INTAKE AND OUTPUT

TECHNICAL MANUAL AND PACKAGE SECURITY GUIDE

Version 4.0

April 1997

Preface

The Intake and Output Technical Manual and Package Security Guide has been developed for IRMS (Information Resource Management Service) and CIOFO (Chief Information Office Field Office) support personnel and contains technical information on the application. The content covers: software implementation and maintenance, routine descriptions, a file list, an exported option list, cross-references, security issues, archiving and purging, resource requirements, callable routines, external relations, package-wide variables, and on-line documentation.

The Intake and Output Technical Manual and Package Security Guide is one of four manuals associated with the application. Information discussing the functionality of the software's menus and options is found in the Intake and Output User Manual. Information critical to the successful installation of the software can be found in the Intake and Output Installation Guide. New release changes can be found in the Intake and Output Release Notes.

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Introduction

The Intake and Output (I&O) application is designed to store, in the patient's electronic medical record, all patient intake and output information associated with a patient's hospital stay or outpatient visit. This application is not service specific and currently is interfaced with the PIMS (MAS), Nursing, and Pharmacy applications.

Functionality:

- Users may electronically document patient intake (e.g., oral fluids, tube feedings, intravenous fluids, irrigations, and other types of intake defined by the facility) and patient output (e.g., excreted patient material such as urine, nasogastric secretions, emesis, drainage, liquid feces/stool, and other types of output defined by the facility).

- Intake data can be entered through either a quick or detailed route. The quick route documents the total fluid consumed. Detailed information requests the user to enter specific type of fluid intake (e.g., orange juice, water, soup) along with the quantity absorbed.

- The Start/Add/DC IV and Maintenance option contains seven protocols associated with intravenous therapy:

    1. Start IV - Start a new IV line or heparin/saline lock/port.
    2. Solution: Replace/DC/Convert/Finish Solution - DC current solution then replace a new solution to the selected IV line or convert the IV according to the user's choice.
    3. Replace Same Solution - Replace the same solution to a selected IV.
    4. D/C IV Lock/Port and Site - Remove IV/lock/port from a selected IV site.
    5. Care/Maintenance/Flush - Check site condition, dressing change, tube change and flush.
    6. Add Additional Solutions(s) - Add additional solution(s) without discontinuing an existing one.
    7. Restart DC'd IV - Restart an IV which was DC'd due to infiltration or other reasons.
    8. Adjust Infusion Rate - Adjust infusion rate for a selected IV.
    9. Flush - Flush all IV line(s) for a selected infusion site.

- The software supports documentation of intravenous intake via both single and multi-lumen catheters.

- The software is interfaced with the IV module of the Pharmacy software.

- The following reports are included:

    Print I/O Summary by Patient (by Shift and Day(s))
    Print I/O Summary (Midnight to Present)
    Print I/O Summary (48 Hrs)
    24 Hours Itemized Shift Report
    Intravenous Infusion Flow Sheet

    The last four reports can be printed for all patients on a ward, for patients in selected rooms on a ward, and for an individual patient.

- Patient Intake and Output information is printed on the following Nursing application reports:

    End of Shift Report
    Vital Signs Record
    Expanded SF511 Report (Itemized I/O)

This version of Intake and Output is not interfaced with the Health Summary or the Order Entry/Results Reporting applications.

Chapter 1 Implementation and Maintenance

Description:

This chapter provides guidelines for implementing the Intake and Output (I&O) application. It is important to complete all of the steps contained in this chapter before assigning menu options to patient care services staff.

Virgin Installation of Software:

The following steps should be followed when the Intake and Output software is installed in an environment where no previous installation of the Intake and Output application has taken place.

1. Setting up the software environment

Information Resource Management Services (IRMS) staff must install the software using the Installation Guide in either a test environment or the production (VAH) directory. The following V*IST*A (Veterans Health Information Systems and Technology Architecture) packages should reside in the environment where the Intake and Output application is to be installed:

  a. Kernel V. 8.0 or greater,
  b. Kernel Toolkit V. 7.3 or greater,
  c. VA FileMan V. 21 or greater,
  d. PIMS (MAS) V. 5.3 or greater,
  e. Inpatient Medications V. 4.5 or greater (optional).

The Intake and Output software must be installed before the Nursing (V. 4.0) application can be installed because specific Nursing (V. 4.0) options are dependent upon the Intake and Output routines. Data entered into the test environment CANNOT be transferred into the production environment. It is recommended that a limited amount of data be entered into the test directory in order for the user to become familiar with the application and to establish an acceptable training data base.

The Intake and Output application displays ordered IV solutions (for a patient) from the Inpatient Medications software. Without Inpatient Medications loaded, users may still implement the Start/Add/DC IV and Maintenance module of the Intake and Output package.

2. Name spacing and file listing.

Intake and Output is found in the GMRY namespace. All routines, templates and options begin with GMRY. File numbers are in the range of 126 to 126.95 and are stored in the ^GMR and ^GMRD globals.

3. Editing site configurable files

    a. The Intake Type option edits the GMRY Input Type (#126.56) file.

    b. The Output Type option edits the GMRY Output Type (#126.58) file.

    c. The Output Subtype option edits the GMRY Output Subtype (#126.6) file.

    d. The Intake Items option edits the GMRY Intake Items (#126.8) file.

    e. The IV Site option edits the GMRY IV Site (#126.7) file.

    f. The IV Solution option edits the GMRY NUR IV Solution (#126.9) file.

    g. The Shift Starting Hour and Other Parameters option edits the GMRY NUR Shift/Other (#126.95) file.

    h. The IV Site Description option edits the GMRY IV Site Description (#126.72) file.

    i. The IV Catheter option edits the GMRY IV Catheter (#126.74) file.

    j. The IV DC'ed Reason option edits the GMRY IV DC'ed Reason (#126.76) file.

A primary concern for the ADP Coordinator is the Configure I/O Files (Option 9) in the GMRYMGR menu option that contains the options listed in a-j (above). This option allows you to enter: a) various IV or oral fluids and the amount in milliliters associated with containers, b) names of IV sites that may be specific to your facility, c) various needle sizes and other items associated with the Intake and Output software. The package is exported with a few file entries but you have the opportunity to enter information which will meet the needs of your facility since these are site configurable files.

4. Queueing TaskMan jobs.

No scheduled TaskMan options are associated with this application.

5. GMRY and NUR I&O options.

There is a separate set of similar options that are used to document and print I&O data in both the Intake and Output, and the Nursing applications. In the Intake and Output package, the software identifies a patient's ward or clinic location using the Hospital Location (#44) file. The Nursing package uses the Nursing Location (#211.4) file to identify an inpatient's associated nursing unit. Providing access to I&O options through the Nursing application was done for the convenience of nursing package users to streamline their inpatient workload. All data entered through either package is stored in the Intake and Output application's files.

6. Assigning menus.

The GMRYMGR menu contains the following menus and options and is the primary menu for the application's ADP Coordinator.

```
Select OPTION NAME: GMRYMGR   Patient Intake/Output Menu

    1       Enter/Edit Patient Intake
    2       Enter/Edit Patient Output
    3       Start/Add/DC IV and Maintenance
    4       Print I/O Summary by Patient (by Shift & Day(s))
    5       Print I/O Summary (Midnight to Present)
    6       Print I/O Summary (48 Hrs)
    7       24 Hours Itemized Shift Report
    8       Intravenous Infusion Flow Sheet
    9       Configure I/O Files (ADP Coordinator Only) ...
```

Clinical staff should be assigned options 1-8. Option 9 is assigned to the Intake and Output application coordinator. You will note that options 4 through 8 are print options. We suggest that options 4 through 7 be given to physicians, dietitians and others who may have an interest in viewing a patient's or location's Intake and Output.

The following table is a reference for print/sort parameters for the reports using menu option numbers.

OPTION	DATE RANGE	WARD	SELECTED RM	PATIENT	SCREEN PRT	ITEMIZED*
4	YES	NO	NO	YES	YES	NO
5	NO	YES	YES	YES	YES	NO
6	NO	YES	YES	YES	YES	NO
7	YES	YES	YES	YES	YES	YES
8	YES	YES	YES	YES	YES	YES(IV)

*NOTE: For intake to be itemized DETAILED INPUT in the Enter/Edit Patient Intake option must be used. IV solutions will display names from the IV option.

7. Printer related issues

Reports can be printed on a dot matrix printer or a laser printer. There are no linear graphic reports for this version of Intake and Output.

Non-Virgin Installation of Software

Follow steps 1 through 8 (above) when preparing the Intake and Output software for use in an environment where a previous version of the application has been installed.

Resource Requirements

1. Data Entry and Printer Devices:

The minimal hardware requirements for input and output devices is dependent upon the location in which patient care is provided and the quality of reports generated.

Input devices: In an inpatient setting, there should be a sufficient number of data input devices at the point of care, in the nurse's station, physician offices, and conference rooms. Ambulatory Care settings should provide input devices at the point of care, physician offices, conference rooms and reception areas.

Output devices: There should be minimally one to two laser printers on an inpatient unit to support this application. Ambulatory care area should have a printer in both the reception area and a centralized location in each clinic.

2. Disk Storage:

The following statistics regarding the disk storage requirements of the Intake and Output software were compiled by the Alpha/Beta test sites.

Globals	Type of Data	Size
DDs		90 k
GMR	Patient data for the Text Generator, Vitals/Measurements and Intake and Output Modules	5-20 k/ patient

Globals	Type of Data	Size
GMRD	Static data for the Text Generator, Vitals/Measurements and Intake and Output Modules	20 k depending on the global efficiency

Future Plans:

Intake and Output will be enhanced in later versions to meet the needs of the medical facilities. A link with Health Summary is planned.

