RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED            WORD WRAP ON: TRUE
  VERSION: 1


NAME: MD TMDWIDGET                    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               PARAMETER TYPE: LITERAL
  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 -
 DFN).
```

```
 RETURN PARAMETER DESCRIPTION:
 Returns an array.

  RESULT(0)=number or
  RESULT(0)=-1^error message
  RESULT(1)=data
  RESULT(n)=data

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

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

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


NAME: MDK GET/SET RENAL DATA               TAG: RPC
  ROUTINE: MDKRPC2                         RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED                 WORD WRAP ON: TRUE


NAME: MDK UTILITY                          TAG: RPC
  ROUTINE: MDKUTLR                         RETURN VALUE TYPE: GLOBAL ARRAY
  AVAILABILITY: RESTRICTED                 WORD WRAP ON: TRUE
```

Parameter Definitions

```
NAME: MD ALLOW EXTERNAL ATTACHMENTS
  DISPLAY TEXT: Allow non-instrument attachments
  MULTIPLE VALUED: No                      VALUE TERM: Allowed
  VALUE DATA TYPE: yes/no
 DESCRIPTION:
 Set this value to Yes to allow users of CPUser.exe to attach documents to
 the transaction that are not created by an instrument.
PRECEDENCE: 1                              ENTITY FILE: SYSTEM


[1]NAME: MD APPOINT END DATE
  DISPLAY TEXT: End Date for Encounter Appointments
  MULTIPLE VALUED: No                      VALUE TERM: Days
  VALUE DATA TYPE: numeric             VALUE DOMAIN: 0:365
  VALUE HELP: Enter a number from 0 to 365.
 DESCRIPTION:
 Enter a number from 0 to 365 for the number of days that will be
 used to add to today as the end date range of the Encounter
 Appointments.  If no value is entered, the default value used
 will be 0.
PRECEDENCE: 1                              ENTITY FILE: SYSTEM


NAME: MD APPOINT START DATE
  DISPLAY TEXT: Start Date for Encounter Appointments
  MULTIPLE VALUED: No                      VALUE TERM: Days
  VALUE DATA TYPE: numeric             VALUE DOMAIN: 0:365
  VALUE HELP: Enter a number from 0 to 365.
 DESCRIPTION:
 Enter a number from 0 to 365 for the number of days that will be
 used to subtract from today as the start date range of the Encounter
Appointments.  If no value is entered, the default value used
 will be 200.
PRECEDENCE: 1                              ENTITY FILE: SYSTEM


NAME: MD COMPL PROC DISPLAY DAYS
  DISPLAY TEXT: Completed Proc Display Days
  MULTIPLE VALUED: No                      VALUE TERM: Days
  VALUE DATA TYPE: numeric             VALUE DOMAIN: 1:365
  VALUE HELP: Enter the number of days from 1 to 365
 DESCRIPTION:
 The number of days the completed procedure requests will be
 displayed in the CP Check-in screen.
PRECEDENCE: 1                              ENTITY FILE: SYSTEM


[2]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

  VALUE HELP: Enter 0 for None, 1 for Outpatient, 2 for Inpatient, or 3 for
both.
```

---

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

[2] Patch MD*1.0*14 March 2008 Parameter Definitions added.

```
   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


[1]NAME: MD CLINIC ASSOCIATION            DISPLAY TEXT: MD Clinic Association
   MULTIPLE VALUED: Yes                   INSTANCE TERM: Sequence
   VALUE TERM: Clinic;Procedure Association Value
   PROHIBIT EDITING: No                   VALUE DATA TYPE: free text
   INSTANCE DATA TYPE: numeric         INSTANCE DOMAIN: 1:9999
   INSTANCE HELP: Enter the sequence to associate a clinic and procedure.
 DESCRIPTION:
 This parameter is used to identify the clinic and procedure
 association.  Each item should be entered with the following format

    Clinic internal entry number_";"_Procedure internal entry number
PRECEDENCE: 1                              ENTITY FILE: SYSTEM


NAME: MD CRC BYPASS                       DISPLAY TEXT: Bypass CRC Checking
   MULTIPLE VALUED: No                    VALUE TERM: Bypass CRC Checking
   VALUE DATA TYPE: yes/no
```

---

[1] Patch MD*1.0*11 June 2009 Parameter Definition added

```
 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                   VALUE TERM: Days
  PROHIBIT EDITING: No                  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


[1]NAME: MD DAYS TO RETAIN COM STUDY
  DISPLAY TEXT: Days to Retain Completed Study
  MULTIPLE VALUED: No                   VALUE TERM: Days
  PROHIBIT EDITING: No                  VALUE DATA TYPE: numeric
  VALUE DOMAIN: 1:365
  VALUE HELP: Enter the number of days from 1 to 365
 DESCRIPTION:
 The number of days after check-in date/time to display the study
 that has been complete in the CPUser application.  Studies that have
 procedures with multiple or cumulative results are NOT included.
 Cumulative and multiple results studies will have a default value of
 365.
PRECEDENCE: 1                                 ENTITY FILE: SYSTEM


