RESOURCE AND PATIENT MANAGEMENT SYSTEM

Generic Interface System

(GIS)

Technical Manual

Version 3.01
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Information Technology Support Center
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Preface

The Generic Interface System (GIS) will generate and file multiple types of HL7 events. It adheres strictly to HL7 Version 2.4 and can generate or file messages from any system that adheres to the GIS HL7 Specification.

This manual contains the technical documentation for the GIS, version 3.01. Included are a system description, routine descriptions, option descriptions, and a variety of other information

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1.0   Introduction

The GIS package (BHL) allows the site to receive and send demographic and PCC data to and from the RPMS system. The data strictly adheres to the GIS HL7 Message Specification. A variety of HL7 events are supported including all that will allow the passing and receiving of data in the VA PATIENT file, the PATIENT file and all supported VISIT and V files. It also supports inbound and outbound queries for immunizations.

All user aspects of the GIS package can be maintained from the Interface Main Menu.

2.0   Implementation and Maintenance

2.1   General Information

The GIS HL7 message package resides in the IN and BHL namespaces. Options, security keys, routines and globals are namespaced.

Menu options allow users to edit the BHL Site Parameters, query for immunizations, manipulate message, segment, and file definitions, as well as controlling background jobs for GIS to handle messages.

2.2   System Requirements

a.   Kernel 8.0 or higher

b.   FileMan 21 or higher

c.   IHS MAS Version 5 (DG/SD) Patch 8

d.   IHS Immunization Package (BI) Version 7

e.   PCC Data Entry Version 2.0 (APCD) Patch 6

f.   XB/ZIB Utilities Version 3.0, Patch 9

g.   IHS Patient Dictionaries (AUPN) Version 99.1 Patch 7

h.   Patient Registration (AG) Version 6 Patch 14

i.   Outpatient Pharmacy (PSO) Version 6 Patch 4

3.0   Routines

Routine Name	Description
BHL3MI	BHL Setup Message and Pass to APCD for 3M Coder
BHLDG1	BHL GIS DG1 Supplement
BHLDG1I	Files the inbound DG1 segment
BHLERR	BHL HL7 message error processor
BHLFO	BHL Get Inbound Filing Order
BHLI	Inbound message driver
BHLIN1	BHL IN1 Supplement
BHLIN1IA	BHL File Inbound IN1 segment continued
BHLIN1I	Files inbound IN1 segment
BHLIN1MR	BHL IN1 Segment Medicare Supplement
BHLIN1PI	BHL IN1 Segment Private Insurance Supplement
BHLIN2I	File inbound IN2 segment
BHLIQUI	BHL HL7 Immunization Query User Interface
BHLMFKI	Process inbound MFK event
BHLMSAI	Process inbound MSA segment for V03 event
BHLMSH	BHL MSH Supplement
BHLMT50	BHL Master Table Update Drug User Interface
BHLNK1	BHL NK1 Supplement
BHLNK1I	File inbound NK1 segment
BHLOBRI	File inbound OBR segment
BHLOBRX	BHL OBR/OBX Supplement
BHLOBX3M	BHL Supplement to OBX segment for 3M
BHLOBXI	File inbound OBX segment
BHLORCI	File inbound ORC segment
BHLORUDI	BHL File inbound ORU message for Dynacare Lab Interface
BHLPD1I	File inbound PD1 segment
BHLPID	BHL PID Supplement
BHLPIDI	File inbound PID segment
BHLPR1I	File inbound PR1 segment
BHLPR1	BHL PR1 Supplement
BHLPRV	BHL Provider Utilities
BHLPV1	BHL PV1 Supplement
BHLPV13M	BHL PV1 Supplement for 3M
BHLPV1I	File inbound PV1 segment
BHLQRD	BHL QRD Supplement
BHLQRF	BHL QRF Supplement
BHLQU	BHL Query Utilities
BHLRDXM	BHL Reindex Message File after KIDS install
BHLRXA	BHL RXA Supplement
BHLRXAI	File inbound RXA segment
BHLRXD	BHL RXD Supplement
BHLRXDI	File inbound RXD segment
BHLSETI	Sets up package for inbound messages
BHLSITE	BHL Edit HL7 Site Parameters
BHLU	BHL Utilities
BHLV	BHL GIS Variable set
BHLV01I	File inbound V01 event
BHLV02I	File inbound V02 event
BHLZ01I	Process inbound Z01 event

Routine Name	Description
BHLZDXI	File inbound ZDX segment
BHLZP1I	File inbound ZP1 segment
BHLZP2I	File inbound ZP2 segment
BHLZP3I	File inbound ZP3 segment
BHLZP4I	File inbound ZP4 segment
BHLZPR	BHL GIS ZPR Supplement
BHLZPRI	File inbound ZPR segment
BHLZRAI	File inbound ZRA segment
BHLZV1	BHL GIS ZV1 Supplement
BHLZV1I	File inbound ZV1 segment

3.1   Callable Routines

^BHLIQUI – generates a V01 immunization query:

^BHLMT50 – triggers a drug file MFN/Z01 update message

4.0   Files

File #	Global	File Name	Description
90076.1	^BHLEM(	BHL HL7 Error Message (GIS)*	Stores the Canned Error messages that can occur on message filing.
90076.2	^BHLERR(	BHL HL7 Error Log (GIS)	Logs HL7 message processing errors.
90076.3	^BHLSITE(	BHL HL7 Parameter (GIS)	Contains BHL Site Parameters

* Data is distributed with this file

Cross References

90076.1   BHL HL7 Error Message (GIS)

   .01   Abbreviation

     90076.1^B

90076.2   BHL HL7 Error Log (GIS)

   .01   Message IEN

     90076.2^B

90076.3   BHL HL7 Parameter (GIS)

   .01   Location

     90076.3^B

5.0   Exported Options

Option	Description
BHL EDIT HL7 PARAMETERS	Allows editing of the site parameters.
BHL DRUG MASTER TABLE UPDATE	Allows triggering of a Master File Notification Update message
BHL IHS GIS USER MENU	IHS User Menu in GIS
BHL IMMUNIZATION QUERY	Allows a user to query another system for immunizations
BHL MASTER TABLE UPDATE MENU	Menu containing Master Table Update options

6.0   Menu Diagram

BHL IHS User Menu (BHL IHS GIS USER MENU)

    MTU   Master Table Update Menu

    QRY   Query for an Immunization

    SIT   Edit HL7 Site Parameters

BHL Master Table Update Menu (BHL MASTER TABLE UPDATE MENU)

    MED   Send a Drug Master Table Update

7.0   Security Keys

Key Name	Description
NH MESSAGE EDIT	Assign to Message Developers
INH SITE MANAGER	Assign to appropriate Site Manager Staff

8.0   Options

PT Purge Transactions [INH TRANSACTION PURGE]

  LOCKED: INH SITE MANAGER

EIT Edit an Interface Transaction [INHO EDIT]

  LOCKED: INH MESSAGE EDIT

MTC Mark Transaction Complete [INH MARK COMPLETE]

  LOCKED: INH MESSAGE EDIT

SPE Site Parameter Entry/Edit [INH SITE PARAMETERS]

  LOCKED: INH SITE MANAGER

IOE Interface OS Edit [INH OS ENTRY EDIT]

  LOCKED: INH SITE MANAGER

IAD Interface Application Display [INH INTERFACE APPL DISPLAY]

  LOCKED: INH SITE MANAGER

PE Purge Errors [INH ERROR PURGE]

  LOCKED: INH SITE MANAGER

PT Purge Transactions [INH TRANSACTION PURGE]

  LOCKED: INH SITE MANAGER

EIT Edit an Interface Transaction [INHO EDIT]

  LOCKED: INH MESSAGE EDIT

MTC Mark Transaction Complete [INH MARK COMPLETE]

  LOCKED: INH MESSAGE DIT

9.0   Archiving and Purging

None

10.0   External Relations

This package calls the following documented entry points:

^APCDALV

^APCDALVR

^APCDVLK

11.0   Internal Relations

All users should be given access to the appropriate options and key, as needed. All of the options in this system stand alone.