Chapter 2 Routine Descriptions

```
GMRYCATH   ;HIRMFO/YH-UTILITY FOR CATHETER AND OTHER ;11/6/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYDCIV   ;HIRMFO/YH-DISCONTINUE IV LINES AND INFUSION SITE ;8/15/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYDIR    ;HIRNFO/YH-REPLACE...WITH ;12/14/95
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYED0    ;HIRMFO/YH-INTAKE, OUTPUT AND IV ENTRY POINTS ;5/2/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYED1    ;HIRMFO/YH-ENTER/EDIT PATIENT INTAKE/OUTPUT ;1/17/97
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYED2    ;HIRMFO/YH-PATIENT SEARCH/START IV ;1/17/97
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYED3    ;HIRMFO/YH-START IV AND IV MAINTENANCE ENTRY POINT ;9/10/92
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYED4    ;HIRMFO/YH-INTRAVENOUS INFUSION PROTOCOL ;10/16/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYED5    ;HIRMFO/YH-IV ACCESS, IV SOLUTIONS AND CATHETERS ;10/3/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYED6    ;HIRMFO/YH-D/C IV AND IV SITE MAINTENANCE ;9/10/92
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYFILE   ;HIRMFO/FT-Set I/O File Security ;3/5/97  16:41
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYFLSH   ;HIRMFO/YH-FLUSH IV LINES FOR A SELECTED IV SITE ;6/5/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYFLW0   ;HIRMFO/YH-INTRAVENOUS INFUSION FLOW SHEET ;1/25/93
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYFLW1   ;HIRMFO/YH-INTRAVENOUS INFUSION FLOW SHEET CONT. ;8/9/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYFLW2   ;HIRMFO/YH-IV FLOW SHEET UTILITY ;8/9/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYINFS   ;HIRMFO/YH-ADJUST INFUSION RATE ;4/5/94
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYINTK   ;HIRMFO/YH-PATIENT INTAKE ;11/6/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYMNT    ;HIRMFO/YH-SITE CARE/MAINTENANCE/FLUSH ;8/13/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYMNT1   ;HIRMFO/YH-IV CARE/MAINTENANCE/FLUSH (CONTINUE) ;8/13/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYPSIV   ;HIRMFO/YH-DISPLAY ACTIVE PATIENT IV ORDER ;5/22/96
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYRP0    ;HIRMFO/YH-PATIENT INTAKE/OUTPUT REPORT ;2/25/91
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYRP1    ;HIRMFO/YH-TMP FOR PATIENT INTAKE/OUTPUT REPORTS-1 ;2/28/91
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYRP2    ;HIRMFO/YH-TMP FOR PATIENT INTAKE/OUTPUT REPORTS-2 ;2/28/91
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYRP3    ;HIRMFO/YH-PATIENT INTAKE/OUTPUT REPORT HEADING ;3/6/91
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYRP4    ;HIRMFO/YH-TMP FOR SUMMING UP PATIENT I/O ;3/6/91
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYRP5    ;HIRMFO/YH,RM-PATIENT SEARCH BY MAS WARD ;11/7/95
           ;;4.0;Intake/Output;;Mar 31, 1997
GMRYSE0    ;HIRMFO/YH-ITEMIZED PATIENT I/O REPORT BY SHIFT PART 1 ;5/13/96
           ;;4.0;Intake/Output;;Mar 31, 1997
```

```
GMRYSE1   ;HIRMFO/YH-ITEMIZED PATIENT I/O REPORT BY SHIFT PART 2 ;5/13/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYSE2   ;HIRMFO/YH-ITEMIZED PATIENT I/O REPORT BY SHIFT PART 3 ;3/11/91
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYSE3   ;HIRMFO/YH-ITEMIZED PATIENT I/O REPORT BY SHIFT PART 4 ;5/13/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYSTCA  ;HIRMFO/YH-IV SITE AND CATHETER SELECTION ;3/1/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT0   ;HIRMFO/YH-PATIENT I/O UTILITIES - PATIENT SEARCH AND IV DISPLAY
;2/12/91
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT1   ;HIRMFO/YH-PATIENT I/O UTILITIES - IV SEARCH BY TYPE ;2/14/91
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT10  ;HIRMFO/YH-IV RESTART ;6/11/93
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT11  ;HIRMFO/YH-IV FLUSH ;10/18/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT12  ;HIRMFO/YH-ROOM SEARCH AND OTHER UTILITIES ;11/6/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT13  ;HIRMFO/YH-INTRAVENOUS INFUSION PROTOCOL ;10/16/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT2   ;HIRMFO/YH-PATIENT I/O UTILITIES - CALLS FROM DD AND IV SITE CHECK
;5/10/91
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT3   ;HIRMFO/YH-PATIENT I/O UTILITIES - DIC CALL ;11/6/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT4   ;HIRMFO/YH,RM-PATIENT SELECTION BY UNIT, ROOM OR SINGLE PATIENT
;11/7/95
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT5   ;HIRMFO/YH-UTILITIES FOR IV INPUT/OUTPUT TRANSFORM ;5/13/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT6   ;HIRMFO/YH-IV SOLUTION SELECT FROM PHARMACY/NURS FILES ;5/13/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT7   ;HIRMFO/YH-IV SOLUTION SELECT TO START ;10/16/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT8   ;HIRMFO/YH-IV/LOCK/PORT ENTER/EDIT ;2/12/91
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYUT9   ;HIRMFO/YH-LIST/SELECT IV LINES ;10/15/96
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYXENV  ;HIRMFO/FT-Environment Check for intake & Output v4.0  ;1/21/97
14:26
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYXPOS  ;HIRMFO/YH,RM-POST INITIALIZATION FOR INTAKE/OUTPUT ;1/22/97
          ;;4.0;Intake/Output;;Mar 31, 1997
GMRYXPRE  ;HIRMFO/YH,RM-PRE INITIALIZATION FOR INTAKE/OUTPUT ;1/22/97
          ;;4.0;Intake/Output;;Mar 31, 1997
```

Chapter 3 File List and Related Information

File Descriptions

GMRY PATIENT I/O FILE 126
This file contains a patient's intake and output measurements.

GMRY INPUT TYPE 126.56
This file contains a list of major input/intake types such as PO, TUBE
FEEDING, etc. The ADP Coordinator is allowed to configure the file entries.

GMRY OUTPUT TYPE 126.58
This file contains the major output types such as URINE, STOOL, DRAINS,
etc. The ADP Coordinator is allowed to configure the file entries.

GMRY OUTPUT SUBTYPE 126.6
This file contains subtypes associated with the output types. For example,
void, foley and suprapubic are subtypes of the output type urine. The ADP
Coordinator is allowed to configure the file.

GMRY IV SITE 126.7
This file contains a list of IV infusion sites. The ADP Coordinator is allowed to
configure the file.

GMRY IV SITE DESCRIPTION 126.72
This file contains descriptions of IV infusion site conditions. The ADP Coordinator
is allowed to enter/edit the file entries.

GMRY IV CATHETER 126.74
This file contains the names of IV catheters in different types and sizes. The ADP
Coordinator is allowed to enter/edit the file entries.

GMRY IV DC'ED REASON 126.76
This file contains reasons why the IV infusion site was discontinued. The ADP
Coordinator is allowed to enter/edit the file.

GMRY INTAKE ITEMS 126.8
This file contains NON-IV intake items such as tea, coffee, etc. The ADP
Coordinator is allowed to configure the file.

GMRY NUR IV SOLUTION 126.9
This file contains names of IV solutions used for the Intake and Output application.
An entry is used when no V*IST*A Pharmacy order is available. The ADP
Coordinator is allowed to enter/edit the file entries.

GMRY NUR SHIFT/OTHER 126.95
This file contains the various site configurable parameters for the Intake and
Output application.

Package Default Definition

```
                                  UP    SEND  DATA             USER
                                  DATE  SEC.  COMES SITE  RSLV OVER
FILE #    NAME                     DD    CODE  W/FILE DATA  PTS  RIDE
-------------------------------------------------------------------------
126       GMRY PATIENT I/O FILE    YES   YES   NO
126.56    GMRY INPUT TYPE          YES   YES   YES   ADD   YES  YES
126.58    GMRY OUTPUT TYPE         YES   YES   YES   ADD   YES  YES
126.6     GMRY OUTPUT SUBTYPE      YES   YES   YES   ADD   YES  YES
126.7     GMRY IV SITE             YES   YES   YES   ADD   YES  YES
126.72    GMRY IV SITE DESCRIPTION YES   YES   YES   ADD   YES  YES
126.74    GMRY IV CATHETER         YES   YES   YES   ADD   YES  YES
126.76    GMRY IV DC'ED REASON     YES   YES   YES   ADD   YES  YES
126.8     GMRY INTAKE ITEMS        YES   YES   YES   ADD   YES  YES
126.9     GMRY NUR IV SOLUTION     YES   YES   YES   ADD   YES  YES
126.95    GMRY NUR SHIFT/OTHER     YES   YES   YES   ADD   YES  YES
```