[2]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
 that has been completed in the CPUser application.  This only
 pertains to studies that have procedures with multiple studies.
PRECEDENCE: 1                                 ENTITY FILE: SYSTEM
```

---

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

[2] Patch MD*1.0*20 November 2010 Parameter Definitions Added.

NAME: **MD DEVICE SURVEY TRANSMISSION**   DISPLAY TEXT: Device Survey
Transmission
  MULTIPLE VALUED: No   VALUE TERM: Yes/No
  PROHIBIT EDITING: No   VALUE DATA TYPE: yes/no
  VALUE HELP: Enter 'Y' for 'YES' or 'N' for 'NO'.
 DESCRIPTION:
 Used to determine if the site wants to transmit the device survey to
 Hines. Enter 'Y' for 'YES' to send the survey or 'N' for 'NO' to
 suppress the transmission.
PRECEDENCE: 1   ENTITY FILE: SYSTEM

NAME: **MD FILE EXTENSIONS**   DISPLAY TEXT: Imaging File Types
  MULTIPLE VALUED: Yes   INSTANCE TERM: Extension
  VALUE TERM: File type   PROHIBIT EDITING: No
  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 '.'
  INSTANCE VALIDATION CODE: K:X'?1".".9ULN X

 DESCRIPTION:
 This parameter stores a list of valid file types and the associated
 extensions of these files.
PRECEDENCE: 1   ENTITY FILE: SYSTEM

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
PRECEDENCE: 1   ENTITY FILE: SYSTEM

[1]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.
  INSTANCE SCREEN CODE: I
+$P(^MDS(702.01,+Y,0),"^",6)'=2&(+$P(^MDS(702.01,+Y,0)
,"^",11)'=2)&($P(^MDS(702.01,+Y,0),"^",9)>0)
 DESCRIPTION:
 This parameter will contain a free text string that contains two pieces
 of data delimited by a semicolon ';'. The two pieces of data are: 1)
 1/0 (Yes/No) to indicate whether or not the text of the result should be
 added to the note, 2) 1/0 (Yes/No) to enter the text of the result as the
 significant finding of the Consult. (If you enter a 0, the note will be
 auto closed with the text inside.)
 Example string: 1;0
PRECEDENCE: 1   ENTITY FILE: SYSTEM

NAME: **MD HFS SCRATCH**
   DISPLAY TEXT: VistA Scratch HFS Directory
  MULTIPLE VALUED: No   VALUE TERM: Directory name
  VALUE DATA TYPE: free text   VALUE DOMAIN: 1:250

---

[1] Patch MD*1.0*21 June 2010 Parameter Definition added.

```
  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 TERM: Imaging Network Share
  VALUE DATA TYPE: free text             VALUE DOMAIN: 1:250
 DESCRIPTION:
 This parameter contains the name of a network server, share, and path
 (UNC) to a location where Clinical Procedures can put files for pick-up by
 the Imaging background processor for archiving.
PRECEDENCE: 1                            ENTITY FILE: SYSTEM
```

```
[1] NAME: MDK APPLICATION INSTALL        DISPLAY TEXT: MDK Application
Install
  MULTIPLE VALUED: Yes
  INSTANCE TERM: Installation Distribution Info
  VALUE TERM: Distribution Info Value   PROHIBIT EDITING: No
  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 the Hemodialysis application
 distribution information.  The information includes the following:
 1) Date/Time when application first launched.
 2) User Name
 3) System Option Loaded (Y/N)
 4) Workstation of where the application was launched.
PRECEDENCE: 1                            ENTITY FILE: SYSTEM
```

```
NAME: MDK GUI VERSION
  DISPLAY TEXT: Hemodialysis Version Compatibility
  MULTIPLE VALUED: Yes                   INSTANCE TERM: Application:Version
  VALUE TERM: Compatible with current server version
  PROHIBIT EDITING: No                   VALUE DATA TYPE: yes/no
  INSTANCE DATA TYPE: free text          INSTANCE DOMAIN: 1:40

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

```
[2]NAME: MD MEDICINE CONVERTED           DISPLAY TEXT: Medicine Package
Converted
  MULTIPLE VALUED: No                    VALUE TERM: Yes/No
  PROHIBIT EDITING: No                   VALUE DATA TYPE: yes/no
 DESCRIPTION:
 Used to determine if the Medicine Package has been converted.
PRECEDENCE: 1                            ENTITY FILE: SYSTEM
```

---

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

[2] Patch MD*1.0*5 August 2006 Parameter Definition added.

[1]NAME: **MD NOT ADMN CLOSE MUSE NOTE**   DISPLAY TEXT: NOT ADMN Close Muse
Note
  MULTIPLE VALUED: No   VALUE TERM: Yes/No
  PROHIBIT EDITING: No   VALUE DATA TYPE: yes/no
 DESCRIPTION:
 This parameter is used to indicate the note should not be
 administratively closed with the proxy user CLINICAL, DEVICE PROXY
 SERVICE but the interpreter of the procedure for the MUSE device.
 The default is "No".
PRECEDENCE: 1   ENTITY FILE: SYSTEM

NAME: **MD OFFLINE MESSAGE**   DISPLAY TEXT: Offline message
  MULTIPLE VALUED: No   VALUE TERM: Offline Message
  VALUE DATA TYPE: word processing
 DESCRIPTION:
 This parameter contains a message to display to the users when the Clinical
 Procedures application is offline.
PRECEDENCE: 1   ENTITY FILE: SYSTEM

[2]NAME: **MD OLYMPUS 7**   DISPLAY TEXT: MD OLYMPUS 7
  MULTIPLE VALUED: No   VALUE TERM: Yes/No
  PROHIBIT EDITING: No   VALUE DATA TYPE: yes/no
  VALUE HELP: Enter Yes/No whether you have Olympus version 7.3.7.
 DESCRIPTION:
 This parameter definition indicates whether the Olympus device
 is version 7.3.7. The value is Yes/No. The default value
 is "No".
PRECEDENCE: 1   ENTITY FILE: SYSTEM