12.0   How to Generate On-Line Documentation

The file number range for this package is 90076.1-90076.3. The namespace is BHL. All routines, globals, options, etc. begin with BHL.

This section describes some of the methods by which users can generate BHL system technical documentation. Online technical documentation pertaining to the BHL software, in addition to that which is located in the help prompts and on the help screens throughout the BHL package, can be generated through the use of several Kernel options. These include, but are not limited to, the following:

- x   %INDEX
- x   Menu Management
- x   I   Inquire Option
- x   Print Option File
- x   VA FileMan
- x   Data Dictionary Utilities
- x   List File Attributes

Entering question marks at the "Select ... Option" prompts can also provide users with valuable technical information. For example, a single question mark (?) lists all options that can be accessed from the cur-rent option. Entering two question marks (??) lists all options accessible from the current one, showing the formal name and lock for each. Three question marks (???) displays a brief description for each option in a menu, whereas an option name preceded by a question mark (?OPTION) shows extended help, if available, for that option.

For a more exhaustive option listing and further information about other utilities that supply online technical information, please consult the DHCP Kernel Reference manual.

12.1   %INDEX

This option analyzes the structure of a routine to determine in part if the routine adheres to RPMS Programming Standards. The %INDEX output can include the following components:

- x   Compiled list of efforts and warnings
- x   Routine listing
- x   Local variables
- x   Global variables
- x   Naked globals

- x   Label references

- x   External references

By running %INDEX for a specified set of routines, you are afforded the opportunity to discover any deviations from RPMS Programming Standards that exist in the selected routines and to see how routines interact with one another (i.e., which routines call or are called by other routines).

To run %INDEX for the BHL package, specify the BHL namespace at the Routine(s)?> prompt.

Option name

Menu text

Option description

Type of option

Lock (if any)

In addition, all items on the menu are listed for each menu option. To secure information about patient registration options, specify the BAR namespace.

12.2   Inquire Option

This menu management option provides the following information about a specified option:

- x   Option name

- x   Menu text

- x   Option description

- x   Type of option

- x   Lock (if any)

12.3   Print Option File

This utility generates a listing of options from the Option file (# 19). You can choose to print all of the entries in this file or you can specify a single option or range of options. For a list of BHL options, please refer to the Exported Options section of this manual.

12.4   List File Attributes

This VA FileMan option allows you to generate documentation pertaining to files and file structure. Using the Standard format of this option yields the following data dictionary information for a specified file:

- x   File name and description
- x   Identifiers
- x   Cross-references
- x   Files pointed to by the file specified
- x   Files that point to the file specified
- x   Input, print, and sort templates

In addition, the following applicable data is supplied for each field in the file:

- x   Field name, number, title, and description
- x   Global location
- x   Help prompt
- x   Cross-references
- x   Input transform
- x   Date last edited
- x   Notes

Using the Global Map format of this option generates an output that lists the following information:

- x   All cross-references for the file selected
- x   Global location of each field in the file
- x   Input, print, and sort templates

For a comprehensive listing of the BHL package files, please refer to the Files section of this manual.

13.0   SAC Requirements / Exemptions

The following is a list of SAC exemptions:

"BHL" "DW" "IN" "IS" "UT" "XU" "ZI" "ZT"

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```
2.1.4 Unsupported FM 21 Entry Point

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

   Routine               is invoked by
   ^DICN                 INHBLD,INHD,INHPSA,INHSYS05,INHT,INHUTC3,INHVAM,INHVAX
                         INTSUT3
   EN^DICN               INHF,INHUTC1
   NEW^DICN              INHF,INHUTC1
   ^DICOMP               INHMGD3,INHSGZ21,INHSGZ22,INHSZ21,INHSZ5    EN^DICOMP
INHDIA3
   ^DICOMPW              INHDIA3
   Q^DIE2                INHUT2
   MUMPS^DIED            INHUT5
   DD^DIK                INHPCO2
   DIXALL^DIK            INHPCO2
   IX2^DIK               INHUTC11
   IXALL^DIK             INHPCO2
   CNT^DIK1              INHPCO2
   ^DIL                  INHDIPZ    A^DIL                 INHDIPZ
   UNSTACK^DIL           INHDIPZ
   T^DIL2                INHDIPZ
   N^DIP1                INHDWPR
   INIT^DIP5             INHDIPZ
   PX^DIPZ1              INHDIPZ
   GUY^DIQ               INHDWPR
   DIA3^DIQQQ            INHDIA3
   T^DIWW                INHU1

2.2.8  Vendor Specific Subroutines

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

         Possible use of Vendor Specific Subroutine.
         +93^INHPOST :   S ^INTHOS(1,3)="D ^%ET"
         +22^ZTFNTM :    S XNOD=$G(XNOD) Q:'$L(XNOD) $$ACTIVE^%ACTJOB(XJB)
         +25^ZTFNTM :    Q:XCURNOD=XNOD $$ACTIVE^%ACTJOB(XJB)
         +60^ZTFNTM :    S ^%ZTSCH("ACTIVE",XJB,0)=$$ACTIVE^%ACTJOB(XJB)
         +78^ZTFNTM :    Q '$$TERMINAL^%HOSTCMD("cd "_X_">nul")
         +116^ZTFNTM :   S:$L(NAME) X=$$JOBWAIT^%HOSTCMD("delete "_NAME)  ; Delete
file
         +152^ZTFNTM :   Q:'$G(X) "" D:X>4 HIGH^%HL D:X<5 LOW^%HL

