MEDICINE

TECHNICAL MANUAL

Version 2.3

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Department of Veterans Affairs
Software Service
Clinical Support Product Line

Preface

This document is provided to help the Information Resource Management technical staff maintain this release of the Medicine software.

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Introduction

Functional Description

The Medicine package is a VA FileMan M based computer program to serve the needs of the Department of Veterans Affairs' Medicine Service. Medical test results are organized in a manner which enable the physician to manage patient data with greater ease, as well as furnish reports for use by others in the facility, and furnish management data on a timely basis. It is an important part of the Decentralized Hospital Computer Program (DHCP), making maximum use of the hospital data base.

The Medicine package is designed for entry, edit, and display of data from a large number of medical tests or procedures. Printed reports are available for all procedures.

The modules currently included are Cardiology, Pulmonary, Gastrointestinal (GI), Hematology, Rheumatology, Pacemaker, and Generalized Procedure. Each module has a menu designed for entering, editing, and printing reports for various procedures/tests associated with that subspecialty.

The last option on each subspecialty menu is a management menu which allows local control for the subspecialty over various files such as medications, instruments, release control, view marked for deletion, and superseded records.

Related Manuals

1. Refer to the Medicine User Manual for using screen oriented entry/edit in this package. The Medicine User Manual contains information relative to using the various options of the Medicine system modules. If services are to receive only the documentation pertaining to their module, it is important to also include the Introduction, Summary of Patient Procedures, Problem Oriented Consult, and Index sections.

2. The DHCP Lab, Order Entry/Results Reporting, Pharmacy, National Drug File, Consult/Request Tracking, Health Summary, and Adverse Reaction Tracking User Manuals may be of assistance as they contain information relative to the Medicine package.

3. The Installation Guide provides instructions for installing and implementing this version of Medicine.

4. A chapter on package security is provided in this manual for the ISO.

Implementation and Maintenance

Implementation

- ❒ Insure that the following fields of the Terminal Type file (#3.2) are defined for each terminal type at your site that is being used with the Medicine package. This is necessary to provide support for the screen edit driver routines.

  XY CRT
  Erase to End of Page
  High Intensity
  Low Intensity

- ❒ The installation killed all the Data Dictionaries for the package, so if you made any local changes to the DDs, you may want to add those changes to the DDs.

- ❒ Make sure all provider users of the medicine package have an electronic signature.

- ❒ Assign security keys to the appropriate users. (See Security Keys under the Security chapter in this manual.

- ❒ Assign menu options to the appropriate users. (See Menu Option Assignment under the Security chapter in this manual.

- ❒ When a procedure for a patient is completed (results entered into the Medicine package) and the procedure has been signed and released, the Medicine package will send a message to a mail group and/or report to a device that contains the Patient ID, Provider ID, Patient SSN, Procedure Name, and Date/Time. If your users want this capability, within the Workload Reporting Management [MCWKLDM] menu do the following:

  - ❒ Turn on the workload reporting toggle using the option Workload Reporting ON/OFF Toggle [MCWKLDT] option.

    ```
    Workload Reporting ON/OFF Toggle
    WORKLOAD REPORTING: NO// Y YES
    ```

  - ❒ Set up a list of devices for the users via the Workload Reporting Device [MCWKLDD] option. It provides a mechanism for the user to select a printing device or devices to receive message transmissions (Patient ID, Provider ID, Patient SSN, Procedure Name, and Date/Time).

    and/or

- ❒ Make sure to define a mail group for them before using the Workload Reporting Mailgroup Selection [MCWKLDG] option. It provides a mechanism for the user to select a mail group to receive message transmissions (Patient ID, Provider ID, Patient SSN, Procedure Name, and Date/Time).

```
Select WORKLOAD MAIL GROUP: CARDIOLOGY// Pulmonary
Are you adding 'PULMONARY' as a new WORKLOAD MAIL GROUP (the 2ND
   for this MEDICINE PACKAGE PARAMETERS)? Y (YES)
Select WORKLOAD MAIL GROUP: <RET>
```

- ❒ If your site is using OE/RR, turn on OE/RR using the option Enable/Disable OE/RR [MCORHOOK].

```
Select Medicine Menu Option:  Enable/Disable OE/RR
Do you want to enable Order Entry/Results Reporting? y  YES
OE/RR enabled!
```

- ❒ The rest of set-up can be done by the users who are holding the MCMANAGER key. These are generally the department or assistant department heads for each subspecialty. There are specific options within each subspecialty and/or within each procedure in a subspecialty that should be used to build the data in files for that specific subspecialty or procedure.

Release Control Options menu is found under:

Cardiology Menu
- Cath Lab menu
- ECG Menu
- Echo Lab Menu
- EP Lab Menu
- Holter Lab menu
- Exercise Tolerance Test (ETT) Menu

GI Menu
- GI Management Menu

Pulmonary Menu
- Endoscopy Menu
- Pulmonary Function Test Menu

Hematology Menu

- ❒ For those sites that want to activate Release Control and Electronic Signature, use the option Turn On Release Control/Elec. Signature. This is done for each subspecialty/procedure listed above. See Electronic Signature and Release Control in the Security chapter of this manual for more complete information. This functionality protects patient procedural data from being seen before it is completed and signed. **Once it is turned on for the subspecialty or procedure, it cannot be turned off.**

```
Select Release Control Options (Pulmonary) Option: Turn On Release
   Control/Elec. Signature
Electronic Signature is now turned on!
```

- ❒ Once you have activated Release Control and Electronic Signature, turn on the view of superseded reports using the option Allow Printing of Superseded Reports for each subspecialty and procedure above making sure the response includes "turned on". If it states "turned off", select the option again.

```
Select Release Control Options (Pulmonary) Option: Allow Printing
   of Superseded Reports
Superseded View (by non-manager) turned on
```

- ❒ For all but the Endoscopy Menu under Pulmonary Menu above, the users may convert old records that do not have a release status and assign them the status of Released Not Verified. It allows the non-key holders to view the old records but not to edit them.

```
Select Release Control Options (CATH) Option: Convert Old Records
   to Released Not Verified

Convert all records prior to: ?

All records on or prior to this date will be converted.
Any records after this date will be left as is.
Enter an exact date less than or equal to today.

Convert all records prior to: T  (MAY 15, 1996)

In order to do the conversion, you must select a provider that
has the key to ELECTROPHYSIOLOGY


Please select a Provider with a ELECTROPHYSIOLOGY key:
   PROVIDER,MISTER// <RET>
    MP      162-4      CARDIOLOGIST

Your records are being converted.  Please wait!
A mail message will be sent to you with records that are
   converted.
A dot is equal to 5 records..
```

This is an example of the mail message following the conversion:

```
Subj: Procedure File Change  [#6370] 15 May 96 11:02  7 Lines
From: <Installer of Medicine>  in 'IN' basket.   Page 1  **NEW**
------------------------------------------------------------------------
   PROVIDER,MISTER has been
assigned the responsibility for releasing
the procedure results that were released not verified
for the ELECTROPHYSIOLOGY procedure file.
Only procedures on or prior to May 15, 1996 have been updated.

The following is a list of records that has been assigned a status:
       1     MAY 12, 1996@14:42      -Draft

Records that have been assigned a draft status: 1


Select MESSAGE Action: IGNORE (in IN basket)//
```

Cardiology Management Menu [MCARMGR]

- ❒ To build a selection list of drugs for use when editing a cardiology procedure, use the option Cardiology Medication File Update.

- ❒ To build a selection list of EP interventions to be used when entering Atrial and Ventricular study data, use the option EP Intervention File Update. The interventions must be between 3 - 50 characters in length.

GI Management Menu [MCARGIMGR]

- ❒ To build a selection list of drugs for use when editing a GI procedure, use the option GI Medication File Update.

- ❒ To build a selection list of endoscopic instruments, use the option Endoscopic Instrument Enter/Edit.

- ❒ To build a selection list of sphincterotomes, use the option Sphincterotome Enter/Edit.

- ❒ To build a selection list of stents, use the option Stent Enter/Edit.

- ❒ To build a selection list of gastrostomy tubes, use the option Gastrostomy Tube Enter/Edit.

- ❒ To build a selection list of jejunostomy tubes, use the option Jejunostomy Tube Enter/Edit.

Pulmonary Management Menu

- ❒ To build a selection list of drugs for use when editing a pulmonary procedure, use the option Pulmonary Medication Update.

- ❒ To build a selection list of instruments, use the option Pulmonary Instrument Enter/Edit.

- ❒ To edit the PFT predicted value formulas and associate male or female to the formula, use the options Edit Predicted Value Formulas and Associate Predicted Value Formulas under the PFT Predicted Values Formulas menu. The managers may want to review the formulas that are already available before editing.

Generalized Procedure Menu

- ❒ To build a selection list of local procedures/subspecialties for use at the GENERALIZED PROCEDURE/CONSULT SUBSPECIALTY prompt when entering a generalized procedure, use the option Procedures/Subspecialties Definition Enter/Edit under the Generalized Procedure Management menu.

Maintenance

Besides the above implementation instructions that may be used to update and maintain the package files, the following information may be helpful for continued maintenance of the package.

Name/Number Spacing

The namespace assigned to the Medicine package is MC. All routines, globals, options, edit and print templates start with these characters. All routines generated from templates have the namespace MCARO, MCOB, MCOE, or MCOP. All files use the ^MCAR global namespace.

The Medicine package number space is 690 through 704. The package currently uses 690 through 701. Number spaces 702 through 704 are reserved for future growth.

Journalling

It is highly recommended that the ^MCAR global be journalled.

Routines

The compiled print routines occupy approximately 300 K bytes and the package routines occupy approximately 447 K bytes.

Screen Handler Files

The routines MCARD* are modified VA FileMan routines that run Screen Handler for the Medicine package. (The * indicates all routines beginning with the given letters.)

The Medicine screens themselves are saved in File 697.3 Medicine Screen (User).

Through VA FileMan, IRM can find the following information:

1) Name of the Screen
2) Lines allowed in the screen: This is always 15, to allow the bottom half of the screen to be used for Commands, Help, etc. Note that at any time ^C can be typed to reprint the Command menu.
3) Previous screen: This might be the parent of a sub-screen, or if you are in Screen 2 of 2, it might be Screen 1 of 2.
4) Right-linked screen: This might be a sub-screen, or if you are in Screen 1 of 2, Screen 2 of 2 would be right-linked.
5) DD number
6) Label

   These are the fields from the file:

   A) Starting XY coordinates of the label of the field
   B) Field Length
   C) Ending XY coordinates of the label of the field
   D) Attribute #: This is the number on the screen to the left of the label.
   E) Type Similar to the descriptor in the DD: It allows the screen management system to decide whether the data is a set of codes, free text, pointer file, etc. An example would be: 691.18PM.
   F) Post- and Pre-Action Code: This is similar to entry and exit actions on options. There are many places where the package sets fields dependent on the type of procedure.

      The following example of a Pre-action code is taken from MCGENDO100:

      ```
      S DJBLO=$S(MCARGNAM="COL":"5,8,9",
      MCARGNAM="LAP":"1,2,3,4,8,9",MCARGNAM="ERC":
      "1,2,3,4,5",1:"1,2,3,4,5,8,9") D ^MCARDBL
      ```

      In the example shown, MCARGNAM is the name of the procedure and DJBLO is the variable set to show which fields should be asterisked out. If the procedure is "COL" (colonoscopy), the user will not have to enter fields 5, 8, and 9. They show as *********.

   G) Multiple screen name

      All multiples have a separate screen name, however NOT all multiples have a sub-screen. If only the .01 field of the multiple is asked for, the user WILL NOT be moved to a sub-screen, however, if more than one field is required, a sub-screen will be provided.

There are a few other fields that have not been previously mentioned. They include Security, Description, File Level, Highest # used, Rd (only), and Default Value. The MCARD* routines and the 697.3 files SHOULD NOT BE MODIFIED!

Reindexing

A post-init killed all the cross references and rebuilt them in all the files.

Security

File Security

#	File Name	DD	RD	WR	DEL	LAYGO	AUDIT
690	Medical Patient	@					@
690.1	Medicine Package Parameters	@					@
690.2	Medicine View	@					@
690.5	ASTM	@					@
690.97	MCQ Polling	@					@
690.99	*New Person Conversion	@					@
691	ECHO	@					@
691.1	Cardiac Catheterization	@					@
691.5	Electrocardiogram (EKG)	@					@
691.6	Holter	@					@
691.7	Exercise Tolerance Test	@					@
691.8	Electrophysiology (EP)	@					@
691.9	Atrial Study	@					@
692	Ventricular Study	@					@
693	Medical Description	@					@
693.2	Interpretation	@					@
693.3	ECG Interpretation	@					@
693.5	Recording Site	@					@
593.6	EP Intervention	@					@
694	Hematology	@					@
694.1	Indication	@					@
694.5	Cardiac Surgery Risk Assessment	@					@
694.8	Procedure Term	@					@
695	Medication	@					@
695.1	Regional Wall Motion	@					@
695.3	Cath Procedure	@					@
695.4	Past History and Risk Factor	@					@
695.5	Symptom	@					@
695.6	Heart Catheter	@					@
695.8	Reason (Medicine)	@					@
695.9	Normality of Coronary Vessel	@					@
696	Segment of Coronary Arteries	@					@
696.1	Percentage Lesion	@					@
696.2	Lesion Morphology	@					@
696.3	Morphology of Distal Vessel	@					@
696.4	Bypass Graft Segment	@					@
696.5	Left Ventriculography	@					@
696.7	Mitral Regurg on LV Gram	@					@
696.9	Complication	@					@
697	Anatomy	@					@
697.1	Referring Physician/Agency	@					@
697.2	Procedure/Subspecialty	@					@
697.3	Medicine Screen (User)	@					@
697.5	Medical Diagnosis/ICD Codes	@					@
698	Generator Implant	@					@
698.1	V Lead Implant	@					@
698.2	A Lead Implant	@					@

#	File Name	DD	RD	WR	DEL	LAYGO	AUDIT
698.3	Pacemaker Surveillance	@					@
698.4	Pacemaker Equipment	@					@
698.6	Pacemaker Manufacturer	@					@
698.9	Non-Magnet ECG Rhythm	@					@
699	Endoscopy/Consult	@					@
699.48	Instrument	@					@
699.5	Generalized Procedure/Consult	@					@
699.55	Gross	@					@
699.57	Modifier	@					@
699.6	Diag/Therap Intervent	@					@
699.7	Endoscopic Device	@					@
699.81	Results	@					@
699.82	Consultation	@					@
699.83	Location of Pain/Pneumonias	@					@
699.84	Disease Evaluation	@					@
699.85	Followup Device/Therapy	@					@
699.86	Surveillance	@					@
699.88	Non-Endoscopic Procedure	@					@
700	Pulmonary Function Tests	@					@
700.1	PFT Predicted Values	@					@
700.2	PFT Formula	@					@
700.5	Medicine Auto Instrument Interface Summary	@					@
701	Rheumatology	@					@

Menu Option Assignment

The overall menu for use by IRM is the Medicine Menu [MCMEDICINE SITE MGR MENU]. It contains all the user menus plus the Enable/Disable OE/RR [MCORHOOK] option, Summary of Patient Procedures [MCARSUMMARY] option, and the Workload Reporting Management [MCWKLDM] menu.

The Summary of Patient Procedures [MCARSUMMARY] option is also exported under each subspecialty user menu. Only users with the MCMANAGER key for the subspecialty will see the management and release control menus. Users must have the key that goes with the subspecialty (See Security Keys below). The user menus should be assigned according to specialty as follows:

Cardiology:	MCARUSER
GI:	MCARGIUSER
Pulmonary:	MCARPULMUSER
Pacemaker:	MCARPACEUSER
Hematology:	MCARHEMUSER
Rheumatology:	MCRHUSER
Generalized Procedure:	MCGENERIC

Electronic Signatures

Electronic signatures are used to maintain the integrity of reported procedure results. The provider uses an electronic signature to authorize the release of the information to other users of the package. Editing of a record prior to release is controlled by limiting access to the record. Once released, the record cannot be edited. Make sure all physician users have an electronic signature.