NAME: **MD ONLINE**
  DISPLAY TEXT: Clinical Procedure Online/Offline
  MULTIPLE VALUED: No
  VALUE TERM: Is Clinical Procedures Online
  PROHIBIT EDITING: No   VALUE DATA TYPE: yes/no
  VALUE HELP: Enter 'Yes' to allow access to CP
 DESCRIPTION:
 This parameter controls access to the Clinical Procedures package.
PRECEDENCE: 1   ENTITY FILE: SYSTEM

[3]NAME: **MD USE APPOINTMENT**   DISPLAY TEXT: Use Appointment
Location
  MULTIPLE VALUED: No   VALUE TERM: Use Appointment location
  VALUE DATA TYPE: yes/no
 DESCRIPTION:
 Set this value to Yes to allow CPUser to use the location of the
 appointment selected during CP study check-in for the workload.
 Otherwise, the hospital location of the CP Definition will be used.

Enter RETURN to continue or '^' to exit:
 If no value is entered, the default value is No.
PRECEDENCE: 1   ENTITY FILE: SYSTEM

---

[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.

[1]NAME: **MD USE APPT WITH PROCEDURE**
  DISPLAY TEXT: Use Appointment With Procedure
  MULTIPLE VALUED: No
  VALUE TERM: Use appointment with procedure
  PROHIBIT EDITING: No   VALUE DATA TYPE: yes/no
 DESCRIPTION:
 Enter "Y" or "N" for Yes/No on whether your site selects the appointment
 scheduled for outpatients during the procedure request in CPRS.
PRECEDENCE: 1   ENTITY FILE: SYSTEM

[2]NAME: **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
 are downloaded to be displayed from a local server location.
PRECEDENCE: 1   ENTITY FILE: SYSTEM

---

[1] Patch MD*1.0*14 March 2008 Parameter Definition added.

[2] Patch MD*1.0*21 June 2010 Parameter Definition Added.

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

[1]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                           ACTIVE/INACTIVE: ACTIVE
  COUNTRY CODE: USA                       HL7 ENCODING CHARACTERS: ^~\&
  HL7 FIELD SEPARATOR: |


NAME: MCAR-INST                           ACTIVE/INACTIVE: ACTIVE
  FACILITY NAME: VISTA                    MAIL GROUP: POSTMASTER
  COUNTRY CODE: USA                       HL7 ENCODING CHARACTERS: ^~\&
  HL7 FIELD SEPARATOR: |
```

HL Logical Links

```
NODE: MCAR INST                          LLP TYPE: TCP
  DEVICE TYPE: Single-threaded Server    STATE: Reading
  AUTOSTART: Enabled                     TIME STARTED: MAR 04, 2004@06:46:17
  TASK NUMBER: 526320                    SHUTDOWN LLP ?: NO
  QUEUE SIZE: 100
  RE-TRANSMISSION ATTEMPTS: 3            READ TIMEOUT: 60
  ACK TIMEOUT: 60                        EXCEED RE-TRANSMIT ACTION: ignore
  TCP/IP PORT: 9026                      TCP/IP SERVICE TYPE: SINGLE LISTENER
  PERSISTENT: NO                         STARTUP NODE: DEV:ISC4A1
  IN QUEUE BACK POINTER: 331             IN QUEUE FRONT POINTER: 331
  OUT QUEUE BACK POINTER: 220            OUT QUEUE FRONT POINTER: 210


NODE: MCAR OUT                           LLP TYPE: TCP
  DEVICE TYPE: Non-Persistent Client     STATE: Openfail
  AUTOSTART: Enabled                     TIME STARTED: MAR 04, 2004@06:45:47
  TASK NUMBER: 529066                    SHUTDOWN LLP ?: NO
  QUEUE SIZE: 100                        RE-TRANSMISSION ATTEMPTS: 3
  READ TIMEOUT: 60                       ACK TIMEOUT: 60
  EXCEED RE-TRANSMIT ACTION: ignore      TCP/IP ADDRESS: 10.3.17.157
  TCP/IP PORT: 9028                      TCP/IP SERVICE TYPE: CLIENT (SENDER)
  PERSISTENT: NO                         STARTUP NODE: DEV:ISC4A1
  IN QUEUE BACK POINTER: 202             IN QUEUE FRONT POINTER: 202
  OUT QUEUE BACK POINTER: 206            OUT QUEUE FRONT POINTER: 202
```

Menu Options by Name

```
NAME: MD GUI USER                        MENU TEXT: MD GUI USER
  TYPE: Broker (Client/Server)           CREATOR: ACKERMAN,NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 59331,44145
RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION
RPC: MD TMDUSER
RPC: MD UTILITIES
  UPPERCASE MENU TEXT: MD GUI USER


NAME: MD GUI MANAGER                      MENU TEXT: MD GUI MANAGER
  TYPE: Broker (Client/Server)           CREATOR: ACKERMAN,NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 59385,45622
RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION
RPC: MD TMDUSER
RPC: MD UTILITIES
RPC: MD GATEWAY
  UPPERCASE MENU TEXT: MD GUI MANAGER


[1]NAME: MD AUTO CHECK-IN SETUP          MENU TEXT: Auto Study Check-In Setup
  TYPE: run routine                      CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:    This option is used to populate the XPAR parameters MD USE
APPT WITH PROCEDURE, MD CHECK-IN PROCEDURE LIST, MD CLINIC QUICK LIST, and MD
 CLINICS WITH MULT PROC.  The four XPAR parameters are used for the auto study
 check-in.  Users can use the option to indicate whether their site use and
 schedule appointments.  They can populate a list of procedures and associated
 clinics that need a CP study checked-in.
  ROUTINE: EN1^MDWSETUP
  UPPERCASE MENU TEXT: AUTO STUDY CHECK-IN SETUP