2.2.10  Naked Global References

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.
```

```
            +14^INHDWPR :    S Y=$P(^(0),U,2),DI=DIC,DPP(1)=+Y_"^^^@"
,DK=+Y,Q="""",C=",",L=0
            +19^INHOU :    S %D=^(0) I $E(%D,$L(%D)-3,$L(%D))="|CR|" S
%D=$E(%D,1,$L(%D)-4) G GQ
            +34^INHOU :    S LINE=^(0) I $E(LINE,$L(LINE)-3,$L(LINE))="|CR|" S
LINE=$E(LINE,1,$L(LINE)-4) G GQ2
            +17^INHSGZ22 :    S ^(3)="L(%X) ;Place line in WP field",^(4)=" S
INAUDWP=INAUDWP+1,^INVQA(UIF,1,INAUDWP,0)=%X_""|CR|"" Q"
            +203^INHSYSUT :    E  S Y=$$UP(^("UP"))
            +229^INHSYSUT :    Q $P(^(0),U,2)["W"
            +52^INHULOG :    N A S A=+$P($G(^(200)),U,10) Q:A>0 A
            +100^INHUTC1 :    Q "S %=^(0) I "_INSTR
            +54^INHUTSRD :    W " ",$P("(No)^(Yes)",U,X) Q X-1
            +21^INHVTMT :    S INDSTR=+$P(^INTHPC(INBPN,0),U,7),INXDST=$G(^(8))
            +56^UTSRD :    W " ",$P("(No)^(Yes)",U,X) Q X-1
```

2.2.12.1 Z first letter of namespace routines, export prohibited

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

            ZINETNTM should not be included in the package.
            ZTFDTNTM should not be included in the package.
            ZTFENTM should not be included in the package.
            ZTFNTM should not be included in the package.
            ZTOS should not be included in the package.

2.2.12.2 Creation of Local Routines

Exception request: All BHL files are named for valid HL7 Segments. Z segments are
a part of HL7, therefore I would like to include the following BHLZ routines in the
package.