Chapter 4 Exported Options

Menu Options by Name

```
NAME: GMRY DC REASON                    MENU TEXT: IV DC'ed Reason
  TYPE: edit                            CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O         E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows the ADP coordinator to edit reasons for
 discontinuing an IV into the GMRY IV DC'ED REASON file (#126.76).
  EXIT ACTION: K DIDEL,DLAYGO           ENTRY ACTION: S (DIDEL,DLAYGO)=126.76
  DIC {DIC}: GMRD(126.76,              DIC(0): AEMQL
  DIE: GMRD(126.76,                     DR {DIE}: .01;
  UPPERCASE MENU TEXT: IV DC'ED REASON

NAME: GMRY EDIT INTAKE                  MENU TEXT: Enter/Edit Patient Intake
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O         E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows the user to enter or edit patient IV and
 NON-IV intake records.
  EXIT ACTION: K GMROUT
  ENTRY ACTION: I $G(^GMRD(126.95,1,"OFF")) S XQUIT=1
  ROUTINE: EN3^GMRYED0                  TIMESTAMP: 55106,45597
  UPPERCASE MENU TEXT: ENTER/EDIT PATIENT INTAKE

NAME: GMRY EDIT OUTPUT                  MENU TEXT: Enter/Edit Patient Output
  TYPE: run routine                     CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O         E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:   This option allows the user to enter or edit patient output
 records.
  EXIT ACTION: K GMROUT
  ENTRY ACTION: I $G(^GMRD(126.95,1,"OFF")) S XQUIT=1
  ROUTINE: EN2^GMRYED0                  TIMESTAMP: 55105,46935
  UPPERCASE MENU TEXT: ENTER/EDIT PATIENT OUTPUT

NAME: GMRY FILE EDIT
  MENU TEXT: Configure I/O Files (ADP Coordinator Only)
  TYPE: menu                            CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O         E ACTION PRESENT: YES
 DESCRIPTION:   This menu is provided for the ADP coordinator to configure the
 following file entries: GMRY INPUT TYPE (#126.56), GMRY OUTPUT TYPE
(#126.58),
 GMRY OUTPUT SUBTYPE (#126.6), GMRY IV SITE (#126.7), GMRY INTAKE ITEMS
 (#126.8), GMRY NUR IV SOLUTION (#126.9), GMRY NUR SHIFT/OTHER (#126.95), GMRY
 IV SITE DESCRIPTION (#126.72), GMRY IV CATHETER (#126.74) and GMRY IV DC'ED
 REASON (#126.76).
ITEM: GMRY INPUT FILE1                   SYNONYM: 1
  DISPLAY ORDER: 1
ITEM: GMRY OUTPUT FILE1                  SYNONYM: 2
  DISPLAY ORDER: 2
ITEM: GMRY OUTPUT FILE2                  SYNONYM: 3
  DISPLAY ORDER: 3
ITEM: GMRY INTAKE ITEMS                  SYNONYM: 4
  DISPLAY ORDER: 4
ITEM: GMRY IV SITE                       SYNONYM: 5
  DISPLAY ORDER: 5
ITEM: GMRY IV SOL                        SYNONYM: 6
  DISPLAY ORDER: 6
ITEM: GMRY NURSHIFT                      SYNONYM: 7
  DISPLAY ORDER: 7
ITEM: GMRY SITE DESCRP                   SYNONYM: 8
  DISPLAY ORDER: 8
```

```
ITEM: GMRY IV CATH                          SYNONYM: 9
  DISPLAY ORDER: 9
ITEM: GMRY DC REASON                        SYNONYM: 10
  DISPLAY ORDER: 10
  ENTRY ACTION: I $G(^GMRD(126.95,1,"OFF")) S XQUIT=1
  TIMESTAMP: 56656,39523
  UPPERCASE MENU TEXT: CONFIGURE I/O FILES (ADP COORD

NAME: GMRY I/O 48HRS                        MENU TEXT: Print I/O Summary (48 Hrs)
  TYPE: run routine                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION:    This option summarizes patient intake/output for the previous
 day and today.
  ROUTINE: EN5^GMRYRP0                       TIMESTAMP: 55441,54683
  UPPERCASE MENU TEXT: PRINT I/O SUMMARY (48 HRS)

NAME: GMRY I/O CURRENT
  MENU TEXT: Print I/O Summary (Midnight to Present)
  TYPE: run routine                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION:    This option summarizes current patient intake/output.
  ROUTINE: EN4^GMRYRP0
  UPPERCASE MENU TEXT: PRINT I/O SUMMARY (MIDNIGHT TO

NAME: GMRY I/O SHIFT AND EVENT
  MENU TEXT: 24 Hours Itemized Shift Report
  TYPE: run routine                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION:    This option produces itemized patient intake and output
reports by shift for a period of time as defined by the user.
  ROUTINE: EN1^GMRYSE0
  UPPERCASE MENU TEXT: 24 HOURS ITEMIZED SHIFT REPORT

NAME: GMRY I/O SUM
  MENU TEXT: Print I/O Summary by Patient (by Shift & Day(s))
  TYPE: run routine                         CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION:    This option summarizes patient intake/output by major category
 and shift for a period of time as defined by the user.
  ROUTINE: EN1^GMRYRP0                       TIMESTAMP: 55427,53365
  UPPERCASE MENU TEXT: PRINT I/O SUMMARY BY PATIENT (

NAME: GMRY INPUT FILE1                      MENU TEXT: Intake Type
  TYPE: edit                                CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O             E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:    This option is used by the ADP coordinator to configure the
 NON-IV intake type entries for the GMRY INPUT TYPE file (#126.56).  For
 example, PO, TUBE FEEDING, and OTHER are input types.
  EXIT ACTION: K DLAYGO                      ENTRY ACTION: S DLAYGO=126.56
  DIC {DIC}: GMRD(126.56,                    DIC(0): AEMQL
  DIE: GMRD(126.56,                          DR {DIE}: .01;1
  UPPERCASE MENU TEXT: INTAKE TYPE

NAME: GMRY INTAKE ITEMS                     MENU TEXT: Intake Items
  TYPE: edit                                CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O             E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION:    This option allows the ADP coordinator to enter items into the
 GMRY INTAKE ITEMS file (#126.8) pointed to by the GMRY PATIENT I/O FILE file
 (#126).
  EXIT ACTION: K DLAYGO                      ENTRY ACTION: S DLAYGO=126.8
  DIC {DIC}: GMRD(126.8,                     DIC(0): AEMQL
  DIE: GMRD(126.8,                           DR {DIE}: .01;1;2
  UPPERCASE MENU TEXT: INTAKE ITEMS
```

NAME: GMRY IV CARE
  MENU TEXT: Start/Add/DC IV and Maintenance
  TYPE: run routine   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O   E ACTION PRESENT: YES
 DESCRIPTION: This option contains seven protocols associated with
 intravenous therapy:
    1. Start IV - Starts a new IV line or a heparin/saline lock/port.
    2. Solution: Replace/DC/Convert/Finish Solution - DC's the current
       solution, then replaces a new solution to the selected IV line or
       converts the IV according to the user's choice.
    3. Replace Same Solution - Replaces the same solution to a selected IV
       line.
    4. DC IV/Lock/Port and Site - Removes the IV/lock/port from a selected
       IV site and documents tubing changes.
    5. Care/Maintenance/Flush - Checks the site condition, and documents
       dressing, tubing changes and flushes.
    6. Add Additional Solution(s) - Adds additional solution(s) to an IV
       line without discontinuing an existing one.
    7. Restart DC'd IV - Restarts an IV which was discontinued due to
       infiltration or other reasons.
    8. Adjust Infusion Rate - Adjusts infusion rate for a selected IV.
    9. Flush - Flushes all IV line(s) for a selected infusion site.
  ENTRY ACTION: I $G(^GMRD(126.95,1,"OFF")) S XQUIT=1
  ROUTINE: EN1^GMRYED0   TIMESTAMP: 55441,47646
  UPPERCASE MENU TEXT: START/ADD/DC IV AND MAINTENANC

NAME: GMRY IV CATH   MENU TEXT: IV Catheter
  TYPE: edit   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O   E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION: This option allows the ADP coordinator to enter types of IV
 catheters into the GMRY IV CATHETER file (#126.74).
  EXIT ACTION: K DIDEL,DLAYGO   ENTRY ACTION: S (DIDEL,DLAYGO)=126.74
  DIC {DIC}: GMRD(126.74,   DIC(0): AEMQL
  DIE: GMRD(126.74,   DR {DIE}: .01;1
  UPPERCASE MENU TEXT: IV CATHETER

NAME: GMRY IV FLOW
  MENU TEXT: Intravenous Infusion Flow Sheet
  TYPE: run routine   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION: This option prints intravenous flow sheets by ward, room or by
 patient.
  ROUTINE: EN1^GMRYFLW0   TIMESTAMP: 55699,43960
  UPPERCASE MENU TEXT: INTRAVENOUS INFUSION FLOW SHEE

NAME: GMRY IV SITE   MENU TEXT: IV Site
  TYPE: edit   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O   E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION: This option allows the ADP coordinator to enter IV sites into
 the GMRY IV SITE file (#126.7). This information is used to track the IV
 insertion site and assist with documentation of the site's status and
 surrounding skin integrity.
  EXIT ACTION: K DIDEL,DLAYGO   ENTRY ACTION: S (DIDEL,DLAYGO)=126.7
  DIC {DIC}: GMRD(126.7,   DIC(0): AEMQL
  DIE: GMRD(126.7,   DR {DIE}: .01
  UPPERCASE MENU TEXT: IV SITE

NAME: GMRY IV SOL   MENU TEXT: IV Solution
  TYPE: edit   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O   E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION: The ADP coordinator can enter IV solutions into the GMRY NUR

IV SOLUTION file (#126.9) through this option. The IV solutions include
 admixtures, hyperals, intralipids, piggybacks and blood/blood products.
  EXIT ACTION: K DIDEL,DLAYGO   ENTRY ACTION: S (DIDEL,DLAYGO)=126.9
  DIC {DIC}: GMRD(126.9,   DIC(0): AEMQL
  DIE: GMRD(126.9,   DR {DIE}: .01;1;2
  UPPERCASE MENU TEXT: IV SOLUTION

NAME: GMRY NURSHIFT
  MENU TEXT: Shift Starting Hour and Other Parameters
  TYPE: edit   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION: The shift starting hours stored in the GMRY NUR SHIFT/OTHER
 file (#126.95) are used to calculate the patient's total intake/output for
 night, day and evening shifts, respectively. The data type for hours can be
 entered "0800", "1600" and "2400".
  DIC {DIC}: GMRD(126.95,   DIC(0): AMEQL
  DIE: GMRD(126.95,   DR {DIE}: 1;2;3
  TIMESTAMP: 55516,49891
  UPPERCASE MENU TEXT: SHIFT STARTING HOUR AND OTHER

NAME: GMRY OUTPUT FILE1   MENU TEXT: Output Type
  TYPE: edit   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O   E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION: This option is provided for the ADP coordinator to configure
 the entries for the GMRY OUTPUT TYPE file (#126.58). URINE, STOOL and
DRAINS, for example, are major output types.
  EXIT ACTION: K DLAYGO   ENTRY ACTION: S DLAYGO=126.58
  DIC {DIC}: GMRD(126.58,   DIC(0): AMEQL
  DIE: GMRD(126.58,   DR {DIE}: .01;1
  UPPERCASE MENU TEXT: OUTPUT TYPE

NAME: GMRY OUTPUT FILE2   MENU TEXT: Output Subtype
  TYPE: edit   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O   E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION: This option allows the ADP coordinator to enter the entries
for the GMRY OUTPUT SUBTYPE file (#126.6) pointed to by the GMRY PATIENT I/O
FILE file (#126). VOID, FOLEY and STRAIGHT CATH, for example, are subtypes of
 URINE.
  EXIT ACTION: K DLAYGO   ENTRY ACTION: S DLAYGO=126.6
  DIC {DIC}: GMRD(126.6,   DIC(0): AEMQL
  DIE: GMRD(126.6,   DR {DIE}: .01;1
  UPPERCASE MENU TEXT: OUTPUT SUBTYPE