NAME: MD SCHEDULED STUDIES               MENU TEXT: Scheduled Studies
  TYPE: run routine                      CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:    This option is tasked to run daily.  It will process the HL7
 messages that need to be sent to the device on a daily basis for CP studies.
  ROUTINE: EN1^MDWORSR              SCHEDULING RECOMMENDED: YES
  UPPERCASE MENU TEXT: SCHEDULED STUDIES


NAME: MD STUDY CHECK-IN                   MENU TEXT: Study Check-in
  TYPE: run routine                      CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:    This option is tasked to run daily.  It checks-in CP studies
 for procedures that require multiple encounters such as Hemodialysis,
```

---

[1] Patch MD*1.0*14 March 2008 Options added to support the auto study check-in.

Respiratory Therapy, and Sleep Studies.
  ROUTINE: CLINICPT^MDWORSR   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   CREATOR: ACKERMAN,NIEN-CHIN
  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   CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
DESCRIPTION: This option prints a list of procedures that has incomplete
workload for the visit.
  ROUTINE: E1^MDSTUDW
  UPPERCASE MENU TEXT: PRINT LIST OF PROCEDURE WITH I

NAME: **MD PROCESS RESULTS**   MENU TEXT: MD Process Results
  TYPE: run routine   CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES   E ACTION PRESENT: YES
DESCRIPTION: This task is ran daily for every hour to process results
and update Consults package.
  ENTRY ACTION: N ZTSAVE S ZTSAVE("DUZ")=DUZ,ZTSAVE("DUZ(")=""
  ROUTINE: PROCESS^MDHL7XXX   UPPERCASE MENU TEXT: MD PROCESS
RESULTS

[2] NAME: **MD HEMODIALYSIS USER**   MENU TEXT: HEMODIALYSIS USER
  TYPE: Broker (Client/Server)   CREATOR: ACKERMAN,NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 60387,39853
RPC: MDK GET VISTA DATA
RPC: MDK GET/SET RENAL DATA
RPC: MDK UTILITY
RPC: VAFCTFU CONVERT DFN TO ICN
RPC: VAFCTFU CONVERT ICN TO DFN
RPC: MD TMDWIDGET
RPC: MD TMDNOTE
RPC: MD TMDCIDC
RPC: MD TMDLEX
RPC: MD TMDENCOUNTER
RPC: GMV MANAGER
RPC: MD GATEWAY
RPC: MD TMDSUBMITU
RPC: ORWPT PTINQ
RPC: GMV PTSELECT
RPC: DG SENSITIVE RECORD ACCESS
RPC: DG SENSITIVE RECORD BULLETIN
RPC: MD TMDRECORDID
  UPPERCASE MENU TEXT: HEMODIALYSIS USER

---

[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                    CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:   This option will generate a list of Clinical Procedures
 studies.
  ROUTINE: EN2^MDSTUDL
  UPPERCASE MENU TEXT: CLINICAL PROCEDURES STUDIES LI


[1]NAME: MDCVT MANAGER
  MENU TEXT: Medicine to CP Conversion Manager
  TYPE: menu                           CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:   This is the Medicine to CP Manager menu option.  This menu
 option consists of options to assist the site in converting the Medicine
 reports to Clinical Procedures text reports.
ITEM: MDCVT SETUP                       SYNONYM: 1
  DISPLAY ORDER: 1
ITEM: MDCVT RUN                         SYNONYM: 3
  DISPLAY ORDER: 3
ITEM: MDCVT SUMMARY                     SYNONYM: 4
  DISPLAY ORDER: 4
ITEM: MDCVT DISK SPACE                  SYNONYM: 5
  DISPLAY ORDER: 5
ITEM: MDCVT LIST OF TIU TITLES          SYNONYM: 6
  DISPLAY ORDER: 6
ITEM: MDCVT TOTALS                      SYNONYM: 7
  DISPLAY ORDER: 7
ITEM: MDCVT ERROR LOG                   SYNONYM: 8
  DISPLAY ORDER: 8
ITEM: MDCVT CONVERSION LOCKOUT          SYNONYM: 9
  DISPLAY ORDER: 9
ITEM: MDCVT BUILD CONVERSION LIST       SYNONYM: 2
  DISPLAY ORDER: 2
  TIMESTAMP: 60459,53192               TIMESTAMP OF PRIMARY MENU: 59904,24363
  UPPERCASE MENU TEXT: MEDICINE TO CP CONVERSION MANA


NAME: MDCVT SETUP                      MENU TEXT: Conversion Setup
  TYPE: run routine                    CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES         X ACTION PRESENT: YES
 DESCRIPTION:   This option will bring up a setup screen for the site to setup
 the Medicine Report Conversion parameter setup.  This parameter setup allows
 the site to control which Medicine reports will be converted and which CP
 Definition and TIU title to link to.
  EXIT ACTION: K DDSFILE,DR,DA          ROUTINE: SETUP^MDCVT
  UPPERCASE MENU TEXT: CONVERSION SETUP


NAME: MDCVT RUN                        MENU TEXT: Run the Conversion Process
  TYPE: run routine                    CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:   This option will start the Medicine Report conversion to
 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).
```

---

[1] Patch MD*1.0*5 August 2006 Patch 5 menu options added.

```
   ROUTINE: EN^MDCVT
   UPPERCASE MENU TEXT: RUN THE CONVERSION PROCESS
```