```
BHLZ01I    BHLZDXI    BHLZP1I    BHLZP2I    BHLZP3I    BHLZP4I
BHLZPR     BHLZPRI    BHLZRAI    BHLZV1     BHLZV1I
```

2.3.1.4 SET OF DUZ ARRAY VARIABLES

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
            SUSPECT unconditional SET of DUZ or DUZ array.
            +54^INHE :    N DIK,X,Y,I,%,DIC,DLAYGO S X=+$G(DUZ) N DUZ S
DUZ=X,DUZ(0)="@" K DO
            +113^INHOTM :    .N INDUZ M INDUZ=DUZ N DUZ S DUZ("AG")=$G(INDUZ("AG"))
            +12^INHSGZ :    N INDUZ M INDUZ=DUZ N DUZ S
DUZ=.5,DUZ(0)="@",DUZ("AG")=$G(INDUZ("AG"))
            +13^INHSZ :    N INDUZ M INDUZ=DUZ N DUZ S
DUZ(0)="@",DUZ("AG")=$G(INDUZ("AG"))
            +34^INHU :    N DIC,DO,DINUM,DA,Y,DIE,DR,DUZ S DUZ=.5,DUZ(0)="@"
            +35^INHULOG :    K DUZ,XMDUZ S DUZ=NEWDUZ,DUZ(0)=$P(X,U,4)
            +82^INHUTIL :    I '$G(DUZ) S DIC="^DIC(3,",DIC(0)="QAEM" D ^DIC Q:Y<0  S
DUZ=+Y
            +127^INHVCRV :    S DUZ=+$G(DUZ) N A S A=$G(^ZUTL("XQ",$J,0)) I
A,$D(^XUSEC(0,A,0)) L +^XUSEC(0,A,0):1 I  D SETDT^UTDT S
%=$P($H,",",2),$P(^XUSEC(0,A,0),U,4)=DT_(%\60#60/100+(%\3600)+(%#60/10000)/100) L -
^XUSEC(0,A,0)
            +27^INTSTF :    S DUZ=.5,DUZ(0)="@"
                UTIL :    ASKDUZ I '$G(DUZ) K DUZ S DIC(0)="QAEM",DIC="^DIC(3,", Y=-1
I $O(^DIC(3,0)) D ^DIC G:($E(X)'[U&(Y<0)) ASKDUZ S:Y>0 DUZ=+Y
```

```
2.3.1.5.2  SET, KILL or NEW of Variable DT

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

         SUSPECT unconditional SET, KILL or NEW of Variable DT .
         +51^INHMG2 :   ..S DT=$P(LEN,U,2) S INFD(ID1,"SQ","DT")=$P($G
(^INTHL7FT(DT,0)),U,2)
         +44^INHSYS :   D VAR^DWUTL,^%ZIST I '($D(DT)#2) N DT S DT=$$DT^%ZTFDT()
;CMS SCOPES DT
         +111^INHSYS :   S INASK=+$G(INASK),INREPRT=1 I '($D(DT)#2) N DT S
DT=$$DT^%ZTFDT() ;CMS SCOPES DT
         +17^INHSZ :   S DT=$$DT^UTDT
         +34^INHUTDT :   S DT=$$DT Q
         +15^INHVMTR :   N DT,INENDTM,ER,I,INDSTR,INIP,INQP,INQT,INUIF,
LCT,LINE,INOK,SYSTEM,X,XXDFN,XXDTRDA,INFILOPN,INRUN,WAIT,INPNAME,INCEIS,XXNO
         +96^UTDT :   D ^XQDATE S DT=$P(%,".")
         +111^ZTFDTNTM :   I DT?1.N1","1.N!($L(DT)<7) S DT=$$CDATH2F(DT) ;Convert
DT to FileMan format

2.3.1.5.3  SET DTIME.

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

         SUSPECT unconditional SET of DTIME.
         +72^INHSZ1 :   S A=A_"D SETDT^UTDT S:'$G(DUZ)
DUZ=.5,DUZ(0)=""@"",DUZ(""AG"")=""^1"",DTIME=1 S
(LCT,GERR)=0,INMODE="""_MODE_""",INVS=$P(^INRHSITE(1,0),U,12),INV=$S(INVS<2:""INV"",
1:""^UTILITY(""""INV"""",$J)""),(MULT,INSTERR)=0" D L
         +36^INHULOG :   S DTIME=$$DTIME(DUZ) Q:'$L(DTIME) "2^Incomplete User
record"
         +161^INHUT7 :   S U="^",DUZ=.5,DUZ(0)="@",IO="",DTIME=1

2.3.2.3  KILL of unsubscripted global

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

         +67^INHPCO1 :   K ^INRHS S ^INRHS(0)="INTERFACE SCRIPT^4006"

2.3.2.4  % Global Nodes

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

         SET or KILL of %-Global Node.
         +17^INHR :   K:$D(ZTSK) ^%ZTSK(ZTSK)
         +33^INHR :   K:$D(ZTSK) ^%ZTSK(ZTSK)
         +54^INHR :   K:$D(ZTSK) ^%ZTSK(ZTSK)
         +60^ZTFNTM :   S ^%ZTSCH("ACTIVE",XJB,0)=$$ACTIVE^%ACTJOB(XJB)
         +64^ZTFNTM :   S ^%ZTSCH("ACTIVE",XJB,0)=0

2.3.2.5  Use of ^UTILITY

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.
```

```
           Possible SET of ^UTILITY( global.
           +72^INHDIA :    S DR(DIAR,DI)=DR(DIAR,DI)_Y_";",DRS=DRS+1,DIAP=DIAP+1 I
$D(DIAB),Y'="Q" S ^UTILITY($J,DIAP#1000,DIAR-1,DI,DIAP\1000)=DIAB
           +30^INHE1 :    S ^UTILITY($J,1)=$S($E(IOST)="C":"D TOP^INHE1",1:"W @IOF D
HEAD^INHE1"),I(0)="^INTHER(",J(0)=4003
           +44^INHMGD2 :   ...S
^UTILITY("INHMGD",$J,"E",INMSG,INSEG,INERN)=+FILE(FLVL)_U_"Multiple "_INX_" does not
exist"
           +49^INHMGD2 :   ..S
^UTILITY("INHMGD",$J,"E",INMSG,INERN)=+FILE(FLVL)_U_INX
           +81^INHMGD3 :   .S
^UTILITY("INHMGD",$J,"E",INMSG,INSEG,INFLDC)=+FILE(FLVL)_U_"***NO DATA TYPE***"
           +93^INHMGD3 :   .S
^UTILITY("INHMGD",$J,"E",INMSG,INSEG,INFLDC)=+FILE(FLVL)_U_INOLDX_"  Unable to
resolve or missing from Data Dictionary."
           +123^INHMGD3 :    .S
^UTILITY("INHMGD",$J,"E",INMSG,INSEG,INFLDC)=+FILE(FLVL)_U_"FILE# MISSING***"
           +36^INHMGD6 :    ..I $L(INAS) S ^UTILITY("INHMGD",$J,"F10",INF)=INAS
           +41^INHMGD6 :    .S ^UTILITY("INHMGD",$J,"F",INF)=INDL
           +84^INHMGD6 :    ...S
^UTILITY("INHMGD",$J,"E",INM,+INSEG(1),INERN)=FILE(FLVL)_U_"Msg# "_INM_" has
multiple segments defined for Sequence# "_$P(INSEG(1),U,2)
           +32^INHMGD7 :    ...S
^UTILITY("INHMGD",$J,"E",INM,INSEG,INERN)=+FILE(FLVL)_U_"Multiple "_INX_" does not
exist"
           +39^INHMGD7 :    ..S
^UTILITY("INHMGD",$J,"E",INM,INSEG,INERN)=FILE(FLVL)_U_INX
           +57^INHMGD7 :    ...S
^UTILITY("INHMGD",$J,"E",INM,INSEG,INFL)=FILE(FLVL)_U_INFC_"  Unable to resolve or
missing from Data Dictionary."
           +62^INHMGD7 :    ..I INFLD,INFIL S
^UTILITY("INHMGD",$J,"A",INFIL,INFLD,INFL,INSEG,INM)="" Q
           +64^INHMGD7 :    ..S
^UTILITY("INHMGD",$J,"E",INM,INSEG,INFL)=FILE(FLVL)_U_"Missing "_INFLD_" or "_INFIL
           +76^INHMGD7 :    .S
^UTILITY("INHMGD",$J,"E",INM,INSEG,INERN)=FILE(0)_U_"FLVL at -1"
           +54^INHMSR :    S ^UTILITY($J,"INHSR",4001)=1
           +55^INHMSR :    S ^UTILITY($J,"INHSR",4001,.12)=""
           +56^INHMSR :    S ^UTILITY($J,"INHSR",4001,.01)=""
           +57^INHMSR :    S ^UTILITY($J,"INHSR",4001,.02)=""
           +58^INHMSR :    S ^UTILITY($J,"INHSR",4001,.1)=""
           +59^INHMSR :    S ^UTILITY($J,"INHSR",4001,.14)=""
           +60^INHMSR :    S ^UTILITY($J,"INHSR",4001,.11)=""
           +61^INHMSR :    S ^UTILITY($J,"INHSR",4001,.16)=""
           +62^INHMSR :    S ^UTILITY($J,"INHSR",4001,.08)=""
           +63^INHMSR :    S ^UTILITY($J,"INHSR",4001,.03)=""
           +64^INHMSR :    S ^UTILITY($J,"INHSR",4001,5)=""
           +69^INHMSR :    S ^UTILITY($J,"INHSR",4003)=1
           +70^INHMSR :    S ^UTILITY($J,"INHSR",4003,.11)=""
           +71^INHMSR :    S ^UTILITY($J,"INHSR",4003,.04)=""
           +72^INHMSR :    S ^UTILITY($J,"INHSR",4003,.09)=""
           +73^INHMSR :    S ^UTILITY($J,"INHSR",4003,.1)=""