NAME: GMRY SITE DESCRP   MENU TEXT: IV Site Description
  TYPE: edit   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O   E ACTION PRESENT: YES
  X ACTION PRESENT: YES
 DESCRIPTION: This option allows the ADP coordinator to enter IV site
 descriptions into the GMRY IV SITE DESCRIPTION file (#126.72). This
 information is used for documenting site maintenance.
  EXIT ACTION: K DLAYGO,DIDEL   ENTRY ACTION: S (DIDEL,DLAYGO)=126.72
  DIC {DIC}: GMRD(126.72,   DIC(0): AEMQL
  DIE: GMRD(126.72,   DR {DIE}: .01;
  UPPERCASE MENU TEXT: IV SITE DESCRIPTION

NAME: GMRYMGR   MENU TEXT: Patient Intake/Output Menu
  TYPE: menu   CREATOR: POSTMASTER
  PACKAGE: GEN. MED. REC. - I/O
 DESCRIPTION: This is the main menu for the Intake and Output(I&O)
 application. It contains options for: (1) tracking patient intake and
output, (2) starting and discontinuing IV lines and fluids, (3) documenting IV
care, and (4) printing various intake and output reports.
ITEM: GMRY EDIT INTAKE   SYNONYM: 1

```
 DISPLAY ORDER: 1
ITEM: GMRY EDIT OUTPUT                         SYNONYM: 2
 DISPLAY ORDER: 2
ITEM: GMRY IV CARE                             SYNONYM: 3
 DISPLAY ORDER: 3
ITEM: GMRY I/O SUM                             SYNONYM: 4
 DISPLAY ORDER: 4
ITEM: GMRY I/O CURRENT                         SYNONYM: 5
 DISPLAY ORDER: 5
ITEM: GMRY I/O 48HRS                           SYNONYM: 6
 DISPLAY ORDER: 6
ITEM: GMRY FILE EDIT                           SYNONYM: 9
 DISPLAY ORDER: 9
ITEM: GMRY IV FLOW                             SYNONYM: 8
 DISPLAY ORDER: 8
ITEM: GMRY I/O SHIFT AND EVENT                 SYNONYM: 7
 DISPLAY ORDER: 7
 TIMESTAMP: 56656,39523           TIMESTAMP OF PRIMARY MENU: 56007,50166
 UPPERCASE MENU TEXT: PATIENT INTAKE/OUTPUT MENU
```

Chapter 5 Cross References

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

```
GMRY PATIENT I/O FILE (126) FILE
--------------------------------------------------------------------------------

PATIENT
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on .01 field
of the file.



INTAKE (126.01) SUB-FILE
--------------------------------------------------------------------------------

INTAKE DATE/TIME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field of the file.  This index sorts the intake measurements by date/time for a
patient.

     NAME: TYP01
     DESCRIPTION: TYP01 MUMPS cross-reference is created to delete an old intake
measurement index ^GMR(126,DA(1),"IN","TYP",9999999-INTAKE DATE/TIME,INTAKE TYPE,DA)
="".

INTAKE TYPE
     NAME: TYP1
     DESCRIPTION: TYP1 MUMPS cross-reference is created to sort intake measurements
by
inverted INTAKE DATE/TIME and INTAKE TYPE.



OUTPUT (126.02) SUB-FILE
--------------------------------------------------------------------------------

OUTPUT DATE/TIME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field of the file.  This index sorts the output measurements by date/time for
a patient.

     NAME: TYP01
     DESCRIPTION: TYP01 MUMPS cross-reference is created to delete an old output
record index ^GMR(126,DA(1),"OUT","TYP",9999999-OUTPUT DATE/TIME,OUTPUT TYPE,DA)
="".

OUTPUT TYPE
     NAME: TYP1
     DESCRIPTION: TYP1 MUMPS cross-reference is created to sort output measurements
by
inverted OUTPUT DATE/TIME and OUTPUT TYPE.
```

Cross References

IV (126.03) SUB-FILE

IV START DATE/TIME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field of the file. This index sorts the intravenous fluids on a patient by
starting date/time.

     NAME: TYP01
     DESCRIPTION: TYP01 MUMPS cross-reference is created to sort the intravenous
fluids on a patient by the inverted IV START DATE/TIME and TYPE OF IV.

     NAME: C
     DESCRIPTION: C MUMPS cross-reference indexes the intravenous solutions on a
patient by the inverted IV START DATE/TIME. The SET statement inserts the
DUZ in the IV STARTED BY field (6).

INFUSION SITE
     NAME: SITE
     DESCRIPTION: SITE MUMPS cross-reference sorts the intravenous fluids on a
patient by INFUSION SITE and inverted IV START DATE/TIME.

TYPE OF IV
     NAME: TYP3
     DESCRIPTION: TYP3 MUMPS cross-reference sorts the intravenous fluids on a
patient by the inverted IV START DATE/TIME and TYPE OF IV.

IV MAINTENANCE (126.04) SUB-FILE

IV SITE
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the IV
SITE field of the IV MAINTENANCE. The records are sorted by the IV's location such
as LEFT HAND, RIGHT HAND and LEFT ARM, etc.

INTAKE ITEM (126.13) SUB-FILE

INTAKE ITEM
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field of the file.

     NAME: VOL
     DESCRIPTION: VOL MUMPS cross-reference is created to sum up the values of
VOLUME
field of the INTAKE ITEM multiple and insert the total in the TOTAL AMOUNT field of
the INTAKE record.

```
IV INTAKE (126.313) SUB-FILE

--------------------------------------------------------------------------------

IV INTAKE DATE/TIME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.

     NAME: C
     DESCRIPTION: This MUMPS index is created to sort the intake records for an IV
solution by inverted IV INTAKE DATE/TIME.  The SET statement inserts DUZ in the
ENTERED BY field (3).




D/T TITER ADJUSTED (126.316) SUB-FILE

--------------------------------------------------------------------------------

D/T TITER ADJUSTED
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.

     NAME: C
     DESCRIPTION: This MUMPS index is created to sort the infusion rate adjustment
record by inverting the date/time stored in the D/T TITER ADJUSTED field..




MAINTENANCE DATE/TIME (126.41) SUB-FILE

--------------------------------------------------------------------------------

MAINTENANCE DATE/TIME
     NAME: B
     DESCRIPTION: This cross-reference is created automatically on the .01 field of
the MAINTENANCE DATE/TIME multiple for each IV SITE.

     NAME: AC
     DESCRIPTION: AC MUMPS cross-reference is created to insert the DUZ of the
person who gives the nursing care in the ENTERED BY field (4) of the maintenance
record.

     NAME: C
     DESCRIPTION: C cross-reference is created to sort the nursing care records for
a
specific IV's location by the inverted date/time the care given.
```

Cross References

```
GMRY INPUT TYPE (126.56) FILE

------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.


ORDER
     NAME: C
     DESCRIPTION: This regular cross-reference is created to index the file by ORDER
and the associated input type NAME.




GMRY OUTPUT TYPE (126.58) FILE

------------------------------------------------------------------------------

OUTPUT TYPE
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.


ORDER
     NAME: C
     DESCRIPTION: This regular cross-reference is created to sort the file by ORDER
and the associated OUTPUT TYPE.




GMRY OUTPUT SUBTYPE (126.6) FILE

------------------------------------------------------------------------------

OUTPUT SUBTYPE
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.


OUTPUT TYPE
     NAME: C
     DESCRIPTION: This regular cross-reference is created to sort the file by OUTPUT
TYPE and the associated OUTPUT SUBTYPE.




GMRY IV SITE (126.7) FILE

------------------------------------------------------------------------------

IV SITE
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.
```

```
GMRY IV SITE DESCRIPTION (126.72) FILE

--------------------------------------------------------------------------------

DESCRIPTION
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.




GMRY IV CATHETER (126.74) FILE

--------------------------------------------------------------------------------

IV CATHETER TYPE/SIZE
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.




PORT (126.741) SUB-FILE

--------------------------------------------------------------------------------

PORT
     NAME: B
     DESCRIPTION: This cross-reference is automatically created on the .01 field of
the PORT multiple.




GMRY IV DC'ED REASON (126.76) FILE

--------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.




GMRY INTAKE ITEMS (126.8) FILE

--------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.

     NAME: BL
     DESCRIPTION: This MUMPS cross-reference is created to index the file by lower
case NAME.
```

```
INPUT TYPE (126.82) SUB-FILE

--------------------------------------------------------------------------------

INPUT TYPE
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.

     NAME: C
     DESCRIPTION: C MUMPS cross-reference is created to index the GMRY INTAKE ITEMS
file by the INPUT TYPE field (2) and the associated intake item NAME (.01).




GMRY NUR IV SOLUTION (126.9) FILE

--------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.


TYPE
     NAME: C
     DESCRIPTION: This regular cross-reference is created to sort the file by TYPE
field and the associated IV solution NAME.




GMRY NUR SHIFT/OTHER (126.95) FILE

--------------------------------------------------------------------------------

NAME
     NAME: B
     DESCRIPTION: This regular cross-reference is automatically created on the .01
field.
```

Chapter 6 Archiving and Purging

It is anticipated that the implementation of this application will be minimal due to the lack of point of care (POC) entry devices at the medical centers. The archiving of data will be addressed in a future version of the software.

Chapter 7 Callable Routines

There are no callable routines in Version 4.0 of the Intake and Output software.

Chapter 8 External Relations

1. The following V*IST*A applications must reside in the system before Intake and Output, Version 4.0 can be installed:

    a. Kernel Version 8.0 or greater,
    b. VA FileMan Version 21 or greater,
    c. PIMS (MAS) Version 5.3 or greater.

2. If the facility intends to utilize the patient IV orders found in the V*IST*A Pharmacy application, then Version 4.5 (or greater) of the Inpatient Medications application must reside in the system.

3. Existing integration agreements between the Intake and Output software and other V*IST*A applications are summarized below.