NAME: **MDCVT SUMMARY**   MENU TEXT: Summary of Conversion
Process
```
   TYPE: print                           CREATOR: ACKERMAN,NIEN-CHIN
   PACKAGE: CLINICAL PROCEDURES
```
 DESCRIPTION: This option will generate a Medicine Report Conversion report.
 This report consists of a listing of all Medicine records that were processed
 in the conversion in variable pointer format and the status of the conversion
 whether the record was converted, skipped, or errored. If the record was
 converted, the total number of lines and bytes that the record was converted
 to in a TIU document will be displayed. If the record errored, the reason
why
 it errored will be displayed. If the record was skipped, the reason why it
 was skipped will be displayed.
```
   DIC {DIP}: MDD(703.9,                 L.: 0
   FLDS: [MD CONVERSION SUMMARY]         BY: [MD CONVERSION SUMMARY]
   UPPERCASE MENU TEXT: SUMMARY OF CONVERSION PROCESS
```

NAME: **MDCVT DISK SPACE**   MENU TEXT: Disk Space Requirements
```
   TYPE: run routine                     CREATOR: ACKERMAN,NIEN-CHIN
   PACKAGE: CLINICAL PROCEDURES
```
 DESCRIPTION: This option will generate a summary of the Medicine report
 conversion. This summary consists of a list of the files converted to
 Clinical Procedures, the count of records converted, the total lines and
Bytes
 the records were converted in each file.
```
   ROUTINE: SUMMARY^MDCVT
   UPPERCASE MENU TEXT: DISK SPACE REQUIREMENTS
```

NAME: **MDCVT LIST OF TIU TITLES**   MENU TEXT: List of TIU Titles Needed
```
   TYPE: run routine                     CREATOR: ACKERMAN,NIEN-CHIN
   PACKAGE: CLINICAL PROCEDURES
```
 DESCRIPTION: This option will allow the user to generate a list of Medicine
 procedures and the TIU titles needed to be created for the procedures that
 will be used for the Medicine report conversion. The PRINT NAME of the
 procedures in the PROCEDURE/SUBSPECIALTY file (#697.2) will be used in the
 display. This list will list the procedures and titles for a Medicine
Package
 Procedure, if the "Convert Y/N" parameter is set to "Yes" and the "Use TIU
 Note Title" parameter is blank in the Conversion Setup option.
```
   ROUTINE: DISP^MDSTATU
   UPPERCASE MENU TEXT: LIST OF TIU TITLES NEEDED
```

NAME: **MDCVT TOTALS**   MENU TEXT: Conversion Totals By Status
```
   TYPE: run routine                     CREATOR: ACKERMAN,NIEN-CHIN
   PACKAGE: CLINICAL PROCEDURES
```
 DESCRIPTION: This option will verify that the Medicine reports conversion
is
 complete and are in appropriate statuses.
```
   ROUTINE: TOTALS^MDCVT
   UPPERCASE MENU TEXT: CONVERSION TOTALS BY STATUS
```

NAME: **MDCVT ERROR LOG**   MENU TEXT: Error Log

```
 TYPE: print                          CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:   This option generates a log of all the errors that occurred
 with each Medicine report during the conversion.  The listing consists of the
 CONVERSION ID and ERROR MESSAGE.  The CONVERSION ID consists of the record #
 concatenated with a ";" and the global location (e.g.,"345;MCAR(699,").
  DIC {DIP}: MDD(703.9,              L.: 0
  FLDS: [MD CONVERSION ERRORS]       BY: [MD CONVERSION ERRORS]
  UPPERCASE MENU TEXT: ERROR LOG


NAME: MDCVT CONVERSION LOCKOUT       MENU TEXT: Conversion Lockout
  TYPE: run routine                  CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:   This option will let the user place a specialty/procedure or
 ALL specialty/procedures Enter/Edit and Report options 'OUT OF SERVICE' in
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             UPPERCASE MENU TEXT: CONVERSION
LOCKOUT


NAME: MDCVT BUILD CONVERSION LIST    MENU TEXT: Build Conversion List
  TYPE: action                       CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES       E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   The user will need to run this option before using the [MDCVT
 RUN], Run the Conversion Process, option.  This option will let the user
build
 the conversion list of the Medicine file records for the CP CONVERSION file
 (#703.9).  It will populate the CONVERSION LOG sub-file (#703.92) with all
 entries in the "AC" cross reference in the MEDICAL PATIENT file (#690) and
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()
  UPPERCASE MENU TEXT: BUILD CONVERSION LIST
```

[1]NAME: **MD PROCESS NOSHOW/CANCEL**
```
  MENU TEXT: Process No Show/Cancel Studies
  TYPE: run routine                  CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION:   This option is tasked to run daily.  It will check for any
 appointment that is No Show or Cancelled for CP studies in the "Pending
 Instrument Data" status.
  ROUTINE: EN1^MDWCAN
  UPPERCASE MENU TEXT: PROCESS NO SHOW/CANCEL STUDIES
```

---

[1] Patch MD*1.0*11 June 2009 Add new exported option.

[1]NAME: **MD DEVICE SURVEY TRANSMISSION**   MENU TEXT: MD Device Survey
Transmission
  TYPE: run routine   CREATOR: ACKERMAN,NIEN-CHIN
  PACKAGE: CLINICAL PROCEDURES
 DESCRIPTION: This option will run the device survey collection routine and
 capture the data for transmission.
  ROUTINE: COL^MDDEVCL
  UPPERCASE MENU TEXT: MD DEVICE SURVEY TRANSMISSION

---

[1] Patch MD*1.0*20 November 2010 New option added.