           +74^INHMSR :    S ^UTILITY($J,"INHSR",4003,.05)=""
           +75^INHMSR :    S ^UTILITY($J,"INHSR",4003,.06)=""
           +76^INHMSR :    S ^UTILITY($J,"INHSR",4003,.01)=""
           +77^INHMSR :    S ^UTILITY($J,"INHSR",4003,.02)=""
           +88^INHPCO :    S ^UTILITY("INSAVE","GIS
PREP","REMEMBER")=INHPREP_U_$$NOW^%ZTFDT
           +53^INHPSAR :    .S ^UTILITY("INHPSAR",$J,INCH)=""
           +83^INHPSAR :    .D CRE(INCH,INBS),DEL(INCH) S
^UTILITY("INHPSAR",$J,INCH)=""
```

```
        +81^INHRTH :   .  S
^UTILITY($J,MS,DES,STAT,INC)=$G(^UTILITY($J,MS,DES,STAT,INC))+1
        +98^INHRTH :   .S
^UTILITY($J,DAY,DES,STAT,INT)=$G(^UTILITY($J,DAY,DES,STAT,INT))+1
        +108^INHRTH :   ..F III=1:1:$L(ST) F IN=INC,INT S
^UTILITY($J,X,DES,$E(ST,III),IN)=0
        +169^INHRTH :   ....S ^UTILITY($J,DAY,I)=$G(^UTILITY($J,DAY,I))+X
        +172^INHRTH :   ....S
^UTILITY($J,"B",DAY,DDE,I)=$G(^UTILITY($J,"B",DAY,DDE,I))+X
        +63^INHRTZ :   .  S ^UTILITY($J,MSGDTTM,C)=$G(^UTILITY($J,MSGDTTM,C))+1
S:^(C)>DV DV=^(C)
        +65^INHRTZ :   .  I DET S
^UTILITY($J,MSGDTTM,DES,STAT,C)=$G(^UTILITY($J,MSGDTTM,DES,STAT,C))+1 S:^(C)>DV
DV=^(C)
        +79^INHRTZ :   .S ^UTILITY($J,DTTM,T)=$G(^UTILITY($J,DTTM,T))+1 S:^(T)>DV
DV=^(T)
        +82^INHRTZ :   .S
^UTILITY($J,DTTM,DES,STAT,T)=$G(^UTILITY($J,DTTM,DES,STAT,T))+1 S:^(T)>DV DV=^(T)
        +44^INHSGZ2 :   I '$D(LSR) S
^UTILITY("INS",$J,700)="LOOKUP:|CR|",^(800)="STORE:|CR|" S:$P(MESS(0),U,7)]""
^(702)="PARAM "_$S($P(MESS(0),U,7)="O":"N",1:$P(MESS(0),U,7))_|CR|" D
        +48^INHSGZ2 :   F I=499,599,699,799,9999 S ^UTILITY("INS",$J,I)="|CR|"
        +49^INHSGZ2 :   S ^UTILITY("INS",$J,10000)="END:|CR|" I INAUDIT S
^UTILITY("INS",$J,9999.999)="^I INAUDIT D FINISH^"_ARNAME_"|CR|" D FILE^INHSGZ22
        +95^INHSGZ2 :   . N I S I=0 F  S I=$O(MULTL(I)) Q:'I  S
^UTILITY("INDIA",$J,+MULTL(I))="S:$G(DIPA("""_$P(MULTL(I),U,2)_""")))=""""
Y="""_$P(MULTL(I),U,3)_""""_$S($P(MULTL(I),U,3)="":",INEXIT=1",1:"")
        +32^INHSGZ21 :   .. S ^UTILITY("INDIA",$J,.01)=MULTF_"///^S
X=$E(DIPA("""_SVAR_"""),1,_ML_")"
        +14^INHSGZ22 :   S
^UTILITY("INAUD",$J,ARNUM,1)=ARNAME_$S(ARNUM>1:$C(63+ARNUM),1:"")_" ;Audit routine
for message '"_$P(MESS(0),U)_"' compiled "_Y
        +15^INHSGZ22 :   S ^UTILITY("INAUD",$J,ARNUM,2)=" ;Part "_ARNUM
        +22^INHSGZ22 :   . S ^UTILITY("INAUD",$J,ARNUM,ARLINE+1)=" G
EN^"_ARNAME_$C(64+ARNUM) D NEWROU
        +26^INHSYS01 :   ..I INREPRT D RPRT1^INHSYSUT(%LEVEL,%FILE,ND) S
^UTILITY("SVD",$J,ND)=""
        +136^INHSYS04 :   S ^UTILITY($J,0,%LC)=$G(%X)
        +19^INHSYS11 :   S ^UTILITY("INHSYS_FILERR",$J,+$G(INFILE),INROOT)=""
        +21^INHSYS11 :   .S ^UTILITY("INHSYS_FILERR",$J,+$G(INFILE),
INROOT,"FLD",+$G(INIEN),+$G(INFLD))=INDAT
        +24^INHSYS11 :   .S
^UTILITY("INHSYS_FILERR",$J,+$G(INFILE),INROOT,"FILE",INDAT)=""
        +75^INHSYS11 :   S ^UTILITY("INHSYS_SUMERR",$J)=INCNT
        +76^INHSYS11 :   S ^UTILITY("INHSYS_SUMERR",$J,INCNT)=INERRMSG
        +154^INHSYSE :   D ORDER^INHUT3("^
","%RTN",RTN,"$E(%RTN,1,$L(RTN))'=RTN","S ^UTILITY($J,%RTN)=""""")
        +61^INHSZ :   . E  S ^UTILITY("IN",$J,RN,L)=X_" ;Compiled from script
'"_$P(^INRHS(SCR,0),U)_"' on "_DATE,CS=CS+$L(^UTILITY("IN",$J,RN,L))+2
        +74^INHSZ :   . S ^UTILITY("IN",$J,RN)=L,RN=RN+1
        +110^INHUT11 :   S
^UTILITY("INH",$J,1)=$E(STR,1,20)_INL_$E(STR,25,$L(STR))
        +13^INHUTIL :   S ^UTILITY("UTSOC",$J,0)="CHOICE^1N^"_I_"^"_I S:$G(P2)=""
P2=P21
        +67^INHVEXP :   I '$L(INFUNCN) S ^UTILITY($J,"MF",INFUNC)="Map function
"_INFUNC_" not defined and contains the following entries:" Q
        +68^INHVEXP :   S ^UTILITY($J,"MF",INFUNC)="Map function "_INFUNC_" -
"_INFUNCN_$S(+INDIC:" (file)",1:" (non-file)")
        +71^INHVEXP :   I '$L(INGL) S ^UTILITY($J,"MF",INFUNC,0)="File #"_INDIC_"
does not have a ""GL"" reference in ^DIC"
        +85^INHVEXP :   I '($D(^INVD(4090.1,INDA,0))#2) S
^UTILITY($J,"MF",INFUNC,INRECID,INDA,0)="Record does not exist in file 4090.1" Q
```

```
        +88^INHVEXP :    I '$L(INFUNCN) S
^UTILITY($J,"MF",INFUNC,INRECID,INDA,0)="Exists under undefined map function
"_INFUNC
        +93^INHVEXP :    .S ^UTILITY($J,"MF",INFUNC,INRECID,INDA,1)="Map function
no. "_X_"-"_N_" does not match x-ref map no. "_INFUNC_"-"_INFUNCN
        +96^INHVEXP :    I +INDIC,'$L(INDE) S INDE=$G(@(INGL_(+INRECID)_",0)")) I
$L(INDE) S ^UTILITY($J,"MF",INFUNC,INRECID,INDA,2)=INSYS_" Record ID """_INRECID_"""
is not fully numeric but info was found under """_(+INRECID)_""""
        +99^INHVEXP :    S X=$G(^INVD(4090.1,INDA,$S(INSYS="SC":1,1:10))) I
X'=INRECID S ^UTILITY($J,"MF",INFUNC,INRECID,INDA,3)="Data element record id "_X_"
does not match with x-ref id "_INRECID
        +103^INHVEXP :    I +INDIC,X'=Y S
^UTILITY($J,"MF",INFUNC,INRECID,INDA,4)="Data element name "_X_" does not match with
file entry "_Y
        +106^INHVEXP :    S
^UTILITY($J,"EX",INFUNC,INRECID,INDA)=+$G(^INVD(4090.1,INDA,$S(INSYS="SC":3,1:12)))
        +112^INHVEXP :    S X=0 F  S X=$O(@(INGL_X_")")) Q:'+X  I
'$D(^UTILITY($J,"LFX",INFUNC,X)) S ^UTILITY($J,"LF",INFUNC,X)="Data element "_X_" -
"_$P($G(@(INGL_X_",0)")),"^",1)_" does not have data pointing to it"
        +63^INTENV1 :    .. S ^UTILITY($J,"ERR",INCONT)=""
        +210^INTSTRT :    ..S
^UTILITY("DIS",$J,INCNT)=$E(INTMP,1,44)_$P($G(^INRHD(+$P(INODE0,U,2),0)),U)
        +211^INTSTRT :    ..S ^UTILITY("DIS",$J,INCNT,0)=""
        +212^INTSTRT :    ..S ^UTILITY("DIS",$J,INCNT,"IEN")=IND
        +214^INTSTRT :    .S ^UTILITY("DIS",$J,1)="No messages selected for this
criteria yet"
        +215^INTSTRT :    .S ^UTILITY("DIS",$J,1,0)=""
        +118^INTSUT1 :    .S ^UTILITY("DIS",$J,J)=MS
        +120^INTSUT1 :    ..S ^UTILITY("DIS",$J,J,0)=""
        +121^INTSUT1 :    ..S ^UTILITY("DIS",$J,J,"IEN")=INUIF
        +130^INTSUT1 :    .S ^UTILITY("DIS",$J,J)=MS
        +192^INTSUT2 :    .S ^UTILITY("INTHU",DUZ,$J,INP,INARY("F"))=INARY("F")
        +196^INTSUT2 :    .S ^UTILITY("INTHU",DUZ,$J,INP,INARY("L"))=INARY("L")
        +72^INTSUT3 :    ..S ^UTILITY("DIS",$J)=INL
        +97^INTSUT3 :    ..S ^UTILITY("INTHU",$J)=INL
        +13^UTIL :    S ^UTILITY("UTSOC",$J,0)="CHOICE^1N^"_I_"^"_I S:$G(P2)=""
P2=P21
```