Security (Release Control) Keys

Security keys for each module in the Medicine package allow the user to view, release, and sign draft procedures within that module. A key is not needed to edit procedures in the draft mode. The MCMANAGER key allows the department head or assistant department head to view procedures that are Draft, Superseded, or that have been marked for deletion.

Assign the following security keys:

Module	User Keys	Dept./Assist. Dept. Heads
Cardiology	MCKEYCARD	MCMANAGER
GI	MCKEYGI	MCMANAGER
Pulmonary	MCKEYPULM	MCMANAGER
PFT	MCKEYPFT	MCMANAGER
Hematology	MCKEYHEM	MCMANAGER

Release Control

Release control and electronic signatures allow the users of the Medicine package to have medical procedure records with a status of Draft, Problem Draft, Released Not Verified, Released Off-line Verified, Released On-line Verified or Superseded.

Draft: Unless designated otherwise, all records have draft status once they are entered. A record with Draft status may be edited or deleted. An audit trail is kept of the last person to have edited the record. It is not released to non-key holders for viewing or printing in report form.

Problem Draft: A record may be designated as Problem Draft if the information is incomplete or inaccurate. This label should alert the provider that there is some problem with the information that needs to be resolved. The record may be edited or deleted. An audit trail is kept of the last person to have edited the record. It is not released to non-key holders for viewing or printing in report form.

Released Not Verified: This option is used when a record may need to be released before the information has been verified or when an authorized signature is not available. A record that has been released not verified can be marked for deletion, printed, or verified either on- or off-line at another time. An internal record is made of the person releasing the record.

Released Off-line Verified: This option is used when the provider authorizes release of the record by signing a printed copy of the report rather than the on-line version. Another key holder is designated to make the electronic release. Both persons are recorded in the release record.

Released On-line Verified: After reviewing a record on screen, the provider may choose to release it immediately. When this option is chosen, the provider must enter a pre-designated, unique code known as an electronic signature to authorize the release of the record. Once released, the record can no longer be edited or deleted and is available to all users in report form.

Superseded: Occasionally, information in a verified record may need to be modified. A copy of the original record must be made using the Superseded option. The new copy is considered a draft which can be edited prior to release. The original record remains unchanged in the file. The manager controls availability of superseded records through an option on the Manager's menu. After superseding a record, the user is automatically put into Enter/Edit mode for the new record. The new record must be released either on-line or off-line at this time or it will be deleted and the old record will remain unchanged.

The status of a record and the key that a user holds will determine the functions the user will be able to perform.

When the record status is...	The holder of... No keys can...	Subspecialty Provider Key can...	Both the Manager Key and the Subspecialty Key can...
DRAFT	Edit* Delete*	Edit Delete View/Print Assign New Status	Edit Delete View/Print Assign New Status
PROBLEM DRAFT	Edit* Delete*	Edit Delete View/Print Assign New Status	Edit Delete View/Print Assign New Status
RELEASED NOT VERIFIED (Optional)	View/Print	Mark for Deletion View/Print Assign New Status Supersede	Mark for Deletion View/Print Assign New Status Supersede
RELEASED OFF-LINE VERIFIED	View/Print	View/Print Assign New Status Supersede	View/Print Assign New Status Supersede
RELEASED ON-LINE VERIFIED	View/Print	View/Print Assign New Status Supersede	View/Print Assign New Status Supersede
SUPERSEDED			View/Print Allow View/Print

*Preventing non-key holders from editing and deleting records should be handled by excluding edit and delete menu options from non-key holders.

Release Control Options

The options require that the user hold the Manager's key [MCMANAGER] and the specific module key.

Turn On Release Control/Elec. Signature

This is a one time option that turns on release control/electronic signature. This option should only be used by the manager of the department. Once this option is executed, there is no way to turn it off. Once it is turned on, the non-key holders will not be able to print a record until it is released.

Convert Old Records to Released Not Verified

This option converts old records or records that do not have a release status to Released Not Verified. It allows the non-key holders to view the old records but not to edit them. Before executing this option, turn on release control/electronic signature. All records upgraded using this option are assigned a status of Released Not Verified. If mass updating of records is not desirable, individual records may be updated by using the Enter/Edit option to assign them a Draft Status. Records that already have a release control status will not be affected. The responsibility for upgrading old records should be assigned to only one person.

Print Superseded Reports

This option allows you to display or print a superseded report.

Allow Printing of Superseded reports

This option is a switch that allows or disallows the non-managers to view superseded records from the print options. By switching this option to on, superseded records can be viewed from the print option. By switching this option to off, superseded records will be removed from the print option.

Print Reports that are Marked for Deletion

This option allows the manager to display or print reports that are marked for deletion.

Status Report

This option provides the manager with a report of all procedure statuses. It allows the user to select a range of dates and allows either Release statuses, Draft statuses or both.

The release control previously used by Hematology and Pulmonary is now obsolete. Records which were given a status of Released in Medicine V. 2.0 will be assigned Released Not Verified status. Records that had Non-Released status will be assigned Draft status.

In this Module…	Release Control options are found on this menu…
Cardiology	Cath Lab Menu ECG Menu Echo Menu EP Menu Holter Lab Menu Exercise Tolerance Test menu
Gastrointestinal	GI Management Menu
Pulmonary	Endoscopy Menu Pulmonary Function Menu
Hematology	Hematology Menu

Routine List

```
MCARAM     MUSE AUTO INSTRUMENT DATA LOAD INTO DHCP
MCARAM0    MUSE AUTO INSTRUMENT REINITIALIZE
MCARAM0A   MUSE AUTO INSTRUMENT REINIT-EXT DATE
MCARAM0B   MUSE AUTO INSTRUMENT REINIT-TRAN CORRES EKG
MCARAM0C   MUSE AUTO INSTRUMENT REINIT-NO DIAG
MCARAM0D   MUSE AUTO INSTRUMENT REINIT-NONDHCP NAME
MCARAM0E   MUSE AUTO INSTRUMENT REINIT-NOTED REC IN ERR
MCARAM0F   MUSE AUTO INSTRUMENT REINIT-MISS TRAN REC
MCARAM0G   MUSE AUTO INSTRUMENT REINIT-MISS EKG REC
MCARAM0H   MUSE AUTO INSTRUMENT REINIT-REMOVE RELEASE STATUS, ADD
           CONFIRMATION STATUS
MCARAM1    MUSE TRANSFER LAB DATA TO LOCAL
MCARAM2    MUSE TRANSFER LAB DATA TO LOCAL
MCARAM3    MUSE TRANSFER LAB DATA TO LOCAL
MCARAM4    MUSE TRANSFER LAB DATA TO LOCAL
MCARAM5    MUSE TRANSFER LOCAL DATA INTO DHCP
MCARAM6    MUSE LOOKUP IN DHCP
MCARAM7    MUSE SUMMARY LOOKUP AND FILE IN DHCP
MCARAML    MUSE AUTO INSTRUMENT RETRANSMISSION LIST
MCARAMLA   MUSE AUTO RETRANSMISSION-TRAN INCOMP
MCARAMLB   MUSE AUTO INSTRUMENT RETRANSMISSION-TRAN DATE
MCARAMLC   MUSE AUTO INSTRUMENT RETRANSMISSION NO TRAN
MCARAMLD   MUSE AUTO INSTRUMENT RETRANSMISSION-NO EKG DIAG
MCARAMLE   MUSE AUTO INSTRUMENT RETRANSMISSION-TRAN ERRORS
MCARAMLF   MUSE AUTO INSTRUMENT RETRANSMISSION-NODHCP NAME
MCARAMLG   MUSE AUTO INSTRUMENT RETRANSMISSION-EKG CORR
MCARAMLH   MUSE AUTO INSTRUMENT RETRANSMISSION-CONVERT
MCARAP     MEDICINE AUTO INSTRUMENT INTERFACE SUMMARY PRINT
MCARAP1    MEDICINE AUTO INSTRUMENT INTERFACE SUMMARY PRINT
MCARAP2    MEDICINE AUTO INSTRUMENT INTERFACE SUMMARY PRINT
MCARASE    MEDICINE AUTO INSTRUMENT SETUP VAR FOR DATA COLLECTION
MCARATVE   ENTER/EDIT CARDIAC PROCEDURES
MCARBSA    COMPUTE BODY SURFACE AREA .001*71.84*((WT/2.2)**.425*
           (HT*2.5)**.725)
MCARCNV0   CONSULT CONVERSION 699 >>>===> 699.5
MCARCNV1   CONSULT CONVERSION 699 >>>===> 699.5
MCARCNV2   CONSULT CONVERSION 699 >>>===> 699.5              Deleted
MCARCNV3   REMOVE 'M' FROM APPLICATION PACKAGES'             at
            USE FIELD (50,63)                               site
MCARCNV4   MEDICINE VIEW FILE (#690.2) CLEAN-UP
MCARCNV5   MEDICINE VIEW FILE (#690.2) CLEAN-UP
MCARD      SCREEN HANDLER
MCARD1     FILL V() AFTER SELECTION
MCARDBL    UTILITY TO ASTERIK OUT ENTRIES ON SCREEN AND FUNCTIONS
MCARDC     MODIFIED DIC ROUTINE FOR MEDICINE SCREENS
MCARDC1    READ X, SET UP ID'S, ASK OK
MCARDCM    MODIFIED DICM ROUTINE FOR MEDICINE SCREENS
MCARDCM1   MODIFIED DICM1 ROUTINE FOR MEDICINE SCREENS
MCARDCM2   MODIFIED DICM2 ROUTINE FOR MEDICINE SCREENS
MCARDCM3   MODIFIED DICM3 ROUTINE FOR MEDICINE SCREEN
MCARDCN    MODIFIED DICN ROUTINE FOR MEDICINE SCREENS
MCARDCN1   MODIFIED DICN1 ROUTINE FOR MEDICINE SCREENS
MCARDCQ    MODIFIED DICQ ROUTINE FOR MEDICINE SCREENS
MCARDCQ1   HELP FROM DIC (MODIFIED FOR MEDICINE SCREENS)
MCARDHLP   HELP FOR SCREEN INPUT
MCARDML    MULTIPLE STACK DRIVER
MCARDNJ    INPUT TO SCREEN
```

MCARDNJ1	INSERT AND LOOK UP
MCARDNJ2	FUNCTION FOR DISPLAY ONLY
MCARDNK	SCREEN INPUT - KILLS (@)
MCARDNQ	SCREEN INPUT - QUESTIONMARKS
MCARDNQ2	SCREEN INPUT - QUESTIONMARKS (PART 2)
MCARDPAR	INITIATE SCREEN VARIABLES
MCARDPL	DISPLAY SCREEN
MCARDSE	MEDICINE SCREEN HANDLER-PROCESS FIELD
MCARDSS	DECISION SUPPORT INTERFACE
MCARE	EDIT ROUTINES
MCARE1	MAKES ENTRIES IN MCQ POLLING FILE
MCARED	ENTER/EDIT CARDIAC PROCEDURES-PROCESS A NEW PROCEDURE DATE
MCAREH	ENTER/EDIT CARDIAC PROCEDURES-HELP
MCARENV	MEDICINE PACKAGE INSTALLATION-ENVIRONMENT CHECK ROUTINE #1
MCARENV1	MEDICINE PACKAGE INSTALLATION-ENVIRONMENT CHECK ROUTINE #2
MCAREO	ENTER/EDIT CARDIAC PROCEDURES-ORDER ENTRY HOOKS
MCARFX22	DELETE REMARKS (A-FIB) FIELD
MCARFXDA	FIX DATA **Deleted at site**
MCARGD	DIAGNOSIS FILTER
MCARGE	GI ENTER/EDIT
MCARGEA	GI ENTER/EDIT-DISPLAY ALLERGY INFO
MCARGEO	GI ENTER/EDIT-ORDER ENTRY/IMAGING HOOKS
MCARGES	SCREEN ENTER/EDIT-ENDOSCOPY,HEMATOLOGY,PACEMAKER
MCARGP	ENDOSCOPY REPORTS
MCARGPA	PRINT ALLERGY INFO ON 'MCAROGH' PRINT TEMPLATE
MCARGS	SPECIAL CODE FOR PRINT TEMPLATES
MCARHP	PRINT HEMATOLOGY REPORTS
MCARINS	Installation routine for Medicine **Deleted at site**
MCARLV	MEDICINE PACKAGE ECHO LVINDEX
MCARP	PRINT ROUTINES
MCARP1	PRINT ROUTINES TWO
MCARPAC	PRINT ROUTINES FOR PACEMAKER
MCARPACE	COMBINED GENERATOR,LEAD ENTER/EDIT
MCARPAL	PACEMAKER ACTIVE PATIENT LIST
MCARPCE	ENTER/EDIT ROUTINE FOR PACEMAKER SURVEILLANCE
MCARPCS	AUTO TRANSMIT PACEMAKER REPORT-QUEUE
MCARPCS1	AUTO TRANSMIT PACEMAKER REPORT-LOAD
MCARPCS2	AUTO TRANSMIT PACEMAKER REPORT-LOAD
MCARPCS3	AUTO TRANSMIT PACEMAKER REPORT LOAD
MCARPCS4	AUTO TRANSMIT PACEMAKER REPORT LOAD
MCARPOS1	MEDICINE PACKAGE INSTALLATION FIRE OFF MESSAGE TO DEVELOPERS
MCARPOST	POST INIT **Deleted at site**
MCARPRE	MEDICINE PACKAGE INSTALLATION PREINIT AFTER USER COMMIT
MCARPROC	STORE PROCEDURES IN MEDICINE PATIENT FILE
MCARPS	PROCEDURE SUMMARY REPORTS
MCARPS1	SUMMARY OF PATIENT PROCEDURES (2)
MCARSRE	CATH SURGICAL RISK ENTER/EDIT
MCARSRP	CATH SURGICAL RISK REPORT
MCARSRR	CATH SURGERY RISK COMPUTATION
MCARSUP	MEDICINE PACKAGE MANAGEMENT OPTIONS
MCARVCHK	MEDICINE VIEW FILE SANITY CHECK
MCBLD	TERM: SUBSPECIALTY ALLIGNER **Deleted**
MCBLD1	MEDICINE VIEW FILE UPDATE **at**
MCBLD2	ASTM FILE UPDATE **site**
MCBPFTP1	PFT BRIEF REPORT-DEMO INFO
MCBPFTP2	PFT BRIEF REPORT-VOLUMES
MCBPFTP3	PFT BRIEF REPORT-FLOWS
MCBPFTP4	PFT BRIEF REPORT-ABGS
MCBPFTP5	PFT BRIEF REPORT-SPECIAL STUDIES (PT 1)

MCBPFTP6	PREDICTED VALUES FOR SPECIAL STUDIES	
MCBPFTP7	PFT BRIEF REPORT-SPECIAL STUDIES (PT 2)	
MCDBELM	save and load util.	
MCDBSAVE	save and load util.	
MCDIE001	KILL ALL VARIABLES	
MCDIE002	KILL ALL VARIABLES	
MCDIE003	KILL ALL VARIABLES	
MCDIEDIE	KILL ALL VARIABLES	
MCDUP1	Repoints the pointed to file and removes the dup	
MCDUPE	Executed routine for dupr.	
MCDUPM	DUPLICATION FINDER	
MCDUPP	Post process for the Duplication	
MCDUPR	Reporting of the duplicates	
MCEF	FILEMAN ENTER/EDIT OF MED PROCS	
MCENDIQ1	GET EXTERNAL FIELD VALUE	
MCENV00	ENVIRONMENT CHECK ROUTINE	
MCENVCHK	ENVIROMENT CHECK ROUTINE	
MCEO	MED PROC EDIT, OE INTERFACE	
MCEPROC	Printer driver	
MCESCON3	CONVERT RELEASE CODES TO NEW CODES	
MCESCONV	Convert PFTs to Electronic Signature	
MCESEDT	ELECTRONIC SIGNATURE PART 1	
MCESEDT2	ELECTRONIC SIGNATURE EDITS PART 2	
MCESHLP	Release Control Help	
MCESLIST	This routine will list reports by release status	
MCESMFDV	Manager Options for Mark for Deletion	
MCESPRT	ELECTRONIC SIGNATURE PRINT	
MCESSCR	Sets up the screening for Electronic Signature	
MCFIXOEP	PROTOCOL DELETION	
MCFSIZE	SIZE PROCEDURE FILES	**Deleted at site**
MCFX005	RECOMPILE ALL OF THE MEDICINE PRINT TEMPLATES	
MCGBL	PROGRAM TO DETERMINE BLANK FIELDS FOR GI	
MCL	POPULATE LAB FILES	
MCL610	TOPOGRAPHY FIELD FILE (#61) DATA	**Deleted at site**
MCL611	MORPHOLOGY FIELD FILE (#61.1) DATA	
MCL613	FUNCTION FIELD FILE (#61.3) DATA	
MCL615	PROCEDURE FIELD FILE (#61.5) DATA	
MCLPOST	CHECK THE LAB INIT	
MCLPOST1	Corrects and Updates lab file	
MCMAG	IMAGING LINK	
MCMAGDSP	IMAGING INTERFACE	
MCMENUDE	Check new person file for dangling pointers	
MCNMDUP	Duplicate "NM" node routine for Medicine	
MCNP	MEDICINE NEW PERSON CONVERSION REPORT	
MCNP0	CONVERT MEDICINE FILE PTRS FROM 3,6,16 TO 200	**Deleted at site**
MCNP1	CONVERT MEDICINE FILE PTRS FROM 3,6,16 TO 200	
MCNP2	CONVERT MEDICINE FILE PTRS FROM 3,6,16 TO 200	
MCNP2CHK	UNIQUE PROVIDER NAME PRINT	
MCNP2X	NEW PERSON CONVERSION FILE XREF	
MCNP3	CONVERT MEDICINE FILE PTRS FROM 3,6,16 TO 200	
MCNP4	MEDICINE NEW PERSON CONVERSION RPT, OPTION 1 (SUMMARY)	**Deleted at site**
MCNP5	CONVERT MEDICINE FILE PTRS TO NEW PERSON FILE - PROCESS	
MCNPSET	MAKE AN ENTRY IN ^MCNP("CV")	
MCNPT	NEW PERSON CONVERSION-ALLOW TASKING WITHOUT PRINTING	
MCNTEG	PACKAGE CHECKSUM CHECKER	
MCNTEG0	PACKAGE CHECKSUM CHECKER	
MCNTEG1	PACKAGE CHECKSUM CHECKER	**Deleted at site**
MCNTEG2	PACKAGE CHECKSUM CHECKER	
MCNTEG3	PACKAGE CHECKSUM CHECKER	

MCNTEG4	PACKAGE CHECKSUM CHECKER	
MCNTEG5	PACKAGE CHECKSUM CHECKER	
MCOR	OERR/MEDICINE PACKAGE LINKS	
MCOR1	OERR/MEDICINE PACKAGE LINKS (PART 2)	
MCOREX	OERR/MEDICINE DATA EXTRACT UTILITY	
MCORMN	Front-end for Health Summary	
MCORMN0	HL7 MESSAGE BUILDER	
MCORMN01	HL7 MESSAGE BUILDER PART 2	
MCORMN1	BUILD INTERMEDIATE DATA SET	
MCORMN2	NON-INTERACTIVE INQUIRY	
MCPARAM	CHECK FOR MEDICINE PARAMETERS	
MCPFTE	PULMONARY FUNCTION TEST ENTER/EDIT	
MCPFTI	PFT INTERPRETATION ENTRY	
MCPFTIC	COMPUTER GENERATED PFT INTERPRETATION	
MCPFTP	PULMONARY FUNCTION TEST PRINT	
MCPFTP1	PFT REPORT-DEMO INFO	
MCPFTP1A	PFT Report Demo Info Exit Routine	
MCPFTP2	PFT REPORT-VOLUMES	
MCPFTP2A	PFT REPORT-FLOWS	
MCPFTP3	PFT REPORT-ABGS	
MCPFTP4	PFT REPORT-SPECIAL STUDIES (PT 1)	
MCPFTP4A	PREDICTED VALUES FOR SPECIAL STUDIES	
MCPFTP5	PFT REPORT-SPECIAL STUDIES (PT 2)	
MCPFTR	RELEASE A PFT REPORT	
MCPFTSS	PFT SPECIAL STUDIES ANCILLARY	
MCPMV	Medicine View file data	
MCPMVA	ASTM sub-file data	
MCPOS00	POST INSTALLATION DRIVER	
MCPOS01	SEARCH AND DELETE	
MCPOS01A	Kill all cross reference in a file	
MCPOS01B	Kill all cross reference in a file	
MCPOS01C	Kill all cross reference in a file	
MCPOS01D	Kill all cross reference in a file	
MCPOS01E	Kill all cross reference in a file	
MCPOS01F	Kill all cross reference in a file	
MCPOS01G	Kill all cross reference in a file	
MCPOS02	NEW PERSON CONVERSION	
MCPOS02A	NEW PERSON CONVERSION EXCEPTION REPORT	
MCPOS03	INSTRUMENT FLAT-->MULT CONVERSION FILE #699	
MCPOS04	CONSULT CONVERSION 699 >>>===> 699.5	
MCPOS04A	CONSULT CONVERSION 699 >>>===> 699.5	
MCPOS05	MAIL GROUP CREATION	
MCPOS06	FIX SUB DD NUMBER IN DATA NODES	
MCPOS07	UPDATE POINTERS TO LAB FILES	
MCPOS08	PUT CARDIOLOGY CODE INTO MULT IN 695	
MCPOS09	MOVE MICRO DESC REMARKS INTO WP FIELD	
MCPOS0A	TERM:SUBSPECIALTY ALLIGNER	
MCPOS0B	Medicine View file update	
MCPOS0C	ASTM file update	
MCPOS0D	UPDATE FILE SECURITY	
MCPOS0E	RESTORE LOCALLY DEFINED PROCEDURES TO THE MED VIEW FILE	
MCPOS0Z	CLEAN-UP XTMP	
MCPOST	POST INIT9.9 TO 699	**Deleted**
MCPOST0	VERIFIED THAT THE INITS RAN	**at site**
MCPOST1	POST INIT TO CLEAN UP STATIC FILE SPELLING ERRORS	
MCPRE00	PRE INSTALLATION DRIVER	
MCPRE01	PROTOCOL DELETION	
MCPRE02	FIX DATA IN PROCEDURE/SUBSPECIALTY FILE	
MCPRE03	REMOVE 'M' FROM APPLICATION PACKAGES' USE FIELD (50,63)	
MCPRE04	MCNP GLOBAL CLEANUP	

MCPRE05	CLEAN UP DATA IN INDICATION FILE (#694.1)
MCPRE06	ICD CODE MULTIPLE CLEANUP IN MEDICAL DIAGNOSIS/ICD CODES FILE (#697.5)
MCPRE07	KILL RECORDS WITH NO ZERO NODES
MCPRE08	PFT PREDICTED VALUES FILE (700.1) CLEANUP
MCPRE0Z	DD CLEAN UP
MCPRE1	Process which removes archaic Medicine Options - **Deleted at site**
MCPREDT	ENTER/EDIT PROCEDURE/SUBSPECIALTY
MCPREDUP	MEDICINE PACKAGE PRE INIT TO RUN DUPLICATE CLEAN UP
MCPRESU1	DELETES NATIONAL FIELDS ONLY **Deleted**
MCPRESU2	MOVE A FIELD TO A MULTIPLE **at site**
MCPRESUB	CONVERT SUBFILE HEADER NODE
MCPSOP	PHARMACY PATIENT PROFILE (MEDICINE VERS)
MCPTF	Medicine Term File Data
MCRH1	RHEUMATOLOGY PATIENT HISTORY EDIT
MCRH2	RHEUMATOLOGY ICD CODE UPDATE FOR QMAN
MCRINDEX	Reindex the Medicine Package **Deleted at site**
MCU	GENERAL UTILITY FOR MEDICINE
MCWORKLD	Workload reporting
MCXCATH	This is a quit statement for del nodes of Echo

File List

690	Medical Patient	This file stores Medicine patients' DINUM to the Patient file and also keeps a cross reference of procedures done on a patient.
690.1	Medicine Package Parameters	This file contains information on the existence of related DHCP packages (OE/RR, PCC, Imaging) at this site.
690.2	Medicine View	This file allows Order Entry and Health Summary to pick-up the fields within the Medicine Data base.
690.5	ASTM	This file contains ASTM codes for the HL7 messaging builder for Medicine.
690.97	MCQ POLLING	This file supports the loading of Patient Care Component (PCC) visit related procedure information for sites running QueryMan.
690.99	*New Person Conversion	This file contains the list of entries that were converted.
691	ECHO	This file stores data on Echo procedures done on a patient.
691.1	Cardiac Catheterization	This file stores the data on Catheterizations done on patients.
691.5	Electrocardiogram (EKG)	This file stores data on EKGs done on a patient.
691.6	Holter	This file stores data for Holter tests done on a patient.
691.7	Exercise Tolerance Test	This file stores data on Exercise Tolerance Tests done on a patient.
691.8	Electrophysiology (EP)	This file stores (along with Atrial Study and Ventricular Study files) data on Electrophysiologies done on a patient.

691.9	Atrial Study	This file stores data for Atrial studies done for a particular EP procedure. Data is entered into this file through EP options.
692	Ventricular Study	This file stores data for Ventricular studies associated with a particular EP. Data to this file is entered through the EP options.
693	Medical Description	This file stores a list of allowable Echo conclusions for use in the Echo option and of Hematology Bone Marrow descriptions.
693.2	Interpretation	This file holds interpretations for Cardiac Catheterization and PFT studies.
693.3	ECG Interpretation	This file holds the interpretations for ECG procedures.
693.5	Recording Site	This file holds the placement sites for use in cardiac catheterization.
693.6	EP Intervention	This file holds the allowable interventions for EP procedures.
694	Hematology	This file stores results of Bone Marrow Aspirates and Bone Marrow Biopsies.
694.1	Indication	This file holds the indication for procedures for the various medical procedures.
694.5	Cardiac Surgery Risk Assessment	This file holds data for use on the Surgical Risk Assessment form.
694.8	Procedure Term	This file provides linkage between Medicine procedures and various standard coding schemes. It also allows procedures to be called by the term of the users choice.
695	Medicine	This file stores the medications used in the various Medicine procedures.
695.1	Regional Wall Motion	This file stores the regional wall motions associated with ECHO procedures.

695.3	Cath Procedure	This file stores the various procedure types of cardiac catheterization.
695.4	Past History and Risk Factor	File holds the various types of risk factors that can affect a procedure.
695.5	Symptom	This file stores the various symptoms associated with the various medical procedures.
695.6	Heart Catheter	This file stores the various types of catheters used in catheterization.
695.8	Reason (Medicine)	This file stores the various reasons for stopping of Exercise Tolerance Tests, the reason for Generator/Lead changes for Pacemaker, and the reason for transmitting a Pacemaker report to the National Center.
695.9	Normality of Coronary Vessel	This file stores the normality of the cardiac vessels for use by the CATHETERIZATION file.
696	Segment of Coronary Arteries	This file stores the coronary artery segments for use by the CATHETERIZATION file.
696.1	Percentage Lesion	This file stores the lesion percentage for various segments of the Cardiac Catheterization procedures.
696.2	Lesion Morphology	This file holds the various morphologies pointed to by the Morphology sub-fields of the Cardiac Catheterization file.
696.3	Morphology of Distal Vessel	This file stores the allowable morphologies for distal vessels. It is pointed to by the Cardiac Catheterization file.
696.4	Bypass Graft Segment	This file contains the various locations for the bypass graft segment. It is pointed to by the Cardiac Catheterization file.
696.5	Left Ventriculography	This file stores the left ventricular segments for use by the Cardiac Catheterization procedure.

696.7	Mitral Regurg on LV Gram	This file holds the types of mitral regurgitation used by the Cardiac Catheterization procedure.
696.9	Complication	This file holds the complications associated with medical procedures.
697	Anatomy	This file holds anatomical entries used in the Medicine package.
697.1	Referring Physician/Agency	This file holds the various referring physicians and agencies that have made referrals for cardiac catheterizations.
697.2	Procedure/Subspecialty	This file stores various File Manager and Screen Handler parameters associated with medical procedures, including global locations, names of File Manager full and brief input templates, and names of Screen Handler enter/edit screens.
697.3	Medicine Screen (User)	This file contains the screen characteristics of the medicine screen to be displayed.
697.5	Medical Diagnosis/ICD Codes	This file contains various Medical diagnoses with a screen to differentiate the area of Medicine associated with it. It also stores the various ICD codes associated with each diagnosis.
698	Generator Implant	This file is used to hold the Generator Implant/Explant data for the Pacemaker portion of the Medicine package.
698.1	V Lead Implant	This file holds the V Lead Implant/Explant information for Pacemaker.
698.2	A Lead Implant	This file holds the A Lead Implant/Explant information for Pacemaker.
698.3	Pacemaker Surveillance	This file holds the telephone/clinic follow-up data for Pacemaker.

698.4	Pacemaker Equipment	This file holds the various Generators, Leads, PSA Analyzers and telephone transmitters used in the Pacemaker module.
698.6	Pacemaker Manufacturer	This file holds the manufacturer's name for the various equipment (Generators, A Leads, V Leads, PSAs, and telephone transmitters) used by Pacemaker.
698.9	Non-Magnet ECG Rhythm	This file holds the rhythms for use by the Basic Rhythm field of the Pacemaker Surveillance file.
699	Endoscopy/Consult	This file holds all Endoscopic procedures as well as GI Non-endoscopic procedures.
699.48	Instrument	This file holds the various instruments used in medical procedures with a screen to differentiate the area of medicine.
699.5	Generalized Procedure/Consult	This file stores basic information on procedures in subspecialties for which separate files do not currently exist in the Medicine package.
699.55	Gross	This file holds grosses used for Endoscopic procedures with a screen to differentiate the type of sub-procedure(s) the gross is related to.
699.57	Modifier	This file holds modifiers used for Endoscopic Procedures with a screen to differentiate the type of sub-procedure(s) the modifier is related to.
699.6	Diag/Therap Intervent	This file stores the techniques used in medical procedures with a screen to differentiate the type of sub-procedure(s) the technique is related to.
699.7	Endoscopic Device	This file holds the various stents, sphincterotomes, tubes, etc. used in Endoscopic procedures.

699.81	Results	This file holds results for Endoscopic procedures.
699.82	Consultation Type	This file holds the consultation types for use in the Consult enter/edits.
699.83	Location of Pain/Pneumonias	This file stores the location of pain for GI Endoscopies and location of pneumonia for Pulmonary Endoscopy with a screen to differentiate them.
699.84	Disease Evaluation	This file holds disease evaluations for use with GI/Pulmonary.
699.85	Followup Device/Therapy	This file holds the various types of follow-up devices and therapies for use with GI/Pulmonary modules.
699.86	Surveillance	This file stores the type of surveillance for use by GI/Pulmonary modules.
699.88	Non-Endoscopic Procedure	This file stores the types of Non-endoscopic procedures for use with GI module.
700	Pulmonary Function Tests	This file stores the data on Pulmonary Function Tests performed on the patient.
700.1	PFT Predicted Values	This file holds the set of Predicted Value and Correction formulas for use by the PFT report. The formulas are selected from the PFT Formula file (700.2). There are 2 sets present (Male and Female). The Male and Female sets can be changed through the Pulmonary Managers' menu.
700.2	PFT Formula	This file contains the master list of predicted value and correction formulas for use in Pulmonary Function Tests.
700.5	Medicine Auto Instrument Interface Summary	This file contains one entry for each record transmitted from an auto instrument to DHCP. This file is used to print the Auto-Instrument Summary report.