7. Cross-References

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

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

---

[1] Patch MD*1.0*6 May 2008 Cross References added.

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

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

---

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

8. Archiving and Purging

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

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

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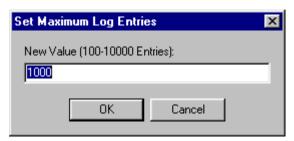

Figure 8-1

Clinical Procedures V. 1.0
Technical Manual and Package Security Guide

9.   Callable Routines

[1]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)

---

[1] Patch MD*1.0*6 May 2008 Description modified and callable routines added.

MDARR(2)=Image(s) Queue Number

MDARR(3..N)=Warnings, if error(s) exist.
Entry Point to update Clinical Procedures of the result of
the image(s) that was copied to the Imaging Server.

COMPONENT: ITIU(RESULTS,DFN,CONSULT,VSTRING)
VARIABLES: RESULTS Type: Output

RESULTS(0) will equal one of the
following (Required)
; IEN of the TIU note if successful
; or on failure one of the following status messages
; -1^No patient DFN
; -1^No Consult IEN
; -1^No VString
; -1^Error in CP transaction
; -1^Unable to create CP transaction
; -1^Unable to create the TIU document
; -1^No such consult for this patient.
DFN Type: Input
Patient IEN. (Required)
CONSULT Type: Input
Consult IEN. (Required)

VSTRING Type: Input
VString data for TIU Note. (Required)
This entry point enables VistA Imaging to retrieve/create a
TIU note for a consult for attaching images to.

COMPONENT:
$$TIUREAS(MDFN,MDOLDC,MDANOTE,MDNDFN,MDNEWC,MDNEWV,MDNTIU)
VARIABLES: MDFN Type: Input
Patient DFN in Patient File (#2).
MDOLDC Type: Input
The old consult number that the TIU note
is being re-assigned from.
MDANOTE Type: Input
The TIU Note internal Entry Number that
is being re-assigned.
MDNDFN Type: Input
The patient DFN who will be re-assigned
to the TIU document.
MDNEWC Type: Input
The new consult number that will be

re-assigned to the TIU document.

MDNEWV Type: Input

The new visit for the TIU document
assignment.

MDNTIU Type: Input

The new re-assigned TIU document internal
entry number.

$$TIUREAS Type: Output

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

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

ROUTINE: MDRPCOP   (Private Subscription)

COMPONENT: GETVST

VARIABLES: DFN Type: Input

Patient's dfn.

RESULTS Type: Output

A subscripted array that contains a list
of visits:
 1st piece has 3 pieces delimited by an
";"
Patient DFN in Patient File (#2).
    - type of visit ("A","I","V")
     - date and time
     - hospital location ien
 2nd piece - date/time of visit
(internal format)
 3rd & 4 piece - (external format)
hospital location and status.

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

ROUTINE: MDAPI1   (Private Subscription)

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

VARIABLES: RESULTS Type: Both

Input: The global ^TMP array in which to
return results. (Required)

Output: Passed by Reference
    Global array returned in the FM
DIQ call
    format:

MDARDFN Type: Input
            The patient DFN (Required).
MDSDT Type: Input
            The start date of the date range to
            return the data in. This must be in FM
            internal format. (Required).
MDEDT Type: Input
            The end date of the date range to return
            the data in. This must be in FM internal
            format. (Required).
MDFLDS Type: Input
            A list of fields from file #691.5 to be
            returned in RESULTS. MDFLDS should
            contain a list of fields delimited by ";"
            (Required).
                example: MDFLDS=".01;11;20..."

            Example API call:

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

            return:

             ^TMP("NAMESPACE",$J,file #,record
            ien_","
                ,field #,"E")=Data
             ^TMP("NAMESPACE",$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,
^TMP("MDAPI",$J,0) equals
-1^No return array global.

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

ROUTINE: MDPS1 (Controlled Subscription)
COMPONENT: CPA~MDPS1
VARIABLES: DFN Type: Input
Patient Internal Entry Number. (Required)
GMTS1 Type: Input
The ending date in inverse date format
(9999999-date/time). (Required)
GMTS2 Type: Input
The beginning date in inverse date format
(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
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. [1]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.

[1]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 Pa
ckage 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//
```

---

[1] Patch MD*1.0*14 March 2008 Screen capture added.

11. Internal Relations

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

```
NAME: MD GUI USER                         MENU TEXT: MD GUI USER
  TYPE: Broker (Client/Server)         CREATOR: ACKERMAN,NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 59331,44145
RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION
RPC: MD TMDUSER
RPC: MD UTILITIES
  UPPERCASE MENU TEXT: MD GUI USER


NAME: MD GUI MANAGER                      MENU TEXT: MD GUI MANAGER
  TYPE: Broker (Client/Server)         CREATOR: ACKERMAN,NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 59385,45622
RPC: MD TMDOUTPUT
RPC: MD TMDPARAMETER
RPC: MD TMDPATIENT
RPC: MD TMDPROCEDURE
RPC: MD TMDRECORDID
RPC: MD TMDTRANSACTION
RPC: MD TMDUSER
RPC: MD UTILITIES
RPC: MD GATEWAY
  UPPERCASE MENU TEXT: MD GUI MANAGER