2.3.4.2   Access to SSVN's restricted to Kernel.

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
   ROUTEST+^ZTFNTM   :    Q:'$L($G(X)) 0 Q ''$D(^$R(X))
```

2.4.3.1 CLOSE command, DIRECT use is prohibited

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
        +76^INHVCRA1 :    I X[".DAT",$L($$OPENSEQ^%ZTFS1(X,"W")) C X Q
        +20^ZINETNTM :    C 56 O 56::5
```

2.4.4.1   HALT command, DIRECT use is prohibited.

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
HALT+1^INHB1
    K ^INRHB("RUN",INBPN) H
```

```
HALT+6 ^INHFTDVX
    H
HALT+6^INHFTM
    H
HALT+3^INHFTM1
    H
HALT+6^INHFTMSM
        H
HALT+6^INHFTNTM
    H
HALT+6^INHOTDVX
    H
HALT+6^INHOTM
    H
HALT+3^INHOTM1
    H
HALT+6^INHOTMSM
    H
HALT+6^INHOTNTM
        H
HALT+3^INHVCRL
    H
HALT+8^INHVCRLD
    H


2.4.5.1      DIRECT use of the JOB command is prohibited.

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

ACTIVE+17^ZTFNTM
    J ACTIVJ^%ZTF(XJB,XUCI,XVOL,XNOD)

2.4.6.2  KILL, exclusive use is prohibited

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

        +8^INHOM :   K (UIF,XUAUDIT,XUTIMP,XUTIMT,XUTIMH,INBPN,INHSRVR)
        +16^INHOS :   K (INBPN,INHSRVR,INPNAME,XUAUDIT,UIF,INDEV,
XUTIMP,XUTIMT,XUTIMH) S INDEV=$G(INDEV)
        +11^INHOT :   K (INBPN,INHSRVR,INPNAME,XUAUDIT,XUTIMP,XUTIMT,
XUTIMH,UIF,MODE,INDEV) S INDEV=$G(INDEV)

2.4.7.2  Timeouts on Locks.

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

        SUSPECT LOCK w/o timeout, or not +/-.
        +22^INHBLD :    .S (INREQIEN,DA)=+Y L +^INTHU(DA) S ^UTIL(DUZ,ZZ)=INREQIEN
K A1 D NAME
        +38^INHD :    S DA=+Y L +^INTHU(DA)
        +94^INHD :    S DA=+Y L +^INTHU(DA)
        +127^INHD :    L +^INTHU("MESSID")
        +23^INHDIA :    L +^DIE K ^DIE(+Y) S ^(+Y,0)=X_U_DT_U_"@"_U_+%F_U_U_
"@",^DIE("F"_+%F,X,+Y)=1 L -^DIE K ^UTILITY($J,"OV")
        +43^INHF :    L +^INLHFTSK(INTSK)
        +122^INHPOST :    . L +^INLHFTSK K ^INLHFTSK(-1)
        +53^INHS :    S G=DIE_DA_","_$S(+N=N:N,1:""""_N_"""")_")" L +@G
```

```
        +22^INHSC :    L +^INRHS(0) F I=1:1 Q:'$D(^INRHS(I))
        +17^INHVAM :   S INZ=+Y L +^INVAM(INZ)
        +7^INHVATR :    L +^INVAS(0) S Z=^INVAS(0),INZ=$P(Z,U,3)+1 F INZ=INZ:1
Q:'$D(^INVAS(INZ))
        +9^INHVATRP :   L +^INVAX(0) S Z=^INVAX(0),INZ=$P(Z,U,3)+1 F INZ=INZ:1
Q:'$D(^INVAX(INZ))
        +131^INTENV1 :   . L +@FILE@(0)
        +36^ZTFNTM :   .L +^%ZTSCH("ACTIVE",XJB,0)
```

2.4.9.1 OPEN, DIRECT use is prohibited

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
        +20^ZINETNTM :   C 56 O 56::5
```

2.4.10.2   All user input READs must have a timeout.

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
RECV+29^ZINETNTM
    S $ZT="QUIT^"_$T(+0)
RECV+41^ZINETNTM
    I 'ZITO R ZIX
```

2.4.11.1 USE, with parameters is prohibited

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
        +130^INHSYS :   I '$$BREAK^%ZTF(0),^DD("OS")=15 U $I:NOCENABLE
        +133^INHSYS :   I $$BREAK^%ZTF(1),^DD("OS")=15 U $I:CENABLE
```