DBIA's where the Intake and Output package is the subscriber:

```
      1380      NAME: ROOM-BED
  CUSTODIAL PACKAGE: REGISTRATION                  Albany
SUBSCRIBING PACKAGE: INTAKE/OUTPUT                 Chicago
              USAGE: Controlled Subscri APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 405.4                  ROOT: DG(405.4,
        DESCRIPTION:                        TYPE: File
   Nursing, Vitals/Measurements and Intake/Output have permission to access
   the following elements in the Room-Bed (405.4) file.

     ^DG(405.4,0) to test for existence of file.
      "W" cross-reference
      Direct global read of the NAME (.01) field.
     ^DG(405.4,0)
        Direct global reference of this node to check for existence of
        Room-Bed (405.4) file.
     ^DG(405.4,D0,0)
      .01      NAME                 0;1      Direct Global Read
     ^DG(405.4,'W',
        Direct global read on the "W" cross-reference.

     ROUTINE:

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

      1409      NAME: NURS LOCATION
  CUSTODIAL PACKAGE: NURSING SERVICE               Chicago
SUBSCRIBING PACKAGE: INTAKE/OUTPUT                 Chicago
              USAGE: Private             APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 211.4                  ROOT: NURSF(211.4,
        DESCRIPTION:                        TYPE: File
   Intake/Output can access the Nurs Location (211.4) file entry as described
   in this DBIA.
     ^NURSF(211.4,D0,
      .01      NAME                 0;1      Direct Global Read
      1        PATIENT CARE FLAG    1;1      Direct Global Read
        Direct global read of ^NURSF(211.4) is supported to check if the file
        exists.
        Direct global read of the "D" cross-reference of the NURS Location
        (211.4) file is supported.
     ^NURSF(211.4,D0,3,D1,
      .01      MAS WARD             0;1      Direct Global Read
        Direct global read of ^NURSF(211.4,D0,3,D1) to $Order through the
```

```
     multiple is supported.

   ROUTINE:

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

     1410    NAME: NURS POSITION CONTROL
  CUSTODIAL PACKAGE: NURSING SERVICE              Chicago
SUBSCRIBING PACKAGE: INTAKE/OUTPUT               Chicago
            USAGE: Private            APPROVED: APPROVED
           STATUS: Active              EXPIRES:
         DURATION: Till Otherwise Agr  VERSION:
             FILE: 211.8                  ROOT: NURSF(211.8,
      DESCRIPTION:                        TYPE: File
  Intake/Output has permission to access the NURS Position Control (211.8)
  file as indicated in this DBIA.
   ^NURSF(211.8,D0,
    .02     SERVICE CATEGORY     0;2     Direct Global Read
      Also direct global read access of the "D" cross-reference of file
      211.8 is supported.

   ROUTINE:

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

     1411    NAME: NURS PATIENT
  CUSTODIAL PACKAGE: NURSING SERVICE              Chicago
SUBSCRIBING PACKAGE: INTAKE/OUTPUT               Chicago
            USAGE: Private            APPROVED: APPROVED
           STATUS: Active              EXPIRES:
         DURATION: Till Otherwise Agr  VERSION:
             FILE: 214                     ROOT: NURSF(214,
      DESCRIPTION:                        TYPE: File
  Intake/Output can access the NURS Patient (214) file as described in this
  DBIA.
   ^NURSF(214,D0,
     2        NURS LOCATION        0;3     Direct Global Read
      Direct global read of the "AF" and "E" cross-references of the NURS
      Patient (214) file is supported.
      Direct global read of the ^NURSF(214,D0,0) node is also supported.

   ROUTINE:

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

     1957    NAME: File Security Codes
  CUSTODIAL PACKAGE: VA FILEMAN                   San Francisco
SUBSCRIBING PACKAGE: NURSING SERVICE             Chicago
                     GMRY GEN. MED. REC           Chicago
                     GEN. MED. REC. - V           Chicago
                     TEXT GENERATOR               Chicago
            USAGE: Private            APPROVED: APPROVED
           STATUS: Active              EXPIRES:
         DURATION: Till Otherwise Agr  VERSION:
             FILE: 1                       ROOT: DIC
      DESCRIPTION:                        TYPE: File
  The Gen. Med. Rec. - I/O (Intake and Output), Gen. Med. Red. - Vitals
  (Vitals/Measurements), Nursing Service and Text Generator packages have
  permission to set the security nodes (i.e., "DD", "RD", "DEL", "LAYGO",
  and "WR") in FILE 1 for those files within the package's number range.
  For example: S ^DIC(210,0,"DD")="@"

   Package           Number Range
   -------           ------------
   Intake & Output   126-126.95
   Vitals/Measurments 120.5-120.57
   Nursing Service   210-219.7
   Text Generator    124-124.3

  With the next release of each package, the installation process will allow
  the site to change its file security codes to match the codes as they
  appear in the documentation. The site can answer YES to change their file
  security codes to match the package documentation or NO to leave them as
  is.
```

DBIA's where the Intake and Output package is the custodian:

```
     1390     NAME: GMRY PATIENT I/O FILE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE                Chicago
              USAGE: Private           APPROVED: APPROVED
             STATUS: Active            EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126                 ROOT: GMR(126,
        DESCRIPTION:                     TYPE: File
  Nursing has permission to access the GMRY Patient I/O File (126) file
  fields described in this DBIA.
    ^GMR(126,D0,
       Direct global read on "B" cross-reference of GMRY Patient I/O File is
       supported.
       LAYGO is allowed to this file using a ^DIC lookup.
    ^GMR(126,D0,'IVM',D1,
       Direct global reference on the "B" cross-reference of the IV
       Maintenance sub-file is supported.
    ^GMR(126,D0,'IVM',D1,1,D2,
       .01     MAINTENANCE DATE/TIM 0;1     Direct Global Read
       1       SITE DESCRIPTION     0;2     Direct Global Read
       2       TUBING CHANGED       0;3     Direct Global Read
       3       DRESSING CHANGED     0;4     Direct Global Read
       4       ENTERED BY           0;5     Direct Global Read
       5       SITE DC'ED           0;6     Direct Global Read
       Direct global reads of the "B" and "C" cross-references of the
       Maintenance sub-file are also supported.
    ^GMR(126,0)
       Direct global read to test for existence of the file is supported.

    ROUTINE:

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

     1391     NAME: GMRY NUR SHIFT/OTHER
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE                Chicago
                     VITALS/MEASUREMENT             Chicago
              USAGE: Private           APPROVED: APPROVED
             STATUS: Active            EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126.95             ROOT: GMRD(126.95,
        DESCRIPTION:                     TYPE: File
  Nursing and Vitals/Measurements have permission to access the GMRY NUR
  Shift/Other file fields described in this DBIA.
    ^GMRD(126.95,D0,
       1       NIGHT                1;1     Direct Global Read
       2       DAY                  1;2     Direct Global Read
       3       EVENING              1;3     Direct Global Read

    ROUTINE:

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

     1392     NAME: GMRY INPUT TYPE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT             Chicago
              USAGE: Private           APPROVED: APPROVED
             STATUS: Active            EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126.56             ROOT: GMRD(126.56,
        DESCRIPTION:                     TYPE: File
  Vitals/Measurments has permission to access the GMRY Input Type file as
  described in this DBIA.
    ^GMRD(126.56,D0,
       .01     NAME                 0;1     Direct Global Read
       Direct global read of the "C" cross-reference of the GMRY Input Type
       file is also supported.

    ROUTINE:

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

```
      1393     NAME: GMRY OUTPUT TYPE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT            Chicago
              USAGE: Private          APPROVED: APPROVED
             STATUS: Active           EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126.58              ROOT: GMRD(126.58,
        DESCRIPTION:                     TYPE: File
   Vitals/Measurements has permission to access the GMRY Output Type (126.58)
   file as described in this DBIA.
     ^GMRD(126.58,D0,
      .01     OUTPUT TYPE          0;1     Direct Global Read
        Direct global read of the "C" cross-reference of the GMRY Output Type
        file is also supported.

      ROUTINE:

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

      1395     NAME: GMRYED1
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
              USAGE: Private          APPROVED: APPROVED
             STATUS: Active           EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                     ROOT:
        DESCRIPTION:                     TYPE: Routine
   Nursing has permission to access the entry points described in this DBIA
   for the GMRYED1 routine.

      ROUTINE: GMRYED1
    COMPONENT:  INPUT
    VARIABLES:  DFN          Input
                                  Patient IEN.
                GNUROP       Input
                                  Type of Input/Output/IV.
                GMRHLOC      Input
                                  Hospital Location file pointer.
                GMROUT       Both
                                  Switch that is set to 0 and returned if
                                  abnormal user exit.
                     Allows user to enter/edit patient intake.
    COMPONENT:  OUTPUT
    VARIABLES:  DFN          Input
                                  Patient IEN.
                GNUROP       Input
                                  Type of data Input/Output/IV.
                GMRHLOC      Input
                                  Hospital Location (44) pointer.
                GMROUT       Both
                                  Switch to determine if user abnormally
                                  exits.  Passed in with value of 0.
                     Allows user to enter/edit patient Output.

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

      1396     NAME: GMRYRP0
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
              USAGE: Private          APPROVED: APPROVED
             STATUS: Active           EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                     ROOT:
        DESCRIPTION:                     TYPE: Routine
   Nursing has permission to access the following entry points in the GMRYRP0
   routine.

      ROUTINE: GMRYRP0
    COMPONENT:  EN1
    VARIABLES:  GMRNUR       Input
                                  This variable is set to one to indicate
                                  that this routine was called from an
                                  external package.
                     This entry point prints an I/O Summary by Patient (by Shift
```

```
                            & Day(s)).
        COMPONENT:  EN4
        VARIABLES:  GMRNUR      Input
                                        This variable is set to one to indicate
                                        that this routine was called from an
                                        external package.
                      This entry point prints an I/O Summary (Midnight to
                      Present).
        COMPONENT:  EN5
        VARIABLES:  GMRNUR      Input
                                        This variable is set to one to indicate
                                        that this routine was called from an
                                        external package.
                      This entry point prints an I/O Summary (48 hours).
        COMPONENT:  EN2
        VARIABLES:  GMRNUR      Input
                                        This variable is set to one to indicate
                                        that this routine was called from an
                                        external package.
                      This entry point prints the Patient I/O Summary Report for
                      the previous day.
        COMPONENT:  Q
        VARIABLES:      This entry point cleans up variables used by GMRYRP0 calls.

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

          1397     NAME: GMRYED3
     CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
   SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
                 USAGE: Private            APPROVED: APPROVED
                STATUS: Active              EXPIRES:
              DURATION: Till Otherwise Agr  VERSION:
                  FILE:                        ROOT:
           DESCRIPTION:                        TYPE: Routine
    Nursing can access the following entry points described in this DBIA for
    the GMRYED3 routine.

        ROUTINE: GMRYED3
      COMPONENT:  LIST
      VARIABLES:  DFN         Input
                                        Patient IEN.
                  GNUROP      Input
                                        Type of Input/Output/IV.
                  GMRHLOC     Input
                                        Hospital Location file (44) pointer.
                  GMROUT      Both
                                        This variable indicates whether the user
                                        abnormally exited the input process.  It
                                        is passed in with a value of 0.
                      This entry point allows user to start/add/DC IV and
                      maintenance.

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

          1415     NAME: GMRYFLW0
     CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
   SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
                 USAGE: Private            APPROVED: APPROVED
                STATUS: Active              EXPIRES:
              DURATION: Till Otherwise Agr  VERSION:
                  FILE:                        ROOT:
           DESCRIPTION:                        TYPE: Routine
    Nursing has permission to access the following entry point in the GMRYFLW0
    routine.

        ROUTINE: GMRYFLW0
      COMPONENT:  EN1
      VARIABLES:  GMRNUR      Input
                                        This variable is passed in with a value
                                        of 1 to indicate that the report is
                                        requested by the Nursing service.
                      This entry point allows user to print the Intravenous
                      Infusion Flow Sheet for a selected time range.

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

```
     1430     NAME: GMRYRP1
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
                     VITALS/MEASUREMENT           Chicago
             USAGE: Private          APPROVED: APPROVED
            STATUS: Active           EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                    ROOT:
       DESCRIPTION:                    TYPE: Routine
  Nursing has permission to access the NEXT entry point for the GMRYRP1
  routine.  Vitals/Measurements is allowed to use the entry STARTD for the
  GMRYRP1 routine.

    ROUTINE: GMRYRP1
  COMPONENT:  NEXT
  VARIABLES:  GMRFIN       Input
                                  Date/time the current nursing shift ends.
              GLASTDT      Output
                                  Date the day before the date stored in
                                  GMRFIN.
              GDTSTRT      Output
                                  Date the nursing shift starts.
              GNXTDT       Output
                                  Date the day after the date stored in
                                  GDTSTRT.
              GMRNIT       Output
                                  Time the nursing night shift starts.
              GDTFIN       Output
                                  Date the nursing shift ends.
                This entry point is called to initialize variables required
                for the SETSIFT^GMRYRP2 call.
  COMPONENT:  STARTD
  VARIABLES:  DFN          Input
                                  Patient IEN.
              GMRSTRT      Both
                                  Input: Start date of information extract.
                                  Output: Start date_night shift start
                                  hour.
              GMRFIN       Both
                                  Input: End date of information extract.
                                  Output: End date_evening shift end hour.
              GMROUT       Both
                                  Passed in with a value of 0.  Returned a
                                  value of 1 if exited abnormally.
              GRPT         Input
                                  Set to 5 to indicate that the data are
                                  requested the V/M Graphic Reports.
              GMRNIT       Input
                                  Nursing night shift start hour defined in
                                  the GMRY NUR Shift/Other file (126.95).
              GMRDAY       Input
                                  Nursing day shift start hour defined in
                                  the GMRY NUR Shift/Other file (126.95).
              GMREVE       Input
                                  Nursing evening shift start hour defined
                                  in the GMRY NUR Shift/Other file
                                  (126.95).
                This entry is called to set up the start date/time and end
                date/time of information extract according to the nursing
                shift starting hours defined in the GMRY NUR Shift/Other
                file (126.95).

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

     1432     NAME: GMRYUT0
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
             USAGE: Private          APPROVED: APPROVED
            STATUS: Active           EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE:                    ROOT:
       DESCRIPTION:                    TYPE: Routine
  Vitals/Measurements can access the GMTRYUT0 routine as described in this
  DBIA.
```

```
   ROUTINE: GMRYUT0
COMPONENT:  PT
VARIABLES:  DFN           Input
                              Patient IEN.
            GMRAGE        Output
                              Age of patient.
            GMRBED        Output
                              Room-bed for patient.
            GMRSEX        Output
                              Patient sex.
            GMRVADM       Output
                              Patient admission date.
            GMRWARD       Output
                              Pointer to Ward Location (42) file
                              denoting patient's location.
            GMRWARD(1)    Output
                              Free text of patient's location.
         This entry is used to call 1^VADPT to set up VAIN and VADM
         local variables.
```

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

    1433    NAME: GMRYUT2
 CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE              Chicago
           USAGE: Private          APPROVED: APPROVED
          STATUS: Active             EXPIRES:
        DURATION: Till Otherwise Agr  VERSION:
            FILE:                        ROOT:
     DESCRIPTION:                        TYPE: Routine
  Nursing can access the following entry point in the GMRYUT2 routine.
```

```
   ROUTINE: GMRYUT2
COMPONENT:  SELSITE
VARIABLES:  DFN           Input
                              Patient IEN.
            GMRX          Output
                              Local global containing the intravenous
                              infusion site information.
         This entry point is called to extract all current
         intravenous infusion sites and the sites discontinued
         within the last 24 hours for the selected patient.
```

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

    1434    NAME: GMRYUT9
 CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: VITALS/MEASUREMENT           Chicago
           USAGE: Private          APPROVED: APPROVED
          STATUS: Active             EXPIRES:
        DURATION: Till Otherwise Agr  VERSION:
            FILE:                        ROOT:
     DESCRIPTION:                        TYPE: Routine
  Vitals/Measurements can access the GMRYUT9 routine as described in this
  DBIA.
```

```
   ROUTINE: GMRYUT9
COMPONENT:  PATIENT
VARIABLES:  DFN           Input
                              Patient IEN.
            GMRNUR        Input
                              This is set to 1 to indicate return data
                              from Nurs Patient file.
            SSN           Output
                              Patient SSN.
            GMRAGE        Output
                              Patient's age.
            GMRSEX        Output
                              Patient's sex.
            GMRBED        Output
                              Patient's room-bed.
            GMRVADM       Output
                              Patient admission date/time.
            GMRWARD       Output
```

```
                                    Pointer to Ward Location (42) file
                                    denoting patient's location.
                   GMRWARD(1)   Output
                                    Free text version of patient location.
                   This entry point extracts information from Nurs Patient
                   (214) file.


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


        1435    NAME: GMRYRP2
   CUSTODIAL PACKAGE: INTAKE/OUTPUT                    Chicago
 SUBSCRIBING PACKAGE: NURSING SERVICE                  Chicago
                      VITALS/MEASUREMENT               Chicago
               USAGE: Private              APPROVED: APPROVED
              STATUS: Active               EXPIRES:
            DURATION: Till Otherwise Agr   VERSION:
                FILE:                      ROOT:
         DESCRIPTION:                      TYPE: Routine
   Nursing and Vitals/Measurements can access the following entry points in
   the GMRYRP2 routine.

     ROUTINE: GMRYRP2
   COMPONENT:  SAVE
   VARIABLES:  DA(1)        Input
                                    Pointer to the GMRY Patient I/O file
                                    (126).
               II           Input
                                    Passed in with a value of "IN" or "OUT"
                                    subscript of the GMRY Patient I/O file
                                    (126).
               GMRSTRT      Input
                                    Date/time the current nursing shift
                                    starts.
               GMRFIN       Input
                                    Date/time the current nursing shift ends.
               TMP          Output
                                    ^TMP($J,"GMRY") global contains intake
                                    and output information for a selected
                                    patient.
                   This entry call extracts the intake and output information
                   and stores the data in ^TMP($J,"GMRY") for a selected
                   patient.
   COMPONENT:  SAVEIV
   VARIABLES:  DA(1)        Input
                                    Pointer to the Patient I/O file (126).
               GMRSTRT      Input
                                    Date/time the current nursing shift
                                    starts.
               GMRFIN       Input
                                    Date/time the current nursing shift ends.
               TMP          Output
                                    ^TMP($J,"GMRY") global contains the
                                    patient intravenous infusion information.
                   This entry call extracts patient intravenous infusion
                   information and stores the data in ^TMP($J,"GMRY") global.
   COMPONENT:  SETSIFT
   VARIABLES:  GMRINDT      Input
                                    Date/time the I/O data was entered.
               GDTSTRT      Input
                                    Date the nursing shift starts.
               GDTFIN       Input
                                    Date the nursing shift ends.
               GLASTDT      Input
                                    Date the day before the current nursing
                                    shift ends.
               GSHIFT       Output
                                    Value = "SH-1"   night shift,
                                          = "SH-2"   day shift,
                                          = "SH-3"   evening shift.
                   This entry is called to assign the nursing shift (night,
                   day or evening) according to the date/time the I/O data was
                   entered.
   COMPONENT:  GMRYRP2
   VARIABLES:  DFN          Input
                                    Patient IEN.
```

```
                        GMRSTRT        Input
                                        Start date for the information extract.
                        GMRFIN         Input
                                        End date for the information extract.
                     This routine is called by the Vitals/Measurements to
                     extract patient intake and output information entered
                     within a selected date range.
```

<center>********************</center>

```
        1436      NAME: GMRYRP3
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
                     VITALS/MEASUREMENT            Chicago
              USAGE: Private             APPROVED: APPROVED
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                     ROOT:
        DESCRIPTION:                     TYPE: Routine
   Nursing and Vitals/Measurements can access the following entry point in
   the routine GMRYRP3.

      ROUTINE: GMRYRP3
    COMPONENT: REPORT1
    VARIABLES: GRPT          Input
                                        Type of intake/output report.  Set GRPT =
                                        10 for the Nursing End of Shift Report.
                                        Set GRPT = 5 for the V/M Graphic Reports.
               GQ            Input
                                        Passed in with a value of 0, required by
                                        the GMRYRP3 routine.
               GQT           Input
                                        Passed in with a value of 0, required by
                                        the GMRYRP3 routine.
               GMROUT        Both
                                        This variable indicates whether the user
                                        abnormally exited the process.  It is
                                        passed in with a value of 0.
               TMP           Both

                                        ^TMP($J,"GMRY") contains the intake,
                                        output and intravenous infusion data for
                                        a patient.  If the data is requested by
                                        the Vitals/Measurements, ^TMP($J,"GMR")
                                        is also used to store the aggregated
                                        information.
               GTOTLI        Output
                                        Intake grand total.
               GTOTLO        Output
                                        Output grand total.
               GN(1)         Output
                                        Number of intake types listed in the GMRY
                                        Input Type file (126.56).
               GN(2)         Output
                                        Number of output types listed in the GMRY
                                        Output Type file (126.58).
               GIN           Output
                                        Intake nursing shift total.
               GOUT          Output
                                        Output nursing shift total.
               GTOTIN        Output
                                        Intake day total.
               GTOTOUT       Output
                                        Output day total.
                     The Nursing End of Shift Report calls this entry point to
                     aggregate the data obtained from the execution of
                     SAVE^GMRYRP2 and ^GMRYRP2.  The V/M Graphic Reports call
                     this entry point to aggregate data obtained from the
                     execution of STARTD^GMRYRP1, PT^GMRYUT0 and ^GMRYRP2.
```

<center>********************</center>

```
        1437      NAME: GMRYSE0
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                 Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
              USAGE: Private             APPROVED: APPROVED
```

```
             STATUS: Active              EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE:                         ROOT:
        DESCRIPTION:                         TYPE: Routine
 Nursing can access the following entry point in the GMRYSE0 routine.

     ROUTINE: GMRYSE0
   COMPONENT:  EN1
   VARIABLES:  GMRNUR        Input
                                   This variable is passed in with a value
                                   of 1 to indicate that the report is
                                   requested by the Nursing Service.
                 This entry point allows user to print the Patient
                 Intake/Output 24 Hours Itemized Shift Report for a time
                 range.

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

      1438     NAME: GMRYSE3
 CUSTODIAL PACKAGE: INTAKE/OUTPUT                Chicago
 SUBSCRIBING PACKAGE: NURSING SERVICE            Chicago
               USAGE: Private          APPROVED: APPROVED
              STATUS: Active           EXPIRES:
            DURATION: Till Otherwise Agr  VERSION:
                FILE:                       ROOT:
         DESCRIPTION:                       TYPE: Routine
 Nursing can access the following entry point in the GMRYSE3 routine.

     ROUTINE: GMRYSE3
   COMPONENT:  FITLINE
   VARIABLES:  GMRLEN        Input
                                   Number of characters for a line of text.
               GTXT(0)       Output
                                   The first n-words of the input text in
                                   the GTXT(1) that will fit in length
                                   GMRLEN.
               GTXT(1)       Both
                                   The rest of the text.
                 This utility breaks a line of text into lines.  The length
                 of the new line is defined by user.

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

      1458     NAME: GMRY IV DC'ED REASON
 CUSTODIAL PACKAGE: INTAKE/OUTPUT                Chicago
 SUBSCRIBING PACKAGE: NURSING SERVICE            Chicago
               USAGE: Private          APPROVED: APPROVED
              STATUS: Active           EXPIRES:
            DURATION: Till Otherwise Agr  VERSION:
                FILE: 126.76               ROOT: GMRD(126.76,
         DESCRIPTION:                       TYPE: File
 Nursing has permission to access the following field in the GMRY IV DC'ed
 Reason (126.76) file.
   ^GMRD(126.76,D0,0)
    .01      NAME                 0;1      Both R/W w/Fileman
                                           Nursing is allowed to LAYGO
                                           entries into the file using
                                           FileMan.

     ROUTINE:

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

      1459     NAME: GMRY OUTPUT SUBTYPE
 CUSTODIAL PACKAGE: INTAKE/OUTPUT                Chicago
 SUBSCRIBING PACKAGE: NURSING SERVICE            Chicago
               USAGE: Private          APPROVED: APPROVED
              STATUS: Active           EXPIRES:
            DURATION: Till Otherwise Agr  VERSION:
                FILE: 126.6                ROOT: GMRD(126.6,
         DESCRIPTION:                       TYPE: File
 Nursing has permission to access the following fields in the GMRY Output
 Subtype (126.6) file.
   ^GMRD(126.6,D0,0)
    .01      OUTPUT SUBTYPE       0;1      Both R/W w/Fileman
```

```
                                               Also Nursing is allowed to
                                               LAYGO entries into the file
                                               using FileMan.
     1        OUTPUT TYPE          0;2         Both R/W w/Fileman

     ROUTINE:

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

     1460     NAME: GMRY INTAKE ITEMS
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
             USAGE: Private          APPROVED: APPROVED
            STATUS: Active           EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 126.8             ROOT: GMRD(126.8,
       DESCRIPTION:                   TYPE: File
   Nursing has permission to access the following fields in the GMRY Intake
   Items (126.8) file.
     ^GMRD(126.8,D0,0)
     .01      NAME                0;1         Both R/W w/Fileman
                                               Also Nursing is allowed to
                                               LAYGO entries into the file
                                               using FileMan.
     1        VOLUME              0;2         Both R/W w/Fileman
     2        INPUT TYPE          1;0         Both R/W w/Fileman
                                               Also Nursing is allowed to
                                               LAYGO into multiple using
                                               FileMan.
     ^GMRD(126.8,D0,1,D1,0)
     .01      INPUT TYPE          0;1         Both R/W w/Fileman

     ROUTINE:

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

     1461     NAME: GMRY IV SITE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
             USAGE: Private          APPROVED: APPROVED
            STATUS: Active           EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 126.7             ROOT: GMRD(126.7,
       DESCRIPTION:                   TYPE: File
   Nursing has permission to access the following field in the GMRY IV Site
   (126.7) file.
     ^GMRD(126.7,D0,0)
     .01      IV SITE             0;1         Both R/W w/Fileman
                                               Also Nursing is allowed to
                                               LAYGO entries into the file
                                               using FileMan.

     ROUTINE:

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

     1462     NAME: GMRY NUR IV SOLUTION
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE               Chicago
             USAGE: Private          APPROVED: APPROVED
            STATUS: Active           EXPIRES:
          DURATION: Till Otherwise Agr  VERSION:
              FILE: 126.9             ROOT: GMRD(126.9,
       DESCRIPTION:                   TYPE: File
   Nursing has permission to access the following fields in the GMRY NUR IV
   Solution (126.9) file.
     ^GMRD(126.9,D0,0)
     .01      NAME                0;1         Both R/W w/Fileman
                                               Also Nursing is allowed to
                                               LAYGO entries into the file
                                               using FileMan.
     1        TYPE                0;2         Both R/W w/Fileman
     2        VOLUME              0;3         Both R/W w/Fileman

     ROUTINE:
```

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

     1463    NAME: GMRY INPUT TYPE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE                Chicago
              USAGE: Private          APPROVED: APPROVED
             STATUS: Active            EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126.56                ROOT: GMRD(126.56,
        DESCRIPTION:                        TYPE: File
  Nursing has permission to access the following fields in the GMRY Input
  Type (126.56) file.
   ^GMRD(126.56,D0,0)
     .01     NAME               0;1       Both R/W w/Fileman
                                           Also Nursing is allowed to
                                           LAYGO entries into the file
                                           using FileMan.
      1      ORDER              0;2       Both R/W w/Fileman

     ROUTINE:

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

     1464    NAME: GMRY IV SITE DESCRIPTION
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE                Chicago
              USAGE: Private          APPROVED: APPROVED
             STATUS: Active            EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126.72                ROOT: GMRD(126.72,
        DESCRIPTION:                        TYPE: File
  Nursing has permission to access the following field in the GMRY IV Site
  Description (126.72) file.
   ^GMRD(126.72,D0,0)
     .01     DESCRIPTION        0;1       Both R/W w/Fileman
                                           Also Nursing is allowed to
                                           LAYGO entries into the file
                                           using FileMan.

     ROUTINE:

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

     1465    NAME: GMRY IV CATHETER
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE                Chicago
              USAGE: Private          APPROVED: APPROVED
             STATUS: Active            EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126.74                ROOT: GMRD(126.74,
        DESCRIPTION:                        TYPE: File
  Nursing has permission to access the following field in the GMRY IV
  Catheter (126.74) file.
   ^GMRD(126.74,D0,0)
     .01      IV CATHETER TYPE/SIZ 0;1     Both R/W w/Fileman
                                           Also Nursing is allowed to
                                           LAYGO entries into the file
                                           using FileMan.

     ROUTINE:

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

     1466    NAME: GMRY OUTPUT TYPE
  CUSTODIAL PACKAGE: INTAKE/OUTPUT                  Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE                Chicago
              USAGE: Private          APPROVED: APPROVED
             STATUS: Active            EXPIRES:
           DURATION: Till Otherwise Agr  VERSION:
               FILE: 126.58                ROOT: GMRD(126.58,
        DESCRIPTION:                        TYPE: File
  Nursing has permission to access the following fields in the GMRY Output
  Type (126.58) file.
   ^GMRD(126.58,D0,0)
```