[2]NAME: MD HEMODIALYSIS USER               MENU TEXT: HEMODIALYSIS USER
  TYPE: Broker (Client/Server)         CREATOR: ACKERMAN,NIEN-CHIN
  TIMESTAMP OF PRIMARY MENU: 60387,39853
RPC: MDK GET VISTA DATA
RPC: MDK GET/SET RENAL DATA
RPC: MDK UTILITY
RPC: VAFCTFU CONVERT DFN TO ICN
RPC: VAFCTFU CONVERT ICN TO DFN
RPC: MD TMDWIDGET
RPC: MD TMDNOTE
RPC: MD TMDCIDC
RPC: MD TMDLEX
RPC: MD TMDENCOUNTER
RPC: GMV MANAGER
RPC: MD GATEWAY
RPC: MD TMDSUBMITU
```

---

[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.

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.

4. Contingency Planning.

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

5. Interfacing.

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

6. Electronic signatures.

   Electronic signatures are not used in the Clinical Procedures package.

7. Menus.

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

8. Security Keys.

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

9. File Security.

NUMBER	NAME	GLOBAL NAME	DD ACC	RD ACC	WR ACC	DEL ACC	LAYGO ACC	AUD ACC
702	CP TRANSACTION	^MDD(702,	@			@		@
[1]702.001	CP_TRANSACTION_TIU_HISTORY	^MDD(702.001,	@	@	@	@	@	@
702.01	CP DEFINITION	^MDS(702.01,	@		#	#	#	
702.09	CP INSTRUMENT	^MDS(702.09,	@		#	#	#	@
703.1	CP RESULT REPORT	^MDD(703.1,	@		@	@	@	@
[2]703.9	CP CONVERSION	^MDD(703.9,	@	#	#	#	#	#
[3]704.201	HEMODIALYSIS ACCESS POINTS	^MDK(704.201,	@			@		@
704.202	HEMODIALYSIS STUDY	^MDK(704.202	@			@		@
704.209	HEMODIALYSIS SETTINGS	^MDK(704.209	@			@		@

10. References.

    There are no special reference materials for this package.

11. Official Policies.

    There are no special official policies for this package.

---

[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. [1]Vendor Interfaces

List of Vendor Interfaces

[2]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). [3]From the Home page, select **Find a Device** and then search for devices by manufacturer, by type, or by name.

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

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

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

Device Setup Instructions

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[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.
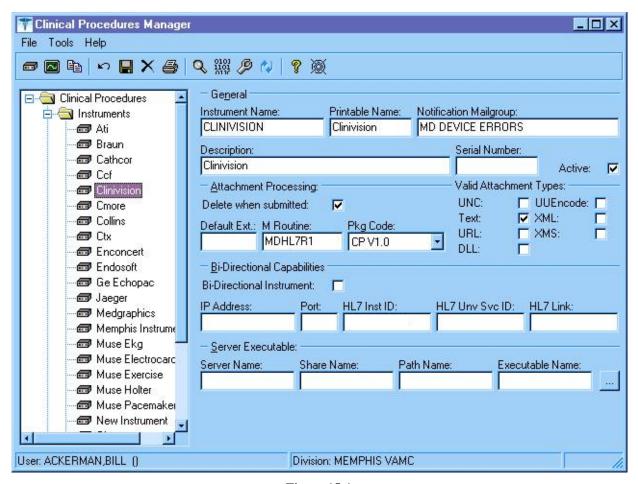
Figure 15-1

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

```
NODE: MCAR3 INST              LLP TYPE: TCP

 DEVICE TYPE: Single-threaded Server   STATE: Reading

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

 SHUTDOWN LLP ?: NO              QUEUE SIZE: 100

 RE-TRANSMISSION ATTEMPTS: 3        READ TIMEOUT: 60

 ACK TIMEOUT: 60              EXCEED RE-TRANSMIT ACTION: ignore

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

 PERSISTENT: YES              STARTUP NODE: ROU:614A01

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

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

Figure 15-2

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

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

 TYPE: subscriber              CREATOR: ACKERMAN,BILL

 PACKAGE: CLINICAL PROCEDURES

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

 IDENTIFIER: E              TIMESTAMP: 59039,32152

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

 TRANSACTION MESSAGE TYPE: ORU        EVENT TYPE: R01

 PROCESSING ID: P              LOGICAL LINK: MCAR3 INST

 VERSION ID: 2.3              RESPONSE MESSAGE TYPE: ACK

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

 RECEIVING FACILITY REQUIRED?: NO
```

Figure 15-3

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

Figure 15-4

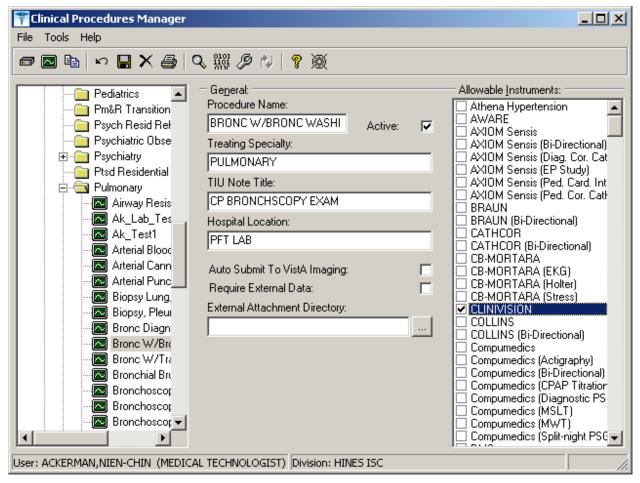[1]Figure 15-4. The device will need to be linked to a procedure in CP Manager.

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 CPManager.exe for each type of procedure, (such as Olympus (Bronchoscopy), Olympus (Colonoscopy), etc.). Please refer to the Clinical Procedures web site for the device settings for each type of procedure.

```
NODE: MCAR INST                LLP TYPE: TCP

 DEVICE TYPE: Single-threaded Server   STATE: Reading

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

 SHUTDOWN LLP ?: NO              QUEUE SIZE: 100

 RE-TRANSMISSION ATTEMPTS: 3        READ TIMEOUT: 60

 ACK TIMEOUT: 60                EXCEED RE-TRANSMIT ACTION: ignore

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

 PERSISTENT: NO                STARTUP NODE: ROU:614A01

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

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

Figure 15-5

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

---

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

```
NODE: MCAR OUT                    LLP TYPE: TCP

 DEVICE TYPE: Non-Persistent Client    STATE: Idle

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

 TASK NUMBER: 3231951             SHUTDOWN LLP ?: NO

 QUEUE SIZE: 100

 RE-TRANSMISSION ATTEMPTS: 3        READ TIMEOUT: 60

 ACK TIMEOUT: 60                  EXCEED RE-TRANSMIT ACTION: ignore

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

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

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

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

 OUT QUEUE FRONT POINTER: 244
```

Figure 15-6

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

Transmission Instructions:
No information available at this time

Manuals:
No information available at this time.

Costs:
No information available at this time.

Trouble Shooting:

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

Muse

Vendor: GE Healthcare   **Type:** ECG

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

Requirements:
This instrument requires a Muse HL7 vendor interface.

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

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

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

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

Manuals:
No information available at this time.

Costs:
No information available at this time.

---

[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.

[1]Configuration Files:
This file contains the configuration parameters for the Vmax software. The vendor should already have a copy of this file.

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

1. Start the Sensormedics V-MAX software.

2. Click on the Reports Button.

3. Select the Netlinks/IS menu from the menu bar.

4. Select TCP/IP from the File Menu on the menu bar.

5. Enter the TCP/IP and Port address to the listener that will be receiving the data from the Sensormedics V-MAX software.

6. Exit back to the Reports Screen.

---

[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 V*IST*A Imaging. This path is usually preset to C:\PDFFiles\ and should be changed to \\(PC Network name)\PDFFiles\. Also, the directory C:\PDFFiles should have Share enabled with Read, Write, Delete permissions for both Imaging and the PC on which the share directory exists.
The following instructions are for transmitting the final patient report to Clinical Procedures.
Note: If the patient whose results you wish to send is already being displayed on the monitor, you can start at step 5.

1. From the Vmax Program Manager screen click the Find Patient Button.
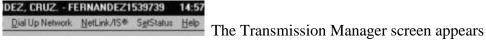
 The Find Patient window opens. No patients are displayed.

2. Set search criteria (Last Name, ID, etc.) if any, and click on F1. A list of patients matching your search criteria appears.

3. Select the patient whose results you wish to send by clicking on their name. The selected patient's name is highlighted.

4. Click the F3 button to load the selected patients results data. The Vmax Program Manager screen reappears.

5. From the Vmax Program Manager screen click the Reports Button.

 The Reports screen appears.

6. Select the report to process for this patient from the Reports selection box on the left side of the screen. The selected report appears in the upper left box as the Default Patient Report.

7. From the Menu bar click the PrintPDF button to compile the PDF report. A dialog box appears momentarily, indicating the progress of the PDF file creation.

8. From the Menu bar click Netlink/IS® to open the Netlink Transmission Manager.

 The Transmission Manager screen appears

Files to be backed up:

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

Vision folder files used in Netlink communications.

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

The following files **always exist** and have **user-modifiable** content

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

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

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

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

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

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

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

[1]Please refer to the Clinical Procedures web page for the device setup in CPManager.exe.

Manuals:
No information available at this time.

Costs:
No information available at this time.

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

[2]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.

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[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)

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

[1]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)

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

[1]Gambro

Vendor: Gambro   **Type:** Hemodialysis

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

Requirements:
This device uses Gambro's Exalis software.

Setup Instructions:

Interface Notes for Exalis to Hemodialysis

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

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[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

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

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

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

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

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

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

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

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

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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.

[1]**Broker**   Software which mediates between two objects, such as a client and a server or a repository and a requestor.

Browse   Lookup the file folder for a file that you would like to select and attach to the study. (e.g., clicking the "..." button to start a lookup).

Bulletin   A canned message that is automatically sent by MailMan to a user when something happens to the database.

Business Rule   Part of ASU, Business Rules authorize specific users or groups of users to perform specified actions on documents in particular statuses (e.g., an unsigned CP note may be edited by a provider who is also the expected signer of the note).

Class   Part of Document Definitions, Classes group documents. For example, "CLINICAL PROCEDURES" is a class with many kinds of Clinical Procedures notes under it. Classes may be subdivided into other Classes or Document Classes. Besides grouping documents, Classes also store behavior which is then inherited by lower level entries.

Consult   Referral of a patient by the primary care physician to another hospital service/ specialty, to obtain a medical opinion based on patient evaluation and completion of any procedures, modalities, or treatments the consulting specialist deems necessary to render a medical opinion.

Contingency Plan   A plan that assigns responsibility and defines procedures for use of the backup/restart/recovery and emergency preparedness procedures selected for the computer system based on risk analysis for that system.

CP   Clinical Procedures.

CP Definition   CP Definitions are procedures within Clinical Procedures.

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

[1]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.

[2]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).

[3]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.

[4]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.

[1]**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.

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

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.

[2]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.

[3]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.

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

TIU   Text Integration Utilities.

[1]**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.

[2]**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.

[3]**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.

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