2.9.1.1 FileMan Utility Routine - DIR

Exception request: The following software was provided to IHS by SAIC. After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

```
        Consider use of DIR instead of (suspected) READ.
        +4^INHBLD :   W # R "Number of records: ",NUM:$G(DTIME,300)
        +16^INHSYS07 :   .U 0 R !,"Enter UCI you want to compare element from:
",%THATUCI:DTIME
        +21^INHSYS07 :   .U 0 R !,"Enter VOL you want to compare element from:
",%THATVOL:DTIME
        +199^INHSYS09 :   ...R !!?25,"Press <RETURN> To
Continue",X:$S($D(DTIME):DTIME,1:300)
        +213^INHSYSE :   .F  R %ODD:0 Q:'$T  Q:%ODD="**END**"  D
        +28^INHUSEN8 :   ;A status of R is a reject code which the GIS will file
as an "error".
        +10^INHUT4 :   .W !,PROMPT R %:DTIME E  S %="^" Q
        +10^INHUTC22 :   R !!?25,"Press Return to
continue",X:$S($D(DTIME):DTIME,1:300)
        +10^INHUTC2A :   R !!?25,"Press Return to
continue",X:$S($D(DTIME):DTIME,1:300)
        +61^INHUTSRD :   CR0 R !,"Press <RETURN> to continue:",X#200:DTIME Q
$E($G(X))="^"!'$T
        +66^INHUTSRD :    W *7 R L#100:DTIME Q $E(L)="^"
        +27^INHVA1 :   .R !,"Press <RETURN> to continue ",%:DTIME
```

```
        +89^INHVA2 :   R !!!,"Map function: ",INFUNC:DTIME
        +91^INHVA2 :   R !,"Remote value (ien\name): ",INVAL:DTIME
        +92^INHVA2 :   R !,"Laygo (1 or 0): ",INLAYGO:DTIME
        +130^INTENV :   F  R !,"Enter amount of data to keep: ",INX:$G(DTIME,300)
D  Q:INOUT
        +145^INTENV :   F  R !,"Enter Transaction Type(s) to delete:
",INTT:$G(DTIME,300) D  Q:$D(INOUT)
        +63^UTSRD :   CR0 R !,"Press <RETURN> to continue:",X#200:DTIME Q
$E($G(X))="^"!'$T
        +68^UTSRD :   W *7 R L#100:DTIME Q $E(L)="^"
        +81^ZINETNTM :   ..I ZITO R ZIX:ZITO E  S ZIX(0)="Connection timed
out",ZIX="" Q
        +94^ZINETNTM :   I ZITO R ZIX:ZITO E  S ZIX(0)="Connection timed
out",ZIX="" U:INDI]"" INDI Q
        +188^ZTFNTM :   R %#5:$S($D(DTIME):DTIME,1:300) S:%="" %=$E("YN",'YN+1) E
S DTOUT=1 Q 0


9999 MISCELLANEOUS

1.   Reference to routine that isn't in this UCI.
Routine  Displacement
INHERR   IHSJUMP+28    '^XGABAR' routine that isn't in this UCI.
INHMS    BGNSRCH+72    '^XGABAR' routine that isn't in this UCI.
INHPRE   ERR+2         '^%ZTOS' routine that isn't in this UCI.
INHSYSE  PKG+9         '^INZTTC' routine that isn't in this UCI.
         UPKG+3        '^ZCMSLD1' routine that isn't in this UCI.
INHU1    ERRMSG+1      '^%ZTOS' routine that isn't in this UCI.
INHULOG  LGNLOG+1      '^%ZTOS' routine that isn't in this UCI.
INHUT3   ZISASK+22     '^%ZTFS1' routine that isn't in this UCI.
         OPENIT        '^%ZTFS1' routine that isn't in this UCI.
INHUT4   PRINT+14      '^%ZISPL' routine that isn't in this UCI.
INHUT7   SETENV+9      '^XUDIV' routine that isn't in this UCI.
INHUTC4  IHSJUMP+3     '^XGABAR' routine that isn't in this UCI.
INHVCRA  ERR+4         '^%ZTOS' routine that isn't in this UCI.
INHVCRA1 LOGLOCI+3     '^%ZTFS1' routine that isn't in this UCI.
INHVMTR  CLOSE+1       '^%ZTFS1' routine that isn't in this UCI.
         OPEN+3        '^%ZTFS1' routine that isn't in this UCI.
         ERR+1         '^%ZTOS' routine that isn't in this UCI.
INHVTAPU ERR+1         '^%ZTOS' routine that isn't in this UCI.
INHVTMT5 ERR+4         '^%ZTOS' routine that isn't in this UCI.
INTST    ERR+1         '^%ZTOS' routine that isn't in this UCI.
INTSTRT  START+4       '^%ZIST' routine that isn't in this UCI.
         SEL+16        '^INTS' routine that isn't in this UCI.
INTSTRT1 QUERY+10      '^INTS' routine that isn't in this UCI.
ZTFNTM   PRG+1         '^%SAICOPS' routine that isn't in this UCI.
         PRIINQ+1      '^%SAICOPS' routine that isn't in this UCI.
         RMARGIN+2     '^%SAICOPS' routine that isn't in this UCI.
         ROUSIZE+1     '^%SAICOPS' routine that isn't in this UCI.
         ZH+2          '^%SAICOPS' routine that isn't in this UCI.
         SETPRIN+1     '^%SAICOPS' routine that isn't in this UCI.
         ET+1          '^%ZET' routine that isn't in this UCI.
         READ+1        '^%ZTF1' routine that isn't in this UCI.

2.   Star or pound READ used.

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

INHOA1
    W !,"More..." F X=1:1:INPAR("REPAINT") Q:INTASKED  R *%:1 Q:$T
    OVF+2         S - Star or pound READ used.
```

```
INHOQR2
    W !!,"More..." F X=1:1:INPAR("REPAINT") Q:INTASKED  R *%:1 Q:$T
   OV+6         S - Star or pound READ used.
INHOQT1
    W !!,"More..." F X=1:1:INPAR("REPAINT")  R *%:1 Q:$T
   OV+6         S - Star or pound READ used.
INHOV2
    W !!,"More..." F X=1:1:INPAR("REPAINT") Q:INTASKED  R *%:1 Q:$T
   OV+6         S - Star or pound READ used.
INHUTC5
    ... I $E(IOST)="C" R %#1:0 S:%="^" INQUIT=4
   FIND+68      S - Star or pound READ used.
INHUTS
    R %#1:0 I $L(%)!$T S INEXIT=1
   QUIT+6       S - Star or pound READ used.
INHUTSRD
    R X#DIRL2+('DIRL3):DTIME E  G TO
   I+2          S - Star or pound READ used.
    YNA W:P]"" ! W P_$J("",4-$L(P)) W:DIRF]"" DIRF_"// " R X#3:DTIME Q:'$T "0^1"
   YNA          S - Star or pound READ used.
    FLUSH N X X ^%ZOSF("EOFF") F  R *X:0 Q:X=-1
   FLUSH        S - Star or pound READ used.
    CR0 R !,"Press <RETURN> to continue:",X#200:DTIME Q $E($G(X))="^"!'$T
   CR0          S - Star or pound READ used.
     W *7 R L#100:DTIME Q $E(L)="^"
   MESS1+3      S - Star or pound READ used.
INTST
    S %="" I '$G(INAUTO) R %#1:0
   DEBUG+12     S - Star or pound READ used.
INTSTR
    W "Press any key to start",! R *x:3600
   TEST+8       S - Star or pound READ used.
    .I $G(INSTEP) D IO("Press any key to continue") R *X:3600
   TEST+15      S - Star or pound READ used.
INTSUT1
    U 0 R *X:0
   DISPLAY+17   S - Star or pound READ used.
UTSRD
   INHUTSRD     W - First line tag NOT routine name.
    R X#DIRL2+('DIRL3):DTIME E  G TO
   I+2          S - Star or pound READ used.
    YNA W:P]"" ! W P_$J("",4-$L(P)) W:DIRF]"" DIRF_"// " R X#3:DTIME Q:'$T "0^1"
   YNA          S - Star or pound READ used.
   FLUSH N X X ^%ZOSF("EOFF") F  R *X:0 Q:X=-1
   FLUSH        S - Star or pound READ used.
   CR0 R !,"Press <RETURN> to continue:",X#200:DTIME Q $E($G(X))="^"!'$T
   CR0          S - Star or pound READ used.
    W *7 R L#100:DTIME Q $E(L)="^"
   MESS1+3      S - Star or pound READ used.
ZTFNTM
    R %#5:$S($D(DTIME):DTIME,1:300) S:%="" %=$E("YN",'YN+1) E  S DTOUT=1 Q 0
   YN1+1        S - Star or pound READ used.

3.    Invalid local variable name.

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

FLATNAM+14^INTSUT3
    ..N $ET

4.    Non-standard $Z special variable used.
```

```
Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

INHSYSE
    S %NODE="^UTILITY($J)",$ZT="ERR^INHSYSE"
     SV2FLT+7     S - Non-standard $Z special variable used.
INHSYSE
    S %RTNBFR="^UTILITY(""INHSYS"",",$ZE="",$ZT="ERR^INHSYSE"
     RSFRFLT+4    S - Non-standard $Z special variable used.
INHSYSE
    S X=$$CLOSESEQ^%ZTFS1(INAME),$ZT=""
     ERR+1        S - Non-standard $Z special variable used.
INHVZTFE
    I IPS["C",$ZE["CTRAP" Q 1  ; cks for CTRAP & CTRAPERR in DSM 6.3
   ETYPE+13     S - Non-standard $Z special variable used.
    I IPS["A",$ZE["ALLOC" Q 1
   ETYPE+14     S - Non-standard $Z special variable used.
    I IPS["N",$ZE["NOSYS" Q 1  ; NOSYS err may not exist in DSM 6.3
   ETYPE+15     S - Non-standard $Z special variable used.
    I IPS["D",$ZE["DSTDB" Q 1  ; DSTDB err may not exist in DSM 6.3
   ETYPE+16     S - Non-standard $Z special variable used.
    I IPS["O",(($ZE["DSM-E-READERR")!($ZE["DSM-E-DEVALLOC")) Q 1
   ETYPE+17     S - Non-standard $Z special variable used.
   ETYPE+17     S - Non-standard $Z special variable used.
INTSUT3
   ..S $ZE="",$ZT="ERR^INTSUT3"
   FLATNAM+15   S - Non-standard $Z special variable used.
ZINETNTM
    S $ZT="ERR^"_$T(+0)
   OPEN+8       S - Non-standard $Z special variable used.
    S $ZT="QUIT^"_$T(+0)
   CLOSE+5      S - Non-standard $Z special variable used.
    S $ZT="ERR^"_$T(+0)
   SEND+6       S - Non-standard $Z special variable used.
      S $ZT="ERR^"_$T(+0)
   RECV+11      S - Non-standard $Z special variable used.
   ..I ZITO,$ZC S ZIX(0)="Socket closed: MSM Error $ZB="_$ZB,ZIX="" Q
   RECV+28      S - Non-standard $Z special variable used.
    I $ZE["<DSCON" S ZIX(0)="Remote end disconnected" X:$G(ZICHAN) "C 56:ZICHAN S
ZICHAN="""""" U:INDI]"" INDI Q
   ERR+1        S - Non-standard $Z special variable used.
ZTFENTM
    I IPS["C",$ZE["INRPT" Q 1
   ETYPE+13     S - Non-standard $Z special variable used.
ZTFENTM
    I IPS["A",$ZE["PGMOV" Q 1
   ETYPE+14     S - Non-standard $Z special variable used.
    I IPS["N",$ZE["NOSYS" Q 1
   ETYPE+15     S - Non-standard $Z special variable used.
    I IPS["D",$ZE["DSTDB" Q 1
   ETYPE+16     S - Non-standard $Z special variable used.
    I IPS["O",$ZE["NOPEN" Q 1
   ETYPE+17     S - Non-standard $Z special variable used.
    I IPS["V",$ZE["NODEV" Q 1
   ETYPE+18     S - Non-standard $Z special variable used.
ZTFNTM
    I X="C",$ZE["INRPT" S %=1
   ETYPE+5      S - Non-standard $Z special variable used.
    I X="A",$ZE["PGMOV" S %=1
   ETYPE+6      S - Non-standard $Z special variable used.
    Q $ZV
```

```
    OS+1          S - Non-standard $Z special variable used.
     S $ZT="UCICHK1" N V
    UCICHECK+1    S - Non-standard $Z special variable used.
     N EC S EC="" I $G(C) S EC=$TR($P($ZE,":",4,5),":") S:EC
EC=$P($T(@EC^%ERRCODE),";",2)
    ZE+2          S - Non-standard $Z special variable used.
     Q $ZE_EC
    ZE+3          S - Non-standard $Z special variable used.
ZTOS
     Q $ZE
    GETERR+1      S - Non-standard $Z special variable used.

5.    Undefined Special Variable.

Exception request:  The following software was provided to IHS by SAIC.  After
discussion with Frank Wilcox at SAIC, the following exceptions to the IHS SAC are
required.

SV2FLT+7^INHSYSE
    S %NODE="^UTILITY($J)",$ZT="ERR^INHSYSE"
RSFRFLT+4^INHSYSE
    S %RTNBFR="^UTILITY(""INHSYS"",",$ZE="",$ZT="ERR^INHSYSE"
ERR+1^INHSYSE
    S X=$$CLOSESEQ^%ZTFS1(INAME),$ZT=""
```