```
     .01     OUTPUT TYPE           0;1       Both R/W w/Fileman
                                             Also Nursing is allowed to
                                             LAYGO entries into the file
                                             using FileMan.
      1      ORDER                 0;2       Both R/W w/Fileman
```

    ROUTINE:

                        ****

     1964   NAME: GMRYCATH
 CUSTODIAL PACKAGE: GMRY GEN. MED. REC   Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE   Chicago
             USAGE: Private   APPROVED:
            STATUS: EXPIRES:
          DURATION: Till Otherwise Agr VERSION:
       DESCRIPTION: TYPE: Routine
 The Nursing Service package has permission to call the GMRYCATH routine in
 order to display or print its End of Shift report.

    ROUTINE: GMRYCATH
  COMPONENT: FINDCA
  VARIABLES: GSITE   Input
                                    This is an array containing IV infusion
                                    location (e.g., LEFT WRIST). The NURCES2
                                    routine passes the parameter GSITE by
                                    reference. For example:

                                    GSITE=LEFT WRIST
             II   Output
                                    The variable II is a single dimension
                                    array. It is the formal parameter
                                    associated with GSITE. Each subscripted
                                    element contains the value of the IV
                                    CATHETER TYPE/SIZE field from the GMRY
                                    PATIENT I/O FILE (#126) for a patient. It
                                    returns the name of the IV catheter for a
                                    given IV infusion location and patient.
                                    For example:

                                    GSITE("LEFT WRIST")=TRIPLE LUMEN
             DFN   Input
                                    The calling routine must have DFN
                                    defined.
                This entry point finds a catheter for a selected IV site.

                        ****

     1965   NAME: GMRYMNT
 CUSTODIAL PACKAGE: GMRY GEN. MED. REC   Chicago
SUBSCRIBING PACKAGE: NURSING SERVICE   Chicago
             USAGE: Private   APPROVED: APPROVED
            STATUS: Active   EXPIRES:
          DURATION: Till Otherwise Agr VERSION:
       DESCRIPTION: TYPE: Routine
 The Nursing Service package has permission to call the GMRYMNT routine in
 order to display or print its End of Shift report.

    ROUTINE: GMRYMNT
  COMPONENT: SELSITE
  VARIABLES: DFN   Input
                                    The calling routine must have DFN
                                    defined.
             GMRXY   Output
                                    Contains all current and discontinued IV
                                    sites used within the last 24 hours.
                This entry point extracts all current and discontinued IV
                sites used within the last 24 hours.

Chapter 9 Internal Relations

There are no internal relations in the Intake and Output application. Each of the options can be independently invoked.

Chapter 10 Package-wide Variable

No package-wide variables are used in the Intake and Output application.

Chapter 11 On-line Documentation

The Intake and Output software is found in the GMRY namespace (i.e., all routines, options, and file names begin with GMRY). File numbers are in the range of 126 to 126.95 in the ^GMR and ^GMRD globals.

The list of all exported files and their data dictionaries can be produced by using the VA FileMan Data Dictionary Utility option, List File Attributes. File relationships can be diagrammed by using the VA FileMan Data Dictionary Utility option, Map Pointer Relationships.

Menu diagrams may be generated through the Menu Manager option, Menu Diagrams. If detailed documentation is required on the application's options, it can be printed through the Menu Manager option, Print Option File.

The XINDEX routine prints a cross-reference listing of all local and global variable usage as well as other information of invaluable assistance in debugging.

Throughout the application, on-line documentation is also provided at each user prompt. If you are unsure of what is being asked or how to reply during your dialogue with the computer, simply enter one or two question marks (? or ??) for help. The computer will respond with an explanation and then repeat the prompt.

Chapter 12 SAC Exemptions

There are no SAC Exemptions associated with the Intake and Output package.

Chapter 13 Software Product Security

1. Security Management.

No additional security measures are to be applied other than those implemented through Menu Manager and the package routines.

No additional licenses are necessary to run the software.

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

2. Security Features:

a. Mail groups and alerts.

There are no mail groups or alerts associated with this application.

b. Remote systems.

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

c. Archiving/Purging.

The application does not include capabilities for archiving and/or purging.

d. Contingency Planning.

It is the responsibility of the using service to develop a local contingency plan to be used in the event of application problems.

e. Interfacing.

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

f. Electronic signatures.

Electronic signatures are not used by the application.

g. Menus.

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

h. Security Keys.

There are no Security Keys in this application.

i. File Security.

```
                                                DD    RD    WR    DEL   LAY
NUMBER  NAME                      GLOBAL NAME   ACC   ACC   ACC   ACC   ACC
-----------------------------------------------------------------------------

126     GMRY PATIENT I/O FILE     ^GMR(126,     @           @     @     @
126.56  GMRY INPUT TYPE           ^GMRD(126.56, @           @     @     @
126.58  GMRY OUTPUT TYPE          ^GMRD(126.58, @           @     @     @
126.6   GMRY OUTPUT SUBTYPE       ^GMRD(126.6,  @           @     @     @
126.7   GMRY IV SITE              ^GMRD(126.7,  @           @     @     @
126.72  GMRY IV SITE DESCRIPTION  ^GMRD(126.72, @           @     @     @
126.74  GMRY IV CATHETER          ^GMRD(126.74, @           @     @     @
126.76  GMRY IV DC'ED REASON      ^GMRD(126.76, @           @     @     @
126.8   GMRY INTAKE ITEMS         ^GMRD(126.8,  @           @     @     @
126.9   GMRY NUR IV SOLUTION      ^GMRD(126.9,  @           @     @     @
126.95  GMRY NUR SHIFT/OTHER      ^GMRD(126.95, @           @     @     @
```

j. References.

There are no special reference materials for this package.

k. Official Policies.

There are no special official policies for this package.

Glossary

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

Administration Schedule   This is a common abbreviation for a schedule. A schedule is the frequency for which an action is to take place, such as every eight hours (Q8H) or every other day (QOD).

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

Application   A system of computer programs and files that have been specifically developed to meet the requirements of a user or group of users. Examples of V*ISTA* applications are the PIMS and Vitals/Measurements application.

Archive   The process of moving data to some other storage medium, (i.e., disk, CD-Rom and magnetic tape), and deleting the information from active storage in order to free-up disk space on the system.

Audit Trail/Logging Features   The use of automated software procedures to determine if the security controls implemented for protection of computer systems are being circumvented and to identify the potential source of the security breach.

Backup Procedures   The provisions made for the recovery of data files and program libraries and for restart or replacement of ADP equipment after the occurrence of a system failure.

Baud Rate   The rate at which data is being transmitted or received from a computer. The baud rate is equivalent to the number of characters per second times 10.

Block   The unit of storage transferred to and from disk drives, typically 512, 1024, or 2048 bytes (characters).

Boot   The process of starting up the computer.

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

Byte   A unit of computer space usually equivalent to one character.

CIOFO   Chief Information Office Field Office, formerly known as Information Resource Management Field Office, and Information Systems Center.

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

CORE   A collection of VA developed programs (specific to PIMS, Pharmacy Service, and Laboratory Service) which is run at VA Medical Centers.

CPU   Central Processing Unit, the heart of a computer system.

CRT   Cathode Ray Tube, similar to a TV monitor but used in computer systems for viewing data. Also called a Video Display Terminal (VDT).

Cursor   A visual position indicator (e.g., blinking rectangle or an underline) on a CRT that moves along with each character as it is entered from the keyboard.

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

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

Disk   A magnetic storage device used to hold information.

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

Field   A data element in a file. For example, PATIENT is a field in the GMRY Patient I/O File.

File   The M construct in which data is stored for retrieval at a later time. A computer record of related information (e.g., GMRY Patient I/O File, Patient file).

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

Focus Group   Previously referred to as the Expert Panel, or SIUG (Special Interest User Group). A committee which advises programmers about the development of a particular system/package.

Global   An M term used when referring to a file stored on a storage medium, usually a magnetic disk. In the Intake and Output software, for example, intake and output data is stored in one global, and patient data is stored in another global.

GMRV   This signifies the namespace assigned to the Vitals/Measurements application.

GMRY   This signifies the namespace assigned to the Intake and Output application.

Hardware   The physical or mechanical components of a computer system such as CPU, CRT, disk drives, etc.

I&O   Intake and output.

Intake/Output Type   The type denotes a category from where the intake or output is derived, i.e., oral, intravenous, etc.

IRMS   Information Resource Management Service.

IV   Intravenously; by intravenous injection.

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

Kilobyte   More commonly known as Kbyte or "K". A measure of storage capacity equivalent to 1024 characters.

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

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

MailMan   An electronic mail, teleconferencing, and networking system.

Megabyte   A measure of storage capacity; approximately 1 million characters. Abbreviated as Mbyte or Meg.

Memory   A storage area used by the computer to hold information.

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

Menu Manager   A part of the Kernel that allows each site to manage the various options or functions available to individual users.

ML   Milliliters; a unit of volume used in the Intake and Output application.

Modem   An electronic device which converts computer signals to enable transmission through a telephone.

Namespace   A naming convention followed in the VA to identify various applications and to avoid duplication. It is used as a prefix for all routines and globals used by the application. The Intake and Output Package uses GMRY as its namespace.

Operating System   The innermost layer of software that communicates with the hardware. It controls the overall operation of the computer such as assigning places in memory, processing input and output. One of its primary functions is interpreting M computer programs into language the system can understand.

Option   A functionality that is invoked by the user. The information defined in the option is used to drive the menu system. Options are created, associated with others on menus, or given entry/exit actions. For example, the GMRVMGR is the main menu for the Vitals/Measurements application.

Package   Otherwise known as an application. A set of M routines, files, documentation and installation procedures that support a specific function within V*IST*A (e.g., the ADT and Vitals/Measurements applications).

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

PIMS   Patient Information Management System previously known as the MAS Package.

PO   Per orum; refers to an item consumed orally or through the mouth.

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

Port   An outlet in the back of the computer into which terminals can be connected.

Printer   A device for printing (on paper) data which is processed by a computer system.

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

Protocol   A single entry point referencing multiple routine entry points to execute several inter related, required processes which perform specific functions. When multiple protocols are associated with a single procedure (i.e., intravenous lines or IV lines), they are found grouped under a single option.

Qualifier   A word that gives a more detailed description of an item.

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

Response Time   The average amount of time the user must wait between the time the user responded to a question at the terminal and the time the system responds by displaying data and/or the next question.

Restart/Recovery Procedures   The actions necessary to restore a system's data files and computational capability after a system failure or penetration.

<RET>   Carriage return.

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

Risk Analysis   An analysis of system assets and vulnerabilities to establish an expected loss from certain events based on estimated probabilities of the occurrence of such events.

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

Security System   A part of Kernel that controls user access to the various computer applications. When a user signs-on, the security system determines the privileges of the user, assigns security keys, tracks usage, and controls the menus or options the user may access. It operates in conjunction with MenuMan.

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

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

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

Subroutine   A part of a program which performs a single function.

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

Telecommunications   Any transmission, emission, or reception of signs, signals, writing, images, sounds or other information by wire, radio, visual, or any electromagnetic system.

Terminal   A device used to send and receive data from a computer system (i.e., keyboard and CRT, or printer with a keyboard).

UCI   User Class Identifier. The major delimiter of information structure within the operating system.

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

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

VDT   Video Display Terminal. Also called a Cathode Ray Tube (CRT).

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

V*ISTA*   Veterans Health Information Systems and Technology Architecture.