701	Rheumatology	This file stores data on Rheumatology visits.

Exported Options

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Menu Option: Medicine Menu   [MCMEDICINE SITE MGR MENU]

Cardiology Menu   [MCARUSER]
|   Cath Lab Menu   [MCARCATH]
|   |   Enter/Edit Cath (Screen)   [MCFSCATH]
|   |   Cath Test Results   [MCFPCATH]
|   |   Line Entry/Edit of Cath Record   [MCFLCATH]
|   |   Image Capture   [MCARCATHIMAGE]
|   |   Brief Line Entry/Edit of Cath Record   [MCBLCATH]
|   |   Brief Enter/Edit Cath (Screen)   [MCBSCATH]
|   |   Brief Cath Report   [MCBPCATH]
|   |   Release Control Options (CATH)   [MCARCATHMANAGER]
|   |   |   Turn On Release Control/Elec. Signature   [MCESTONCATH]
|   |   |   Convert Old Records to Released Not Verified   [MCARCATHCONV]
|   |   |   Allow Printing of Superseded Reports   [MCESSUPONCATH]
|   |   |   Print Superseded Reports   [MCESSUPCATH]
|   |   |   Print Reports that are Marked for Deletion   [MCARCATHMFD]
|   |   |   Status Report   [MCESSTATUSCATH]
|   ECG Menu   [MCARECG]
|   |   Enter/Edit ECG (Screen)   [MCFSECG]
|   |   ECG Test Results   [MCFPECG]
|   |   Line ECG Entry/Edit   [MCFLECG]
|   |   Summary of Automated Records Transferred   [MCARECGAUTOSUM]
|   |   Brief Line ECG Entry/Edit   [MCBLECG]
|   |   Brief Enter/Edit ECG (Screen)   [MCBSECG]
|   |   Brief ECG Report   [MCBPECG]
|   |   Release Control Options (ECG)   [MCARECGMANGER]
|   |   |   Turn On Release Control/Elec. Signature   [MCESTONECG]
|   |   |   Convert Old Records to Released Not Verified   [MCARECGCONV]
|   |   |   Allow Printing of Superseded Reports   [MCESSUPONECG]
|   |   |   Print Superseded Reports   [MCESSUPECG]
|   |   |   Print Reports that are Marked for Deletion   [MCARECGMFD]
|   |   |   Status Report   [MCESSTATUSECG]
|   Echo Lab Menu   [MCARECHO]
|   |   Enter/Edit Echo (Screen)   [MCFSECHO]
|   |   Echo Test Results   [MCFPECHO]
|   |   Line Entry/Edit of ECHO test   [MCFLECHO]
|   |   Image Capture   [MCARECHOIMAGE]
|   |   Brief Line Echo Entry/Edit   [MCBLECHO]
|   |   Brief Enter/Edit Echo (Screen)   [MCBSECHO]
|   |   Brief Echo Report   [MCBPECHO]
|   |   Release Control Options (ECHO)   [MCARECHOMANAGER]
|   |   |   Turn On Release Control/Elec. Signature   [MCESTONECHO]
|   |   |   Convert Old Records to Released Not Verified   [MCARECHOCONV]
|   |   |   Print Superseded Reports   [MCESSUPECHO]
|   |   |   Allow Printing of Superseded Reports   [MCESSUPONECHO]
|   |   |   Print Reports that are Marked for Deletion   [MCARECHOMFD]
|   |   |   Status Report   [MCESSTATUSECHO]
|   EP Lab Menu   [MCAREP]
|   |   Enter/Edit Ep (Screen)   [MCFSEP]
|   |   Results of EP Tests   [MCFPEP]
|   |   EP Line Entry/Edit   [MCFLEP]
|   |   Brief EP Line Entry/Edit   [MCBLEP]
|   |   Brief Enter/Edit EP (Screen)   [MCBSEP]
|   |   Brief EP Report   [MCBPEP]
|   |   Release Control Options (EP)   [MCAREPMANAGER]
|   |   |   Turn On Release Control/Elec. Signature   [MCESTONEP]
|   |   |   Convert Old Records to Released Not Verified   [MCAREPCONV]
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|    |    |   Allow Printing of Superseded Reports   [MCESSUPONEP]
|    |    |   Print Superseded Reports   [MCESSUPEP]
|    |    |   Print Reports that are Marked for Deletion   [MCAREPMFD]
|    |    |   Status Report   [MCESSTATUSEP]
|    Holter Lab Menu   [MCARHOLTER]
|    |    Enter/Edit Holter (Screen)   [MCFSHOLTER]
|    |    Holter Test Results   [MCFPHOLTER]
|    |    Line Entry/Edit of Holter   [MCFLHOLTER]
|    |    Summary of Automated Records Transferred   [MCARHOLTAUTOSUM]
|    |    Brief Line Entry/Edit of Holter   [MCBLHOLTER]
|    |    Brief Enter/Edit Holter (Screen)   [MCBSHOLTER]
|    |    Brief Holter Report   [MCBPHOLTER]
|    |    Release Control Options (Holter)   [MCARHOLTERMANAGER]
|    |    |   Turn On Release Control/Elec. Signature   [MCESTONHOLTER]
|    |    |   Convert Old Records to Released Not Verified   [MCARHOLTERCONV]
|    |    |   Allow Printing of Superseded Reports   [MCESSUPONHOLTER]
|    |    |   Print Superseded Reports   [MCESSUPHOLTER]
|    |    |   Print Reports that are Marked for Deletion   [MCARHOLTERMFD]
|    |    |   Status Report   [MCESSTATUSHOLTER]
|    Exercise Tolerance Test (ETT) Menu   [MCARETT]
|    |    Enter/Edit ETT (Screen)   [MCFSETT]
|    |    ETT Results   [MCFPETT]
|    |    Line Entry/Edit of ETT Test   [MCFLETT]
|    |    Brief Line Entry/Edit of ETT   [MCBLETT]
|    |    Brief Enter/Edit ETT (Screen)   [MCBSETT]
|    |    Brief ETT Report   [MCBPETT]
|    |    Release Control Options (ETT)   [MCARETTMANAGER]
|    |    |   Turn On Release Control/Elec. Signature   [MCESTONETT]
|    |    |   Convert Old Records to Released Not Verified   [MCARETTCONV]
|    |    |   Allow Printing of Superseded Reports   [MCESSUPONETT]
|    |    |   Print Superseded Reports   [MCESSUPETT]
|    |    |   Print Reports that are Marked for Deletion   [MCARETTMFD]
|    |    |   Status Report   [MCESSTATUSETT]
|    Surgical Risk Analysis Menu   [MCARSURISKMENU]
|    |    Pre-Surgery Risk Analysis Enter/Edit   [MCARCATHSRAPRE]
|    |    Post-Surgery Risk Analysis Enter/Edit   [MCARCATHSRAPOST]
|    |    Pre-Surgery Risk Analysis Enter/Edit(Screen)   [MCARSRAPRE]
|    |    Post-Surgery Risk Analysis Enter/Edit(Screen)   [MCARSRAPOST]
|    |    Surgical Risk Analysis Report   [MCARCATHSRAPRINT]
|    Summary of Patient Procedures   [MCARSUMMARY]
|    Problem Oriented Consult Menu   [MCCONSULT MENU]
|    |    Problem Oriented Consult Enter/Edit   [MCARGICONSULTEDIT]
|    |    Problem Oriented Consult Enter/Edit (Screen)   [MCCONSULTSCREEN]
|    |    Problem Oriented Consult Report   [MCARGICONSULTPRINT]
|    |    Brief Enter/Edit of a Problem Oriented Consult   [MCARGICONSULTBRIEF]
|    |    Brief Consult Enter/Edit (Screen)   [MCCONSULTBRSCR]
|    |    Brief Consult Report   [MCCONSULTBRREPORT]
|    Cardiology Management Menu   [MCARMGR]
|    |    Cardiology Medication File Update   [MCARMED]
|    |    EP Intervention File Update   [MCARINTUPDATE]
GI Menu   [MCARGIUSER]
|    Endoscopic Procedure Menu   [MCGIENDOSCOPIC MENU]
|    |    Enter/Edit GI Procedure (Line)   [MCFLGI]
|    |    Procedure Enter/Edit (Screen)   [MCFSGI]
|    |    Endoscopic Report   [MCFPGI]
|    |         [MCDUMMY]
|    |    Diagnosis Review/Revision   [MCARGIDIAG]
|    |    Recall List   [MCARGIRECALLIST]
|    |    Image Capture   [MCARGIMAGE]
|    |         [MCDUMMY]
|    |    Brief Enter/Edit GI Procedure   [MCBLGI]
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|    |   Brief Procedure Enter/Edit (Screen)   [MCBSGI]
|    |   Brief Endoscopic Report   [MCBPGI]
|    Non-Endoscopic Procedures   [MCGINONENDOSOPIC MENU]
|    |   Enter/Edit Non-Endoscopic Exams (Line)   [MCFLNONENDO]
|    |   Enter/Edit Non-Endoscopic Exams (Screen)   [MCFSNONENDO]
|    |   Non-Endoscopic Report   [MCFPNONENDO]
|    |         [MCDUMMY]
|    |   Brief Enter/Edit of Non-Endo GI Procedure   [MCBLNONENDO]
|    |   Brief Non-Endo Enter/Edit (Screen)   [MCBSNONENDO]
|    |   Brief Non-Endoscopic Report   [MCBPNONENDO]
|    Summary of Patient Procedures   [MCARSUMMARY]
|    Problem Oriented Consult Menu   [MCCONSULT MENU]
|    |   Problem Oriented Consult Enter/Edit   [MCARGICONSULTEDIT]
|    |   Problem Oriented Consult Enter/Edit (Screen)   [MCCONSULTSCREEN]
|    |   Problem Oriented Consult Report   [MCARGICONSULTPRINT]
|    |   Brief Enter/Edit of a Problem Oriented Consult   [MCARGICONSULTBRIEF]
|    |   Brief Consult Enter/Edit (Screen)   [MCCONSULTBRSCR]
|    |   Brief Consult Report   [MCCONSULTBRREPORT]
|    GI Management Menu   [MCARGIMGR]
|    |   GI Medication Update   [MCARMEDGI]
|    |   Endoscopic Instrument Enter/Edit   [MCARGINSTR]
|    |   Sphincterotome Enter/Edit   [MCARGISPHINC]
|    |   Stent Enter/Edit   [MCARGISTENT]
|    |   Gastrostomy Tube Enter/Edit   [MCARGIGASTROTUBE]
|    |   Jejunostomy Tube Enter/Edit   [MCARGIJEJUNOTUBE]
|    |   Release Control Options (GI)   [MCESRELGI]
|    |   |   Turn On Release Control/Elec. Signature   [MCESTONGIENDO]
|    |   |   Convert Old Records to Released Not Verified   [MCARGICONV]
|    |   |   Allow Printing of Superseded Reports   [MCESSUPONGI]
|    |   |   Print Superseded Reports   [MCESSUPGI]
|    |   |   Print Reports that are Marked for Deletion   [MCARGIMFD]
|    |   |   |   Endoscopic Marked for Deletion Report   [MCARGIMFDED]
|    |   |   |   Non-Endoscopic Marked for Deletion Report   [MCARGIMFDNON]
|    |   |   Status Report   [MCESSTATUSGI]
Pulmonary Menu   [MCARPULMUSER]
|    Endoscopy Menu   [MCPULMENDOMENU]
|    |   Endoscopy Enter/Edit   [MCFLPULM]
|    |   Endoscopy Enter/Edit (Screen)   [MCFSPULM]
|    |   Endoscopic Report   [MCFPPULM]
|    |   Diagnosis Review/Revision   [MCARPULMDIAG]
|    |   Recall List   [MCARPULMRECALLIST]
|    |   Image Capture   [MCARPULMIMAGE]
|    |   Brief Endoscopy Enter/Edit   [MCBLPULM]
|    |   Brief Endoscopy Enter/Edit (Screen)   [MCBSPULM]
|    |   Brief Endoscopy Report   [MCBPPULM]
|    |   Release Control Options (Pulmonary)   [MCARPULMENDMANG]
|    |   |   Turn On Release Control/Elec. Signature   [MCESTONPULM]
|    |   |   Allow Printing of Superseded Reports   [MCESSUPONPULM]
|    |   |   Print Superseded Reports   [MCESSUPPULM]
|    |   |   Print Reports that are Marked for Deletion   [MCARPULMENDOMFD]
|    |   |   Status Report   [MCESSTATUSPULM]
|    Pulmonary Function Test Menu   [MCARPULMPFT]
|    |   Enter/Edit PFT   [MCFLPFT]
|    |   Interpretation Enter/Edit   [MCFLPFTI]
|    |   PFT Report   [MCFPPFT]
|    |   Enter/Edit PFT (Screen)   [MCFSPFT]
|    |   Brief PFT Enter/Edit   [MCBLPFT]
|    |   Brief PFT Enter/Edit (Screen)   [MCBSPFT]
|    |   Brief PFT Report   [MCBPPFT]
|    |   Release Control Options (PFT)   [MCPFTMANAGER]
|    |   |   Turn On Release Control/Elec. Signature   [MCESTONPFT]
```

```
|    |    |   Convert Old Records to Released Not Verified   [MCARPFTCONV]
|    |    |   Allow Printing of Superseded Reports   [MCESSUPONPFT]
|    |    |   Print Superseded Reports   [MCESSUPPFT]
|    |    |   Print Reports that are Marked for Deletion   [MCARPFTMFD]
|    |    |   Status Report   [MCESSTATUSPFT]
|    Summary of Patient Procedures   [MCARSUMMARY]
|    Problem Oriented Consult Menu   [MCCONSULT MENU]
|    |   Problem Oriented Consult Enter/Edit   [MCARGICONSULTEDIT]
|    |   Problem Oriented Consult Enter/Edit (Screen)   [MCCONSULTSCREEN]
|    |   Problem Oriented Consult Report   [MCARGICONSULTPRINT]
|    |   Brief Enter/Edit of a Problem Oriented Consult   [MCARGICONSULTBRIEF]
|    |   Brief Consult Enter/Edit (Screen)   [MCCONSULTBRSCR]
|    |   Brief Consult Report   [MCCONSULTBRREPORT]
|    Pulmonary Management Menu   [MCARPULMGR]
|    |   Pulmonary Medication Update   [MCARMEDPULM]
|    |   Pulmonary Instrument Enter/Edit   [MCARPULMINST]
|    |   PFT Predicted Values Formulas   [MCPFTPREDVALUES]
|    |   |   Edit Predicted Value Formulas   [MCPFTPVFEDT]
|    |   |   Associate Predicted Value Formulas   [MCPFTPVFASS]
Hematology Menu   [MCARHEMUSER]
|    Enter/Edit Hematology Procedures   [MCFLHEM]
|    Enter/Edit Hematology Procedures (Screen)   [MCFSHEM]
|    Hematology Report   [MCFPHEM]
|    Summary of Patient Procedures   [MCARSUMMARY]
|    Problem Oriented Consult Menu   [MCCONSULT MENU]
|    |   Problem Oriented Consult Enter/Edit   [MCARGICONSULTEDIT]
|    |   Problem Oriented Consult Enter/Edit (Screen)   [MCCONSULTSCREEN]
|    |   Problem Oriented Consult Report   [MCARGICONSULTPRINT]
|    |   Brief Enter/Edit of a Problem Oriented Consult   [MCARGICONSULTBRIEF]
|    |   Brief Consult Enter/Edit (Screen)   [MCCONSULTBRSCR]
|    |   Brief Consult Report   [MCCONSULTBRREPORT]
|    Image Capture   [MCARHEMIMAGE]
|    Brief Enter/Edit of Hematology Procedures   [MCBLHEM]
|    Brief Hematology Enter/Edit (Screen)   [MCBSHEM]
|    Brief Hematology Report   [MCBPHEM]
|    Release Control Options (Hematology)   [MCARHEMGR]
|    |   Turn On Release Control/Elec. Signature   [MCESTONHEM]
|    |   Convert Old Records to Released Not Verified   [MCARHEMCONV]
|    |   Allow Printing of Superseded Reports   [MCESSUPONHEM]
|    |   Print Superseded Reports   [MCESSUPHEM]
|    |   Print Reports that are Marked for Deletion   [MCARHEMMFD]
|    |   Status Report   [MCESSTATUSHEM]
Pacemaker Menu   [MCARPACEUSER]
|    Enter/Edit Menu (Line Entry)   [MCARPACEDITLINE]
|    |   Combined Implant/Leads Enter/Edit   [MCARPACEMULTEDIT]
|    |   Generator Implant/Explant Enter/Edit   [MCARPACEGENIMP]
|    |   A-Lead Implant/Explant Enter/Edit   [MCFLALEAD]
|    |   V-Lead Implant/Explant Enter/Edit   [MCFLVLEAD]
|    |   Surveillance Enter/Edit   [MCFLSURV]
|    |   Demographic Data Enter/Edit   [MCARPACEDIT]
|    |   Brief Generator Implant/Explant Enter/Edit   [MCBLGENE]
|    |   Brief A-Lead Implant/Explant Entry/Edit   [MCBLALEAD]
|    |   Brief V-Lead Implant/Explant Enter/Edit   [MCBLVLEAD]
|    |   Brief Surveillance Enter/Edit   [MCBLSURV]
|    Enter/Edit Menu (Screen Entry)   [MCARPACESCREENMENU]
|    |   Combined Implant/Leads Enter/Edit   [MCFSMULTI]
|    |   Generator Implant/Explant Enter/Edit   [MCFSGEN.IMPL.]
|    |   A-Lead Implant/Explant Enter/Edit   [MCFSALEAD]
|    |   V-Lead Implant/Explant Enter/Edit   [MCFSVLEAD]
|    |   Surveillance Enter/Edit   [MCARPACESCREENSURV]
|    |   Demographic Data Enter/Edit   [MCARPACESCREENDEMO]
```

```
|    |   Brief Generator Enter/Edit (Screen)   [MCBSGENI]
|    |   Brief A-Lead Imp/Exp Enter/Edit (Screen)   [MCBSALEAD]
|    |   Brief V-Lead Imp/Exp Enter/Edit (Screen)   [MCBSVLEAD]
|    |   Brief Surveillance Enter/Edit (Screen)   [MCPACSURVBRSCR]
|    Summary of Patient Procedures   [MCARSUMMARY]
|    Report Menu   [MCARPACEPRINT]
|    |   Generator Report   [MCARPACEGENPRINT]
|    |   A-Lead Report   [MCFPALEAD]
|    |   V-Lead Report   [MCFPVLEAD]
|    |   Surveillance Report   [MCARPACESURVPRINT]
|    |   Active Patient Report   [MCARPACEPATIENT]
|    |   Automated Transfer of Report to National Center   [MCARPACETRANS]
|    |   Brief Generator Report   [MCBPGEN.IMPLANT]
|    |   Brief A-Lead Report   [MCBPALEAD]
|    |   Brief V-Lead Report   [MCBPVLEAD]
|    |   Brief Surveillance Report   [MCPACSURVBRREPORT]
|    Pacemaker Management Menu   [MCARPACEMGR]
|    |   Equipment Update   [MCARPACEQUIP]
|    |   Manufacturer's List Update   [MCARPACEMANUF]
Rheumatology Menu   [MCRHUSER]
|    Diagnosis Edit   [MCRHDIAGF]
|    Add NEW visit/display Patient Background Info.   [MCRHBACKF]
|    History Narrative Edit   [MCRHNARRF]
|    Display Serial Laboratory Info.   [MCRHLABF]
|    Display/Print Drug Treatment Program   [MCRHTREAT]
|    Health Assessment (HAQ) Edit   [MCRHHAQF]
|    Health/Physical History Edit   [MCRHPATHISTF]
|    Physical Examination Edit   [MCRHPHYSF]
|    Death Admin Edit   [MCRHDEATHF]
|    Print Menu   [MCRHMENUPRT]
|    |   Diagnosis Print   [MCRHDIAGP]
|    |   Background Information Print   [MCRHBACKP]
|    |   History Narrative Print   [MCRHNARRP]
|    |   Serial Laboratory Info. Print   [MCRHLABP]
|    |   Health Assessment (HAQ) Print   [MCRHHAQP]
|    |   Health/Physical History Print   [MCRHPATHISTP]
|    |   Physical Examination Print   [MCRHPHYSP]
|    |   Death Admin Print    [MCRHDEATHP]
|    |   Print All Report   [MCRHALLP]
|    |   Brief Rheumatology Report   [MCBPRHEUM]
|    Line Enter/Edit Menu   [MCRHMENULIN]
|    |   Diagnosis Line Edit   [MCRHDIAGL]
|    |   History Narrative Line Edit   [MCRHNARRL]
|    |   Health Assessment (HAQ) Line Edit   [MCRHHAQL]
|    |   Health/Physical History Line Edit   [MCRHPATHISTL]
|    |   Physical Examination Line Edit   [MCRHPHYSL]
|    |   Death Admin Line Edit   [MCRHDEATHL]
|    |   Brief Diagnosis Line Edit   [MCRHBRIEF]
|    Problem Oriented Consult Menu   [MCCONSULT MENU]
|    |   Problem Oriented Consult Enter/Edit   [MCARGICONSULTEDIT]
|    |   Problem Oriented Consult Enter/Edit (Screen)   [MCCONSULTSCREEN]
|    |   Problem Oriented Consult Report   [MCARGICONSULTPRINT]
|    |   Brief Enter/Edit of a Problem Oriented Consult   [MCARGICONSULTBRIEF]
|    |   Brief Consult Enter/Edit (Screen)   [MCCONSULTBRSCR]
|    |   Brief Consult Report   [MCCONSULTBRREPORT]
|    Image Capture   [MCRHIMAGE]
|    Summary of Patient Procedures   [MCARSUMMARY]
|    Rheumatology Management Menu   [MCRHMENUMGR]
|    |   Rheumatology Medication File Update   [MCRHMED]
|    |   Delete Rheumatology Visit   [MCRHDELVISIT]
Generalized Procedure Menu   [MCGENERIC MEDICINE MENU]
```

```
|   Generalized Procedure Enter/Edit   [MCFLGEN]
|   Generalized Procedure Enter/Edit (Screen)   [MCFSGEN]
|   Generalized Procedure Report   [MCFPGEN]
|   Summary of Patient Procedures   [MCARSUMMARY]
|   Problem Oriented Consult Menu   [MCCONSULT MENU]
|   |   Problem Oriented Consult Enter/Edit   [MCARGICONSULTEDIT]
|   |   Problem Oriented Consult Enter/Edit (Screen)   [MCCONSULTSCREEN]
|   |   Problem Oriented Consult Report   [MCARGICONSULTPRINT]
|   |   Brief Enter/Edit of a Problem Oriented Consult   [MCARGICONSULTBRIEF]
|   |   Brief Consult Enter/Edit (Screen)   [MCCONSULTBRSCR]
|   |   Brief Consult Report   [MCCONSULTBRREPORT]
|   Image Capture   [MCGENERICIMAGE]
|   Brief Generalized Procedure Enter/Edit   [MCBLGEN]
|   Brief Generalized Procedure Enter/Edit (Screen)   [MCBSGEN]
|   Brief Generalized Procedure Report   [MCBPGEN]
|   Generalized Procedure Management   [MCGENERICMGR]
|   |   Procedures/Subspecialties Definition Enter/Edit   [MCGENERICPREDT]
Summary of Patient Procedures   [MCARSUMMARY]
Enable/Disable OE/RR   [MCORHOOK]
Workload Reporting Management   [MCWKLDM]
|   Workload Reporting ON/OFF Toggle   [MCWKLDT]
|   Workload Reporting Mailgroup Selection   [MCWKLDG]
|   Workload Reporting Device Selection   [MCWKLDD]
```

Archiving and Purging

At present, the only archiving or purging capability for the Medicine package is for Automated Instrument Interface.

The user can enter the Cardiology menu and then select Cardiology Management Menu.

#3 is ECG Transfer Record Delete.
#4 is Holter Transfer Record Delete.

Upon choosing one of the above options, the user will be asked for the number of days of reports they wish to retain. There is a 30-day minimum, which means one must keep at least the last 30-days worth of records.

Callable Routines

The MCORMNO routine is called from the Order/Entry Health Summary package and is a black box. It checks that the variables GMRCSR and GMRCPRUM are defined. If these variables are not defined, the routine asks for the print template or record number using VA FileMan routines.

External Relations

This package was created using Kernel V. 8.0 and VA FileMan V. 21.0 and requires the following external files:

File #	Package Name	Minimum Required Version
2	PIMS	5.3
50	OUTPATIENT PHARMACY	2.2
55	OUTPATIENT PHARMACY	2.2
61	LAB SERVICE	5.1
61.1	LAB SERVICE	5.1
61.3	LAB SERVICE	5.1
61.5	LAB SERVICE	5.1
80	DRG GROUPER	5.3
100	OE/RR	2.5
101	OE/RR	2.5
120.8	ADVERSE REACTION TRACKING	2.2
123	CONSULT/REQUEST TRACKING	2.5

Health Summary V. 2.7 AND HL7 V. 1.5 need not be installed for Medicine to run, however any components that use Health Summary will not be available. Therefore, it is suggested that both Health Summary and HL7 be installed.

Installation of Imaging is optional at this time.

SACC Exemptions

1 STANDARD SECTION: 2D2 * & # READs
DATE GRANTED: FEB 13,1990
The Medicine package may use #-read in the screen-handler routines.

DBI Agreements by Subscriber

```
1568     NAME: Set File Security for Medicine Files
  CUSTODIAL PACKAGE: VA FILEMAN                    San Francisco
SUBSCRIBING PACKAGE: MEDICINE                      Chicago
              USAGE: Private            APPROVED: Approved
             STATUS: Active                EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 1                      ROOT: DIC(
        DESCRIPTION:                        TYPE: File
   The Medicine package uses the KIDS utility to export the package software.
   Medicine exports file level security codes for its data dictionaries.
   Currently, KIDS will not change the file level security codes on the
   target system if they already exist.  This DBIA allows Medicine to check
   the file level security nodes on the package's data dictionaries and
   change the target system's file level security to match the ones being
   exported.

    The nodes changed are:

    ^DIC(File,0,"DD")="@"  and  ^DIC(File,0,"AUDIT")="@"

    Where 'File' has the following values:

    690     690.1   690.2   690.5   690.97
    690.99  691     691.1   691.5   691.6
    691.7   691.8   691.9   692     693
    693.2   693.3   693.5   693.6   694
    694.1   694.5   694.8   695     695.1
    695.3   695.4   695.5   695.6   695.8
    695.9   696     696.1   696.2   696.3
    696.4   696.5   696.7   696.9   697
    697.1   697.2   697.3   697.5   698
    698.1   698.2   698.3   698.4   698.6
    698.9   699     699.48  699.5   699.55
    699.57  699.6   699.7   699.81  699.82
    699.83  699.84  699.85  699.86  699.88
    700     700.1   700.2   700.5   701

                            ***************************

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      1090     NAME: DBIA1090
  CUSTODIAL PACKAGE: CONSULT/REQUEST TR            Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                      Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Other
   The Medicine developers and the Consult/Request Tracking developers have
   agreed to remove the GMRCACT NEW PATIENT protocol (child) as an item from
   the GMRCACTM MEDICINE PKG MENU protocol (parent) in the Consult/
   Request Tracking package.  The functionality provided in the GMRCACT NEW
   PATIENT protocol as an item in the GMRCACTM MED PKG MENU is not
   appropriate within the defined context of the Medicine package and removing this
   item will ensure that users are not prompted twice for selecting a patient.

   The routine MCFIXOEP, has been developed and will be included in the
   pre-installation process for Medicine V2.2 which will remove the protocol
   item.  The Consult/Request Tracking developers will remove the GMRCACT NEW
```

```
   PATIENT protocol item from future versions of Consults.

     ROUTINE:

                              ********************

       190     NAME: DBIA190-A
  CUSTODIAL PACKAGE: GEN. MED. REC. - A           Chicago
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     The Medicine package has the permission of the Allergy Tracking System
     developers to use the following items from ATS V2.2.

      EN2^GMRAPEM0:  This entry point is to be used by the Medicine package
      to enter data into the Allergy Tracking System.  The input variable
      is DFN (pointer to file 2).

     ROUTINE: GMRAPEM0
   COMPONENT:  EN2
   VARIABLES:

                              ********************

       672     NAME: DBIA190-B
  CUSTODIAL PACKAGE: GEN. MED. REC. - A           Chicago
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 120.8                  ROOT: GMR(120.8,
        DESCRIPTION:                        TYPE: File
      The Medicine package also needs to reference the following data
      elements:
         Patient Allergies (120.8) file:
           REACTION:REACTION (10,.01) and REACTION:OTHER REACTION (10,1)

           which is located in $P(^GMR(120.8,D0,10,D1,0),U,1,2).
             -D0 would be obtained from a call to ^GMRADPT, and D1 would be
              obtained by looping through the multiple.

     ROUTINE:

                              ********************

       673     NAME: DBIA190-C
  CUSTODIAL PACKAGE: GEN. MED. REC. - A           Chicago
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 120.83                 ROOT: GMRD(120.83,
        DESCRIPTION:                        TYPE: File

     The Medicine package has the permission of the Allergy Tracking System
   developers to use the following items from ATS V2.2.
         GMR Reactions (120.83) file:
           NAME (.01) which is located in $P(^GMRD(120.83,D0,0),U).
              -D0 is obtained as the first piece from the first piece of
               ^GMR(120.8,D0,10,D1,0) as described above.
           "B" xref on NAME (.01) field which is located in ^GMRD(120.83,"B")
              -This is used to determine if an entry in the REACTIONS
               multiple, described above, points to the entry "OTHER
```

```
   REACTION".



     ROUTINE:

                              ********************

       466     NAME: DBIA466
  CUSTODIAL PACKAGE: IMAGING                      Washington
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   The Medicine package has been given permission by the Imaging package to
   do the following:

   Make calls to the ^MAGMIM routine through the ^MCMAG routine.

     ROUTINE: MAGMIM

   COMPONENT:  MAGMIM
   VARIABLES:  MCFILE      Input
                                  This is the file number of the procedure.
                  ^MAGMIM routine allows the set-up of the variables
                  necessary for image capture.  The routine is used during
                  the Image Capture option of the various Medicine modules.
                  This option allows the imaging package to associate images
                  with the various Medicine procedures.
   COMPONENT:  EN1
   VARIABLES:  MCFILE      Input
                                  This is the file number for the current
                                  procedure.
                  EN1^MAGMIM entry-point is the same as MAGMIM with the
                  expectation that it happens after the editing of a Medicine
                  procedure.

                              ********************

       467     NAME: DBIA467
  CUSTODIAL PACKAGE: IMAGING                      Washington
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
   The Medicine package has been given permission by the Imaging package to
   do the following:

   Make calls to the ^MAGDISP routine through the ^MCMAG routine.

     ROUTINE: MAGDISP
   COMPONENT:  MAGDISP
   VARIABLES:  MCFILE      Input
                                  This is the file number for the current
                                  procedure.
                  ^MAGDISP routine allows the display of images with a
                  Medicine procedure during the printing of that procedure.

                              ********************

       468     NAME: DBIA468
  CUSTODIAL PACKAGE: IMAGING                      Washington
```

```
SUBSCRIBING PACKAGE: MEDICINE                      Washington
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine

   The Medicine package has been given permission by the Imaging package to
   the following:

     Make calls to the ^MAGSUM routine through the ^MCMAG routine.

     ROUTINE: MAGSUM
   COMPONENT:  MAGSUM
   VARIABLES:  MCFILE      Input
                                  This is the file number for the current
                                  procedure.
               ^MAGSUM routine displays a series of patient images.  This
               routine is used during the Summary of Patient Procedures
               options.

                          ********************

       469     NAME: DBIA469
  CUSTODIAL PACKAGE: IMAGING                       Washington
SUBSCRIBING PACKAGE: MEDICINE                      Washington
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Other
   The Medicine package has permission by the Imaging package to Kill the
   ^TMP("MAG",$J,"COL") and ^TMP("MAG",$J,"ROW") globals within the
    Medicine package upon exiting the Summary of Patient Procedures options.

     ROUTINE:

                          ********************

       470     NAME: DBIA470
  CUSTODIAL PACKAGE: IMAGING                       Washington
SUBSCRIBING PACKAGE: MEDICINE                      Washington
             USAGE: Private            APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 2005                   ROOT: MAG(2005
       DESCRIPTION:                        TYPE: File
   The Medicine package has been given permission by the Imaging package to
   do the following:

   Point to the Imaging File (#2005) to reference each Medicine Procedure
   that has images.
     ^MAG(2005,
        The Medicine package is pointing to File 2005 to reference each
        Medicine Procedure that has images.


     ROUTINE:

                          ********************

       895     NAME: PSGIU
  CUSTODIAL PACKAGE: INPATIENT MEDICATI            Birmingham
SUBSCRIBING PACKAGE: MEDICINE                      Washington
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
```

```
            FILE:                          ROOT:
     DESCRIPTION:                          TYPE: Routine
Gives the ability to mark entries in the Drug file (50) for use with
various packages.

  ROUTINE: PSGIU
COMPONENT:  EN
VARIABLES:  PSIUDA      Input
                                Internal entry number of the drug in the
                                Drug file (50). The variable is not
                                killed by this entry point.
            PSIUX       Input
                                Package information => package
                                code^package name where:

                                Package code. The code used to mark the
                                entry. This code is provided by the
                                Birmingham ISC.

                                Package name. The name of the package for
                                which the item will be used.

                                The variable is not killed by this entry
                                point.
               Prompts users to mark or unmark drug entries for use by
               their package.
COMPONENT:  ENS
VARIABLES:  PSIUDA      Input
                                Internal entry number of the drug in the
                                Drug file (50). The variable is not
                                killed by this entry point.
            PSIUX       Input
                                Package information => package
                                code^package name where:

                                Package code. The code used to mark the
                                entry. This code is provided by the
                                Birmingham ISC.


                                Package name. The name of the package for
                                which the item will be used.

                                The variable is not killed by this entry
                                point.
               Automatically marks drug entry for use with the package
               without any user interaction.
COMPONENT:  END
VARIABLES:  PSIUDA      Input
                                Internal entry number of the drug in the
                                Drug file (50). The variable is not
                                killed by this entry point.
            PSIUX       Input
                                Package information => package
                                code^package name where:

                                Package code. The code used to mark the
                                entry. This code is provided by the
                                Birmingham ISC.

                                Package name. The name of the package for
                                which the item will be used. The package
                                name is not required for the END entry
                                point.

                                This variable is not killed by this entry
                                point.
```

```
                Automatically unmarks drug entry for use with package with
                no user interaction.

                          ********************

        38     NAME: DBIA38
  CUSTODIAL PACKAGE: LAB SERVICE                  Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Other
   Cardiology package exports Lab Codes for Cardiology.

     ROUTINE:

                          ********************

       196     NAME: DBIA196-A
  CUSTODIAL PACKAGE: LAB SERVICE                  Dallas
SUBSCRIBING PACKAGE: MEDICINE                     Washington

              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 62.5                   ROOT: LAB(62.4,
        DESCRIPTION:                        TYPE: File
   The Medicine Package has permission from the Lab developers for read and
   write access to the ^LA node for the purpose of LSI autoinstrument
   interfacing.

   The Medicine Package has permission from the Lab developers for creating
   entries in the Autoinstrument file for the purpose of LSI autoinstrument
   interfacing.

     ROUTINE:

                          ********************

       680     NAME: DBIA196-B
  CUSTODIAL PACKAGE: LAB SERVICE                  Dallas
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 61.5                   ROOT: LAB(61.5,
        DESCRIPTION:                        TYPE: File
   The Medicine package has permission from the Lab developers to correct the
   double entry (CARDIOASSIST, AORTIC BALLOON PUMP) in the Lab SNOMED
   file.

   The Medicine package has permission from the Lab developers to create
   pointer values to the Lab SNOMED code file entries.

     ROUTINE:

                          ********************

       681     NAME: DBIA196-C
  CUSTODIAL PACKAGE: LAB SERVICE                  Dallas
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 63                     ROOT: LR(
        DESCRIPTION:                        TYPE: File
```

```
   The Medicine package has permission from the Lab developers to use the
   following root for FileMan access to Lab chemistry values: ^LR(DFN,""CH"",
   (for display only) .

     ^LR(D0,'CH',

     ROUTINE:

                            ********************

       861     NAME: OR
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: OR
   COMPONENT:  EN
   VARIABLES:  X           Input
                                  Variable pointer of the protocol.
                  OE/RR Processor. This is the main entry point to run the
                  OE/RR program.  It is called with X set as a variable
                  pointer to the initial protocol.

                            ********************

       862     NAME: ORUHDR
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORUHDR
   COMPONENT:  EXT
   VARIABLES:  ORIFN       Both
                                  Internal number in file 100 of the order
                                  to display.
               ORAGE       Output
                                  Patient age.
               ORIO        Output
               ORANSI      Output
               ORDOB       Output
                                  Patient Date of Birth
               ORFT        Output
               ORHI        Output
               ORNP        Output
                                  Pointer to file 200 for Current
                                  Agent/Provider


               ORL         Output
                                  Variable pointer to the variable pointer.
               ORPD        Output
               ORPNM       Output
                                  Patient name
               ORPV        Output
                                  Pointer to Provider file for the person
                                  requesting the order.
               ORSEQ       Output
               ORSEX       Output
                                  Patient sex.
```

```
                ORSSN       Output
                                    Patient SSN
                ORTIT       Output
                                    Title
                ORTS        Output
                                    Pointer to Treating Specialty associated
                                    with the order.
                ORVP        Output
                                    Variable pointer toe object of an order.
                ORWARD      Output
                                    Inpatient Ward location
                   Displays a standard header for detailed order displays.  If
                   calling this from within OE/RR, it is not necessary to
                   kill the returned variables.  OE/RR will kill them.
   COMPONENT:   PGBRK
   VARIABLES:   DIROUT      Output
                                    User entered a '^^'
                OREND       Output
                                    User entered a '^'
                   Displays 'Press return to continue or "^" to escape' at
                   page breaks.

                              ********************

       863     NAME: ORUPREF2
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORUPREF2
   COMPONENT:   EN3
   VARIABLES:   ORPKG       Input
                                    Package pointer.
                ORDEF       Input

                                    Default protocol for setting up
                                    protocols.
                ORFL        Input
                                    File link - variable pointer for
                                    procedure file.
                ORDANM      Input
                                    Optional name of the protocol.
                ORDA        Input
                                    Internal number of an existing protocol
                                    to be updated.
                OREA        Input
                                    Action used in lieu of default defined in
                                    OROEF.
                ORTXT       Input
                                    Name of protocol; if not defined, the .01
                                    filed of the procedure referenced is
                                    used.
                   Utility for 'on-the-fly' protocol creation.  See OE/RR
                   Developers guide.

                              ********************

       864     NAME: ORUTL
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
```

```
              FILE:                          ROOT:
       DESCRIPTION:                          TYPE: Routine

     ROUTINE: ORUTL
   COMPONENT:  READ
   VARIABLES:

                              ********************

       865     NAME: ORVOM
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                         ROOT:
       DESCRIPTION:                         TYPE: Routine

     ROUTINE: ORVOM

                              ********************

       866     NAME: ORX
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                         ROOT:
       DESCRIPTION:                         TYPE: Routine

     ROUTINE: ORX
   COMPONENT:  FILE
   VARIABLES:  OREPDUZ     Input
                                  DUZ of the person entering the order.
               ORL         Input
                                  Variable pointer to the variable pointer.
               ORPCL       Input
                                  Variable pointer to the protocol that
                                  created the order.
               ORNP        Input
                                  Pointer to file 200 for Current
                                  Agent/Provider
               ORVP        Input
                                  Variable pointer to the object of an
                                  order.
               ORCOST      Input
                                  Cost of the order
               OREVENT     Input
                                  Two piece variable delimited by a
                                  semicolon.  The first piece is the time
                                  at which an event should occur.  The
                                  second piece is a character that has
                                  meaning to a package.
               ORIT        Input
                                  Variable pointer to the item ordered.
               ORLOG       Input
                                  Time the order is entered.
               ORPK        Input
                                  Package reference defined by the package
                                  when an order is created.
               ORPURG      Input
                                  Grace days before an order is purged.
               ORSTOP      Input
                                  Order Stop Date
               ORSTRT      Input
                                  Order start date
```

```
                ORSTS       Input
                                    Order status
                ORTO        Input


                                    Pointer to Display Group file. Identifies
                                    the service receiving the order.
                ORTS        Input
                                    Pointer to Treating Specialty associated
                                    with the order.
                ORTX(i)     Input
                                    Order Text.
                ORIFN       Output
                                    Internal entry number of order in file
                                    100
   COMPONENT:   RETURN
   VARIABLES:   ORIFN       Input
                                    Internal entry number of order.
                ORETURN(OR  Input
                                    Cost of the order.
                ORETURN(OR  Input
                                    Two piece variable delimited by a
                                    semicolon.  The first piece is the time
                                    at which an event should occur.  The
                                    second piece is a character that has
                                    meaning to a package.
                ORETURN(OR  Input
                                    Variable pointer to the item ordered.
                ORETURN(OR  Input
                                    Free text, package defined reference.
                ORETURN(OR  Input
                                    Grace period before purging order.
                ORETURN(OR  Input
                                    Pointer to file 200 for Current
                                    Agent/Provider
                ORETURN(OR  Input
                                    Stop Date
                ORETURN(OR  Input
                                    Start Date
                ORETURN(OR  Input
                                    Pointer to Order Status
                ORETURN(OR  Input
                                    Order Text
   COMPONENT:   ST
   VARIABLES:   ORIFN       Input
                                    Internal entry number of the order.
                ORSTS       Input
                                    Order Status

                              **********

       867     NAME: ORX2
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington

              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORX2
   COMPONENT:   LK
   VARIABLES:   X           Input
                                    Variable pointer of patient.
                Y           Output
                                    Y=1 if lock is successful, 0 if failed.
```

```
                Used when updating orders for a patient to check that
                someone else is not also updating orders at the same time
                for the same patient.  This will attempt to set a software
                lock on the patient.  Applications using this entry point
                must also call the entry point ULK^ORX2 to unlock the
                patient when the updating process is finished.
   COMPONENT:  ULK
   VARIABLES:  X           Input
                                Variable pointer to the patient.
                Used in conjunction with the entry point LK^ORX2 to unlock
                a patient during the process of adding orders.  Do not call
                this entry point unless you have already successfully
                locked the patient.

                           ********************

       868     NAME: ORX3
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORX3
   COMPONENT:  NOTE
   VARIABLES:  ORNOTE(i)   Input
                                i=internal # of the notification
               ORVP        Input
                                Variable pointer to the patient.
               ORIFN       Input
                                Order number that you want this
                                notification to linked to.
                This is an entry point that creates a notification for a
                package.

                           ********************

       869     NAME: ORX5
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine

     ROUTINE: ORX5
   COMPONENT:  DC
   VARIABLES:  ORIFN       Input
                                Pointer to the order.
                This entry is called when a package needs to create a DC
                order.
   COMPONENT:  HOLD
   VARIABLES:  ORIFN       Input
                                Pointer to the order.
                This entry is called when a package needs to place a HOLD
                on an ordered item.

                           ********************

       870     NAME: ORX7
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
```

```
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine

    ROUTINE: ORX7
  COMPONENT:  DC
  VARIABLES:  ORIFN       Input
                                Pointer to the order.
              ORNATR      Input
                                Identifies the Nature of Order.
                 This entry point is provided for orders that are
                 discontinued by the service.  This creates a DC order for
                 the order identified by ORIFN.

                            ********************

      871     NAME: ORX8
 CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                    Washington


             USAGE: Controlled Subscri APPROVED: APPROVED
            STATUS: Active              EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                        ROOT:
       DESCRIPTION:                        TYPE: Routine

    ROUTINE: ORX8
  COMPONENT:  EN(ORIFN)
  VARIABLES:  ORIFN       Input
                                Pointer to the order.
              ORUPCHUK('  Output
                                =WHO ENTERED^External Format
              ORUPCHUK('  Output
                                =PATIENT LOCATION
              ORUPCHUK('  Output
                                =CURRENT AGENT/PROVIDER^External format
              ORUPCHUK('  Output
                                =WHEN ENTERED
              ORUPCHUK('  Output
                                =PROTOCOL
              ORUPCHUK('  Output
                                =CURRENT AGENT/PROVIDER^External Format
              ORUPCHUK('  Output
                                =STOP DATE
              ORUPCHUK('  Output
                                =CURRENT START DATE
              ORUPCHUK('  Output
                                =STATUS^External format
              ORUPCHUK('  Output
                                =TO (display group)^External Format
              ORUPCHUK('  Output
                                =ORDER TEXT (Multiple)
              ORUPCHUK('  Output
                                =OBJECT OF ORDER
                 This entry point returns data from the Order file (100) for
                 a particular order.
  COMPONENT:  NOTIF(ORIFN,ORNOTE)
  VARIABLES:  ORIFN       Input
                                Pointer to the order
              ORNOTE      Input
                                Pointer to the notification

                            ********************

      872     NAME: File 101
 CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
```

```
SUBSCRIBING PACKAGE: MEDICINE                      Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:

           DURATION: Till Otherwise Agr  VERSION:
               FILE: 101                    ROOT: ORD(101,
        DESCRIPTION:                        TYPE: File
   This file may be referenced by packages to maintain protocols within their
   namespace.  This file may also be pointed to.

     ROUTINE:

                            ********************

       873     NAME: File 100.98
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 100.98                 ROOT: ORD(100.98,
        DESCRIPTION:                        TYPE: File
   This file may be referenced to determine an appropriate Display Group for
   an order in the manner:
      S ORTO=$O(^ORD(100.98,'B','OTHER HOSPITAL SERVICES',0))

     ROUTINE:

                            ********************

       874     NAME: File 100.99
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 100.99                 ROOT: ORD(100.99,
        DESCRIPTION:                        TYPE: File
   This file may be referenced by packages interfacing with OE/RR to see if
   OE/RR has been installed in the manner:
       I $D(^ORD(100.99)) ...

   Packages may also setup entries in the Package Parameters portion of this
   file.

     ROUTINE:

                            ********************

       875     NAME: File 100.01
  CUSTODIAL PACKAGE: ORDER ENTRY/RESULT           Salt Lake City
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Controlled Subscri APPROVED: APPROVED

             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 100.01                 ROOT: ORD(100.01,
        DESCRIPTION:                        TYPE: File
   This file may be pointed to.

     ROUTINE:

                            ********************

       674     NAME: DBIA191-B
  CUSTODIAL PACKAGE: PHARMACY                     Birmingham
SUBSCRIBING PACKAGE: MEDICINE                     Washington
```

```
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
        ^PSODEM:  This is Pharmacy's MAS patient demographic
        function which is used in conjunction with the Pharmacy
        Patient profile.  The input variable is DA and is the
        internal entry number of the VA Patient file and is
        equivalent to the DFN.

     ROUTINE: PSODEM

                              ********************

       675     NAME: DBIA191-C
  CUSTODIAL PACKAGE: PHARMACY                     Birmingham
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
        STAT^PSOFUNC:  This is the Pharmacy treatment status
        function and is used in the Pharmacy patient profile.
        The required variables are RX0, RX2, and J.

     ROUTINE: PSOFUNC
   COMPONENT:  STAT
   VARIABLES:

                              ********************

       676     NAME: DBIA191-D
  CUSTODIAL PACKAGE: PHARMACY                     Birmingham
SUBSCRIBING PACKAGE: MEDICINE                     Washington

              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: Routine
        DOIT^PSOP:  This is the Pharmacy queue report entry point.

     ROUTINE: PSOP
   COMPONENT:  DOIT
   VARIABLES:

                              ********************

       677     NAME: DBIA191-E
  CUSTODIAL PACKAGE: PHARMACY                     Birmingham
SUBSCRIBING PACKAGE: MEDICINE                     Washington
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 55                     ROOT: PS(55,
        DESCRIPTION:                        TYPE: File
        ^PS(55,DA,"P") and ^PS(55,DA,"ARC") in order to screen the
        file for relevant data.

     ROUTINE:

                              ********************

       678     NAME: DBIA191-F
  CUSTODIAL PACKAGE: PHARMACY                     Birmingham
```

```
SUBSCRIBING PACKAGE: MEDICINE                       Washington
             USAGE: Private             APPROVED: APPROVED
            STATUS: Active               EXPIRES:
          DURATION: Till Otherwise Agr   VERSION:
              FILE: 52                      ROOT: PSRX(
       DESCRIPTION:                         TYPE: File
       ^PSRX(DA, for prescription data.

     ROUTINE:

                            ********************

       679     NAME: DBIA191-G
  CUSTODIAL PACKAGE: PHARMACY                       Birmingham
SUBSCRIBING PACKAGE: MEDICINE                       Washington
             USAGE: Private             APPROVED: APPROVED
            STATUS: Active               EXPIRES:
          DURATION: Till Otherwise Agr   VERSION:
              FILE: 50                      ROOT: PSDRUG(

       DESCRIPTION:                         TYPE: File
       ^PSDRUG(DA, for drug data.


     ROUTINE:

                            ********************

       934     NAME: DBIA934
  CUSTODIAL PACKAGE: PHARMACY                       Birmingham
SUBSCRIBING PACKAGE: MEDICINE                       Washington
             USAGE: Private             APPROVED: APPROVED
            STATUS: Active               EXPIRES:
          DURATION: Till Otherwise Agr   VERSION:
              FILE:                         ROOT:
       DESCRIPTION:                         TYPE: Routine
   This is for Pharmacy 6.0 and greater.

     ROUTINE: PSOP
   COMPONENT:  PSOP
   VARIABLES:  PLS         Input
               DFN         Input
                                Internal Entry Number of the patient.
                  This entry point(and re-entry point) is the functional
                  Pharmacy Patient profile.  This tool is used for
                  acquisition of display only data for use in Rheumatology
                  reports.

                  This supersedes DBIA191-A #191.
```

Medicine Custodial DBI Agreements

```
              NAME: DBIA147-A             ENTRY: 147
  CUSTODIAL PACKAGE: MEDICINE                       Washington
SUBSCRIBING PACKAGE: CONSULT/REQUEST TR             Salt Lake City
             USAGE: Private             APPROVED: APPROVED
            STATUS: Active               EXPIRES:
          DURATION: Till Otherwise Agr   VERSION:
              FILE:                         ROOT:
       DESCRIPTION:                         TYPE: Other
   1.  The REQUEST/CONSULTATION file, 123, has a variable pointer field
   called "Results" which points to the following fields.
```

```
       691    Echo
       691.1  Cardiac Catheterization
       691.5  Electrocardiogram (EKG/ECG)
       691.6  Holter
       691.7  Exercise Tolerance Test
       691.8  Electrophysiology (EP)
       694    Hematology
       698    Generator Implant
       698V1  V Lead Implant
       698.2  A Lead Implant
       698.3  Pacemaker Surveillance
       699    Endoscopy/Consult
       700    Pulmonary Function Tests
       701    Rheumatology

     ROUTINE:

                              ********************

               NAME: DBIA147-B             ENTRY: 615
  CUSTODIAL PACKAGE: MEDICINE                     Washington
SUBSCRIBING PACKAGE: CONSULT/REQUEST TR           Salt Lake City
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                       ROOT:
        DESCRIPTION:                       TYPE: Routine
   2. This results pointer is updated via calls from the Medicine options
   which enter/edit results to EN^GMRCR and RESULT^GMRCR, which are
   documented in the Consult/Request Tracking package.
     Once the results variable pointer is defined, the Medicine Package has
   provided Consult/Request Tracking with an entry point PRINT^MCOR which
   extracts results information and stores them in an ^TMP array for display
   purposes in OE/RR and Consult/Request Tracking.
     In order to call PRINT^MCOR the Consult/Request Tracking package must
   define the following variables.
       ORACTION=8
       GMRCSR=variable pointer to results file
       GMRCPRNM=Name of procedure type, which should equal one of the
   Procedure Types in File 697.2, the eighth piece.

     ROUTINE: MCOR
   COMPONENT:  PRINT
   VARIABLES:

                              ********************

               NAME: DBIA147-C             ENTRY: 616
  CUSTODIAL PACKAGE: MEDICINE                     Washington
SUBSCRIBING PACKAGE: CONSULT/REQUEST TR           Salt Lake City
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 697.2                 ROOT: MCAR(697.2,
        DESCRIPTION:                       TYPE: File
   3.  In addition to the interface the Medicine Package has provided, an
   alternative method for the Medicine Package Users is provided in a stand
   alone option provided by the Consult/Request Tracking Package.  This
   option functions as follows:
        -  The user selects the Medicine Procedure Type from a Protocol Menu
        -  The service related to the Procedure Type defined in the FILE LINK
            field in Protocol File is determined
        -  The patient is selected.
        -  Consults/Request for the Service and Patient are displayed.
        -  At the Select Action: prompt, the user may select "AR" for
            associate results
        -  File 697.2 (new agreement) is used to determine the appropriate
```

```
           file of results to use, based on the Procedure Type.
        -  The user is allowed to select from the list of Results in this
           results file for the Patient. (Using Medicine "C" cross-ref.)
        -  Once a result entry is selected, it may be viewed using the
           PRINT^MCOR, to verify these are the correct results to associate with the
           request.
        -  The user is asked if the order status should be updated to
           'Completed' (default is yes, if no, ORSTS is incomplete)
        -  The user is asked to enter the name of the clinician responsible
           for the results.

     ROUTINE:

                              ********************

               NAME: DBIA80-A              ENTRY: 80
  CUSTODIAL PACKAGE: MEDICINE                     Washington
SUBSCRIBING PACKAGE: HEALTH SUMMARY               Salt Lake City
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 690                    ROOT: MCAR(690,
        DESCRIPTION:                        TYPE: File
   The Health Summary exports and calls the routine GMTSMCPS, which generates
   the output for the Health Summary Medicine component.  The following
   fields and cross references are being referenced:

     ^MCAR(690,     Medical Patient File
                    Uses "AC" cross reference

     ROUTINE:

                              ********************

               NAME: DBIA80-B              ENTRY: 540
  CUSTODIAL PACKAGE: MEDICINE                     Washington
SUBSCRIBING PACKAGE: HEALTH SUMMARY               Salt Lake City
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 699                    ROOT: MCAR(699,
        DESCRIPTION:                        TYPE: File
   The Health Summary exports and calls the routine GMTSMCPS, which generates
   the output for the Health Summary Medicine component.  The following
   fields and cross references are being referenced:

     ^MCAR(699,     Endoscopy File
       Fields:        1  Procedure
                     20  Summary

     ROUTINE:

                              ********************

               NAME: DBIA80-C              ENTRY: 541
  CUSTODIAL PACKAGE: MEDICINE                     Washington
SUBSCRIBING PACKAGE: HEALTH SUMMARY               Salt Lake City
              USAGE: Private            APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 694                    ROOT: MCAR(694,
        DESCRIPTION:                        TYPE: File
   The Health Summary exports and calls the routine GMTSMCPS, which generates
   the output for the Health Summary Medicine component.  The following
   fields and cross references are being referenced:

     ^MCAR(694,     Hematology File
```

```
       Fields:        2     Procedure
                        1.5    Summary


     ROUTINE:
                              ********************

                NAME: DBIA80-D              ENTRY: 542
  CUSTODIAL PACKAGE: MEDICINE                      Washington
SUBSCRIBING PACKAGE: HEALTH SUMMARY                Salt Lake City
               USAGE: Private            APPROVED: APPROVED
              STATUS: Active              EXPIRES:
            DURATION: Till Otherwise Agr  VERSION:
                FILE: 697.2                  ROOT: MCAR(697.2,
         DESCRIPTION:                        TYPE: File
   The Health Summary exports and calls the routine GMTSMCPS, which generates
   the output for the Health Summary Medicine component.  The following
   fields and cross references are being referenced:

     ^MCAR(697.2,   Procedure Location File
       Fields:      .01  Name
                      1  Global Location
             Uses "C" cross reference on Global Location field.
             The "C" cross reference could result in pointing
             to global locations in the Global Location field which
             currently contains global roots for the range on files
             from ^MCAR(691, through ^MCAR(699,.

     ROUTINE:

                              ********************


                NAME:  DBIA1189-A           ENTRY: 1189
  CUSTODIAL PACKAGE:  MEDICINE                     Washington
SUBSCRIBING PACKAGE:  IMAGING                      Washington
               USAGE:  Private           APPROVED:
              STATUS:  Pending            EXPIRES:
            DURATION:  Till otherwise agreed
                FILE:                        ROOT:
         DESCRIPTION:                        TYPE: File
The purpose of this agreement is to provide access to the Medicine
package (custodian) by the Imaging package (subscriber) for the purpose of
creating a new Medicine package entry (stub:Pt ID, Date/time) as a holder
of an Imaging pointer or set of Imaging pointers.  The Imaging pointers
are set in the Field 2005, as descendants of the 0 subscript of node 2005
in each of the following files: Echo(691), Cardiac Cath(691.1),
EKG(691.5), Hematology(694), Endoscopy(699), Generalized Procedure(699.5),
and Rheumatology(701).

The Imaging routines which perform this function are as follows:
MAGMCPT* and MAGUFILR

                              **********************
```

```
               NAME:  DBIA1189-B            ENTRY: 1190
  CUSTODIAL PACKAGE:  MEDICINE                     Washington
SUBSCRIBING PACKAGE:  IMAGING                      Washington
              USAGE:  Private           APPROVED:
             STATUS:  Pending            EXPIRES:
           DURATION:  Till otherwise agreed
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: File
The purpose of this agreement is to provide access to the Medicine
package (custodian) by the Imaging package (subscriber) for the purpose of
editing (including deletion of) Medicine package Image entries.
The Imaging pointers are set in the Field 2005, as descendants of the 0
subscript of node 2005 on each of the following files: Echo(691), Cardiac
Cath(691.1), EKG(691.5), Hematology(694), Endoscopy(699), Generalized
Procedure(699.5), and Rheumatology(701).

The Imaging routines which perform this function are as follows:
MAGMCPT*, MAGUDEL* and MAGUFILR.

                        **********

               NAME:  DBIA1189-C            ENTRY: 1191
  CUSTODIAL PACKAGE:  MEDICINE                     Washington
SUBSCRIBING PACKAGE:  IMAGING                      Washington
              USAGE:  Private           APPROVED:
             STATUS:  Pending            EXPIRES:
           DURATION:  Till otherwise agreed
               FILE:                        ROOT:
        DESCRIPTION:                        TYPE: File
The purpose of this agreement is to provide access to the Medicine
package (custodian) by the Imaging package (subscriber) for the purpose of
displaying Medicine package Summary fields associated with Images.

The Imaging functions require direct global read access to the
Procedure/Subspecialty file (697.2), the Image multiple of each of the
Medicine Procedure files listed below, and the Summary field of each of the
files Listed below.

Medicine Procedure files: Echo(691), Cardiac Cath(691.1),
EKG(691.5), Hematology(694), Endoscopy(699), Generalized Procedure(699.5),
and Rheumatology(701).

The Imaging routines which perform this function are as follows:
MAGDISP, MAGMIM, MAGSUM, and MAGABLP.
```

Internal Relations

All menus and menu options are independent of each other.

Package-wide Variables

There are no package-wide variables associated with the Medicine package.

Variables which users should be aware of are MCARDIE and MCOB*, which are used by routine MCARPROC to set the Medical Patient file cross reference whenever a procedure is performed. MCARDIE is the global reference in VA FileMan DIC format and is set by the various procedure dictionaries.

How to Generate On-line Documentation

It is recommended that you print the Medicine package V. 2.3 Data Dictionaries immediately after you load the software. This is done using the VA FileMan List File Attributes option. The Medicine files currently use numbers 690 through 701. You may specify a Standard or Brief Data Dictionary as your needs require.

The first part of each Data Dictionary (in a Standard listing) is a list of other files that point to Medicine file fields. The second part is a listing of all of the cross-references for that file and a brief description of what the cross-reference is for.

To learn more about the options for the Medicine package, one may either print a more detailed option list (including things such as entry/exit actions, menu type, etc.) or D ^XUP, select XUMAINT, and then select a specific option.

Utilizing on-line documentation is the best way to obtain the most current information available. Further information for generating On-line documentation is provided in the Kernel and VA FileMan documentation. This can be obtained either from your IRM or your local ISC.

%Index can be used as a cross-reference listing of all local and global variable usage as well as other information of invaluable assistance in de-bugging. Running %INDEX V. 7.3 on this version of the Medicine package will produce the following Errors and Warnings:

`S - Routine exceeds SACC maximum size of 5000`	The new SACC standards now allow routine sizes of up to 10000.
`S - Star or pound READ used.`	The Medicine package has a SACC exemption.
`F - Invalid or wrong number of arguments to a function.`	This is a 2 argument $ORDER or $GET which is now allowed.
`F - Reference to routine '…'. That isn't in this UCI.`	Depending on the status of the Imaging package, these routines may or may not be present. The Medicine package checks for the existence of these routines before trying to use them.

[1]Appendix A - Patch MC*2.3*24

Clinical Instrument Interface Specifications

I. Purpose

This document specifies an interface between clinical instrumentation and the VA Medicine software package.

II. Overview

The Office of Information Field Office at Hines (Hines OIFO) has developed plans to implement an interface for exchange of data between clinical instrumentation and the Medicine package.

III. Installation and Configuration

Refer to Medicine Patch 24 Installation Guide for instructions on installing patch 24.

Configuration instructions (first installation and new devices):

1. Use the Start/Stop Link option in the Filer and Link Management Options menu of the HL7 package (HL Main Menu) to inactivate or activate the MCAR INST link as needed.

```
Select OPTION NAME: hl main menu       HL7 Main Menu


          Systems Link Monitor
          Filer and Link Management Options ...
          Message Management Options ...
          Interface Developer Options ...
          Site Parameter Edit


Select HL7 Main Menu Option: filer and link management options


   SM     Systems Link Monitor
   FM     Monitor, Start, Stop Filers
   LM     TCP Link Manager Start/Stop
   SA     Stop All Messaging Background Processes
   RA     Restart/Start All Links and Filers
   DF     Default Filers Startup
   SL     Start/Stop Links
   PI     Ping (TCP Only)
   ED     Link Edit
   ER     Link Errors ...
```

[1] Patch MC*2.3*24 December 2000 This entire appendix is new material.

```
Select Filer and Link Management Options Option: sl  Start/Stop Links

This option is used to launch the lower level protocol for the
appropriate device.  Please select the node with which you want
to communicate

   Select HL LOGICAL LINK NODE: MCAR INST
   The LLP was last started on OCT 26, 2000 09:47:45.
```

Inactivate the Link.

```
   Okay to shut down this job? y  YES
   The job for the MCAR INST Lower Level Protocol will be shut down.


      SM     Systems Link Monitor
      FM     Monitor, Start, Stop Filers
      LM     TCP Link Manager Start/Stop
      SA     Stop All Messaging Background Processes
      RA     Restart/Start All Links and Filers
      DF     Default Filers Startup
      SL     Start/Stop Links
      PI     Ping (TCP Only)
      ED     Link Edit
      ER     Link Errors ...


   Select Filer and Link Management Options Option: sl  Start/Stop Links

   This option is used to launch the lower level protocol for the
   appropriate device.  Please select the node with which you want
   to communicate

   Select HL LOGICAL LINK NODE: MCAR INST
```

Activate the Link.

```
   The LLP was last shutdown on NOV 06, 2000 16:03:47.
   This LLP will start on node DEV:ISC4A2 if it is run in the Background.


        Select one of the following:

             F         FOREGROUND
             B         BACKGROUND
             Q         QUIT

   Method for running the receiver: B// <RET> ACKGROUND
   Job was queued as 266473.
```

2. Through FileMan edit the Instrument HL7 Coding (#690.7) file for the instrument you are using. Create or use the name of an existing mailgroup that is responsible for processing the errors from the instrument.

```
DMGR>D P^DI


VA FileMan 22.0


Select OPTION: enter OR EDIT FILE ENTRIES



INPUT TO WHAT FILE: HL7 APPLICATION PARAMETER// 690.7  Instrument HL7 Coding
                                              (8 entries)
EDIT WHICH FIELD: ALL// <RET>


Select Instrument HL7 Coding NAME: cmore
NAME: CMore// <RET>
PROCESSING ROUTINE: MCAR7E// <RET>
MAIL GROUP FOR ERRORS: HL7 ERRORS// <RET>
```

IV. Summary of Interface and Data Requirements

Patch MC*2.3*24 is a clinical device interface system. The interface allows the clinical devices listed in Table 1 to send data to the Medicine Package using Transport Communication Protocol/ Internet Protocol (TCP/IP) and Health Level Seven (HL7) data format.

Table 1

Device Vendor	Device Type	Instrument Code
Sensormedics	Pulmonary	SMC
Medgraphics	Pulmonary	Medgraph
Medgraphics	Pulmonary	* D.I.
cMore	Endoscope	cMore
Olympus	Endoscope	OLYMPUS
Pentax	Endoscope	PENTAX
DelMar	Holter	CCF
Marquette	EKG/ECG	Muse ECG

* For Medgraphics devices that use the Data Innovations (D.I.) interface, the Sending Facility (4th piece of the message header (MSH) segment, delimited by a vertical bar "|") will contain the string "Instrument Manager". The 25th piece of the observation request (OBR) segment will then contain the Instrument Code for that device. The MSH and OBR segments will take the following format:

```
MSH|^~\&|INST-MCAR|Instrument Manager|MCAR-INST|VISTA
OBR||||||||||||||||||||||||[Instrument Code]
                                ^^^^^^
```

25th Piece of OBR String

The MSH for all other devices will take the following format:

```
MSH|^~\&|INST-MCAR|[Instrument Code]|MCAR-INST|VISTA
```

V. File Settings

The following are the parameter settings for the HL7 Application Parameter file, HL Logical Link file, and the Protocol file that are automatically set by the KIDS build (MC*2.3*24). They are listed here for your reference. Bolded fields must be set as they appear below.

HL7 Application Parameter (#771) file:

This file contains a list of VISTA applications that are capable of sending and receiving HL7 transmissions.

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

NAME: INST-MCAR                          ACTIVE/INACTIVE: ACTIVE
  COUNTRY CODE: US                       HL7 ENCODING CHARACTERS: ^~\&
  HL7 FIELD SEPARATOR: |
```

HL Logical Link (#870) file:

This file stores parameters that govern the behavior of the Logical Links, and also stores information that drives the SYSTEMS LINK MONITOR display option.

```
NODE: MCAR INST                          LLP TYPE: TCP
  QUEUE SIZE: 100                        RE-TRANSMISSION ATTEMPTS: 3
  ACK TIMEOUT: 60                        EXCEED RE-TRANSMIT ACTION: ignore
  TCP/IP PORT: 1026                      TCP/IP SERVICE TYPE: SINGLE LISTENER
  PERSISTENT: NO
```

Protocol (#101) file:

This file contains the methods (protocols) for processing the HL7 messages.

```
NAME: MCAR Device Client                    ITEM TEXT: Instrument Device Client
  TYPE: subscriber                          CREATOR: LUSHENE,ROBERT E
  PACKAGE: MEDICINE
 DESCRIPTION:   Subscriber protocol for sending data to VISTA from clinical
 instruments.
  TIMESTAMP: 57540,31165                    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 ^MCAR7A             SENDING FACILITY REQUIRED?: NO
  RECEIVING FACILITY REQUIRED?: NO


NAME: MCAR Device Server                    ITEM TEXT: Instrument HL7 Event Driver
  TYPE: event driver                        CREATOR: LUSHENE,ROBERT E
  PACKAGE: MEDICINE
 DESCRIPTION:   This protocol is used by the HL7 package to send results to
 VISTA from various clinical instrumentation.
  TIMESTAMP: 57631,55707                    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
```

*** NOTE:** Version ID should match what the instrument is sending.

VI. Technical Issues

1. For all sites:

   a. Kernel Patch XU*8.0*146 has been released and must be installed prior to this installation to prevent the Medicine patch (MC*2.3*24) from over-writing any existing HL Logical Links.

   b. To avoid error messages because of a missing or invalid 'Event Protocol', 'Invalid Processing Code', 'Invalid Application Code', etc., make sure that all settings (except TCP/IP PORT and TCP/IP ADDRESS, in the HL Logical Link (#870) file, which are site specific) are the same as the file settings listed earlier. Be sure that the VERSION ID parameters in the Protocol (#101) file are set to the same HL7 Version that is being sent by the vendor instrument. The ITEM and SUBSCRIBERS fields in the Device Server entry in the Protocol (#101) file MUST be the same as the Device Client name.

2. For Sensormedics interfaces only:

   Because the VISTA HL7 package returns a 2 part acknowledgement (ACK) to the instrument, the following solution will allow the Sensormedics device to process the ACK directly.

   Solution:
   - In the Vmax software Reports option, select NETLINK/IS.
   - Then on the Transmission Setup pull-down menu, select Configuration.
   - If the "Wait for Host Acknowledgement Messages" box is not checked, check it.
   - Change the entry in the "Number of ACK messages" box from 1 to 2.
   - Press the F3 key to store changes and exit the software.

   There are also several special VA files that Sensormedics has set up. You will need to acquire a copy of the SensorMedics NetLink/IS software for each Vmax system that will be sending patient data to VISTA. This software will be installed on the Vmax pulmonary system(s) using the Software Installation routine found in the Setup menu of the Vmax main screen. The following 3 files should be extracted into the C:\VISION directory on the Vmax pulmonary system(s) that will be interfaced to VISTA, overwriting any file of the same name that may be there:

   a. XMITHDFT.DBF - This is a file containing the special header and footer lines that comply with the patch requirements in VISTA.
   b. SMVADEF.DBF - This is the VA definition file for the SensorMedics NetLink/IS software. It contains definitions of all of the OBX segments that can be sent using the HL7 NetLink/IS engine.
   c. REPLACE. - This is a 'housekeeping' file that causes the NetLink/IS software to replace any HL7 control character entered from the keyboard with a space.

3. For Olympus interfaces only:

   Verify that the following keys in the [HL7 Parameters] section of the OLYHLUPL.INI file appear as below. If the keys do not appear as below, call your Olympus representative.

   a. Sending_Application=INST-MCAR
   b. Sending_Facility=OLYMPUS
   c. Receiving_Application=MCAR-INST
   d. Receiving_Facility=VISTA

   (these correspond to the MSH fields described earlier)

VII. Problem Solving

Join the mailgroup on FORUM called "ER, MEDICINE" for discussion on this patch. Use this mail group to discuss problems and issues with any Medicine device interfaces. For help on joining a mailgroup, refer to Mailman help on FORUM.

VIII. Interfacing with New Devices

1. Determine whether your site is willing to test the device.
2. Contact the vendor and find out if they use HL7 through TCP/IP.
3. Get the name, address, and phone number of a contact person for the vendor.
4. Send all necessary information to the Hines OI Field Office.

IX. HL7 Data Formats

A. Rationale:

The function of the HL7 coding scheme is to define a data stream that will pass coded, addressed clinical data across a distributed network.

B. Methodology:

A complete collection of data, a complete procedure, or a complete report is transferred between systems by a single message. This message is comprised of a group of segments in a defined sequence.

A segment is defined by its first three characters, which identify segment type, and is terminated by a carriage return. The subcomponents of segments are data fields that are in a fixed order, of variable length, and are delimited by a field separator for which the default specified by HL7 is the vertical bar (|).

The message type used by these interfaces is an "ORU^R01", Observation Result Unsolicited (unsolicited transmission of requested observation). The first segment is the message header (MSH). Other segments in the message include the patient identification (PID), the observation request (OBR), and observation (OBX).

****
NOTE:
Only MSH, PID, OBR and OBX segments are required, any other segments will be ignored.
****

The first character found after the "MSH" defines the field separator for the remainder of the message. In practice, the vertical bar has been generally accepted. The next four characters, the second field in the MSH segment, define the component separator, the repetition separator, the escape character, and the subcomponent separator. The characters generally used to portray these are "^~\&" (circumflex, tilde, backslash, ampersand).

C. Sample Clinical Scenario for Vendor-Initiated Messaging:

The physician uses the vendor equipment to enter findings in a report and performs whatever action is necessary to trigger the vendor software to create and send to VISTA an HL7 ORU message containing the report. VISTA accepts and files the report and sends a positive acknowledgement (ACK) message, or rejects the report and sends an HL7 response (ACK) indicating why it was rejected.

D. Data tables:

The following HL7 **messages** are used to support the exchange of Medicine data:

ACK General Acknowledgement
ORU Observational Results Unsolicited

The following HL7 **segments** are used to support the exchange of Medicine data:

MSA Message Acknowledgement
MSH Message Header
PID Patient Identification
OBR Observational Request
OBX Result

Following is a list of Data Types:

ST string
TS timestamp
PN person name
ID coded value
CK composite with check digit
CN composite number and name
CE coded element

Following are the various data record fields in tabular form, along with their definitions. The columns shown are sequence number, M (MUMPS) piece - delimited by field separator, maximum length, data type, whether the element is Required or Optional, the element name, and the values that the element may have.

MSH table

Seq #	M piece	Len	DT	R/O	Element Name	Values (lower case=variable)
1	N/A	1	ST	R	FIELD SEPARATOR	|
2	2	4	ST	R	ENCODING CHARACTERS	^~\&
3	3	15	ST	R	SENDING APPLICATION	INST-MCAR
4	4	20	ST	O	SENDING FACILITY	Instrument Code
5	5	15	ST	R	RECEIVING APPLICATION	MCAR-INST
6	6	30	ST	R	RECEIVING FACILITY	VISTA
7	7	26	TS	O	DATE/TIME OF MSG	Yyyymmddhhmmss
9	9	7	ID	R	MESSAGE TYPE	ORU^R01
10	10	20	ST	O	MESSAGE CONTROL ID	Message identifier
12	12	8	ID	R	VERSION ID	HL7 version

FIELD SEPARATOR: Character used to separate fields in message segments. The default is the ASCII decimal 124 (vertical bar).

ENCODING CHARACTERS: Characters used as component separator, repetition separator, escape character and subcomponent separator respectively. The defaults are ASCII decimals 94, 126, 92, 38 (circumflex, tilde, backslash, ampersand).

SENDING APPLICATION: Application parameter (file #771) used by instrument.

SENDING FACILITY: Instrument Code used by vendor (i.e., SMC, Muse ECG).

RECEIVING APPLICATION: Application parameter used by VISTA.

RECEIVING FACILITY: System receiving the information.

DATE/TIME OF MSG: Date/time stamp when message was sent by instrument.

MESSAGE TYPE: Type of message being sent by instrument.

MESSAGE CONTROL ID: Unique alphanumeric identifier for the message.

VERSION ID: Version of HL7 messages that the instrument will be sending to VISTA.

PID table

Seq #	M piece	Len	DT	R/O	Element Name	Values (lower case=variable)
3	4	16	CK	R	PATIENT ID	Patient ID – (social security #)
5	6	48	PN	R	PATIENT NAME	Last^First^Middle initial
19	20	16	CK	O	PATIENT SSN	Social security number

PATIENT ID: This is the patient ID number, usually social security number. Format can include hyphens.

PATIENT NAME: This is a three component field – Last name^First name^Middle initial.

PATIENT SSN: This is the patient's social security number, because some systems use sequence #3 for another type of patient ID.

****
NOTE:
Either sequence #3 OR sequence #19 OR both MUST be present.
****

OBR table

Seq #	M piece	Len	DT	R/O	Element Name	Values (lower case=variable)
4	5	48	CE	R	UNIVERSAL SERVICE ID	Code^text^code type
7	8	14	TS	R	OBSERVATION DATE/TIME	Yyyymmddhhmmss
25	26	1	ID	O	RESULT STATUS	F or C
31	32	40	CE	O	REASON FOR STUDY	ICD9 code
32	33	60	CN	O	RESULT INTERPRETER	Last name^First name^MI
34	35	60	CN	O	TECHNICIAN	Last name^First name^MI

UNIVERSAL SERVICE ID: This is a 3-component field. The first component is the synonym for the procedure (i.e. COL, ENDO, 93005). The second component is a free text identifier for the procedure (i.e. Colonoscopy, Endoscopy, Holter). The third component is optional, and can identify the type of synonym in the first component (i.e. CPT4 for a CPT code in the first component).

OBSERVATION DATE/TIME: Date/time stamp of when the result was generated.

RESULT STATUS: Status code for result – F = Final, C = Correction.

REASON FOR STUDY: ICD9 code that prompted the procedure to be performed.

RESULT INTERPRETER: Name of interpreting physician – Last name^First name^Middle initial.

TECHNICIAN: Name of technician giving test – Last name^First name^Middle initial.

OBX table

Seq #	M piece	Len	DT	R/O	Element Name	Values (lower case=variable)
2	3	2	ID	O	VALUE TYPE	Type of data contained in result
3	4	80	CE	R	OBSERVATION ID	Identifier for result data
5	6	65536	ST	R	RESULT	Data
6	7	20	ST	R	UNITS	Unit of measure for result

VALUE TYPE: Allowable result data types include: CD = Channel definition, CE = Coded entry, ED = Encapsulated data, FT = Formatted text, MA = Multiplexed array, NA = Numeric array, NM = Numeric data, RP = Reference pointer, ST = String data, TS = Timestamp, TX = Text.

OBSERVATION ID: Identifiers can be text (i.e. “Height”, “Weight”), or codes that are pointers to an observation identifier global.

RESULT: Data field that holds the result value for the identifier in observation ID.

UNITS: Unit of measure used in conjunction with value and observation ID above.

MSA table

Seq #	M piece	Len	DT	R/O	Element Name	Values (lower case=variable)
1	2	2	ID	R	ACKNOWLEDGEMENT CODE	AA or AR
2	3	20	ST	R	MESSAGE CONTROL ID	Message identifier
3	4	80	ST	O	TEXT MESSAGE	Reason report was rejected

ACKNOWLEDGEMENT CODE: Code signifying that a message has been accepted (AA), or rejected (AR) by VISTA.

MESSAGE CONTROL ID: Unique alphanumeric identifier sent by the instrument in the MSH segment and returned in the acknowledgement segment.

TEXT MESSAGE: The reason why a report was rejected.

[1]Glossary

Atrial	A term for the left and right upper chamber of the heart.
Clinical Instrument	An instrument (device) that generates reports and other data dealing with a specific type of test for the patient.
Clinical Instrument Interface	An interface designed to support the exchange of data between a clinical instrument and the Medicine package.
Device Type	The type of test performed and reported on by a specific clinical instrument (e.g., pulmonary, endoscope).
Device Vendor	The company that designs clinical instruments (devices) that generate reports and other data dealing with a specific type of test (e.g., Sensormedics, Medgraphics).
HL7	Health Level Seven. A messaging standard that forms the basis for the exchange of health care information between VISTA systems and non-VISTA systems that generate results information in the form of reports and impressions.
HL7 Messages	A unit of data transferred between systems that is comprised of a group of segments in a defined sequence.
HL7 Segments	A logical grouping of data fields contained in an HL7 message.
Instrument Code	The identifying code transmitted by the clinical instrument.
Mitral	The cardiac valve located between the left atrium and left ventricle.
Morphology	The shape or form of a P, QRS, or T wave.
Pulmonary	A reference to the part of circulation supplied by the pulmonary artery.
Systemic	A reference to the part of circulation supplied by the aorta.
TCP/IP	Transport Communication Protocol/ Internet Protocol. The leading standard of communication between computers in a networked environment.
Ventricular	A term for the left or right lower chamber of the heart.

[1] Patch MC*2.3*24 December 2000 This entire glossary has been changed.

VISTA	Veterans Health Information Systems and Technology Architecture.

[1]Index

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[1] Patch MC*2.3*24 December 2000 This entire index is new material.

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