14.0   Glossary

Archiving

The storing of historical or little-used data off-line (often on tape).

Banner

A line of text with a user's name and domain.

Callable Entry Points

Places in a routine that can be called from an application program.

Cross-reference

An indexing method whereby files can include pre-sorted lists of entries as part of the stored database. Cross-references (x-refs) facilitate look-up and reporting.

Entry Point

Entry point within a routine that is referenced by a "DO" or "GOTO" command from a routine internal to a package.

Event Type

A message that is sent that signifies a particular event on the system. (i.e., an admit, discharge, etc.)

File

A set of related records or entries treated as a single unit.

FileMan

The database management system for RPMS.

Global

In MUMPS, global refers to a variable stored on disk (global variable) or the array to which the global variable may belong (global array).

HL7

Health Level Seven

INDEX (%INDEX)

A Kernel utility used to verify routines and other MUMPS code associated with a package. Checking is done according to current ANSI MUMPS standards and RPMS programming standards. This tool can be invoked through an option or from direct mode (>D ^%INDEX).

Internal Entry Number (IEN)

The number used to identify an entry within a file. Every record has a unique internal entry number.

ITSC

Information Technology Support Center. The IHS personnel responsible for information systems management and security.

Kernel

The set of MUMPS software utilities that function as an intermediary between the host operating system and application packages, such as Laboratory and Pharmacy. The Kernel provides a standard and consistent user and programmer interface between application packages and the underlying MUMPS implementation. These utilities provide the foundation for RPMS.

Menu

A list of choices for computing activity. A menu is a type of option designed to identify a series of items (other options) for presentation to the user for selection. When displayed, menu-type options are preceded by the word "Select" and followed by the word "option" as in Select Menu Management option: (the menu's select prompt).

Namespace

A unique set of 2 to 4 alpha characters that are assigned by the database administrator to a software application.

Option

An entry in the Option file. As an item on a menu, an option provides an opportunity for users to select it, thereby invoking the associated computing activity. Options may also be scheduled to run in the background, non-interactively, by TaskMan.

Routine

A program or sequence of instructions called by a program that may have some general or frequent use. MUMPS routines are groups of program lines that are saved, loaded, and called as a single unit via a specific name.

Segment

An element in an HL7 message that identifies and contains particular pieces of data.

UCI

User Class Identification: a computing area.

Up-Hat (A)

A circumflex, also know as a "hat" or "caret," that is used as a piece delimiter in a global. The up-hat is denoted as "^" and is typed by pressing Shift+6 on the keyboard.

Utility

A callable routine line tag or function. A universal routine usable by anyone.

Variable

A character or group of characters that refers to a value. MUMPS recognizes 3 types of variables: local variables, global variables, and special variables. Local variables exist in a partition of the main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays.