CIS-DataBridge
[DSIH 1.8]

TECHNICAL MANUAL AND PACKAGE SECURITY GUIDE

Feb 2013 **Version 1.8**

Revision History

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Nov 3, 2011	1.7	Updates for Version 1.7T6	D. Nitsche
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Dec, 13, 2011	1.7	Updates for Version 1.7T8	D. Nitsche
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Aug 7,2012	1.8	Updates for Version 1.8T7	D. Hugger
Aug 20,2012	1.8	Updates for Version 1.8T8	Y. Kwon
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Sep 14,2012	1.8	Updates for Version 1.8T10	Y. Kwon
Sep 18, 2012	1.8	Updates for Version 1.8T11	E. J. Gustin
Sep 22, 2012	1.8	Updates for Version 1.8T12	E. J. Gustin
Sep 28, 2012	1.8	Updates for Version 1.8T13	E. J. Gustin
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Oct 16,2012	1.8	Updates for Version 1.8T15	D. Hugger
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Dec 21, 2012	1.8	Updates for Version 1.8T18	Y. Kwon
Feb 5, 2013	1.8	General updating – remove detailed DSIHX references, update diagrams and GUI sections	E. J. Gustin/Victor Hornbeck

Table of Contents

Introduction

The CIS-DataBridge application contains the necessary components to send and receive Health Level Seven (HL7) messages to Intensive Care Unit (ICU) and Anesthesia Record Keeper (ARK) vendor applications and VistA extracts for Data Analytics. The secondary option contains all of the RPC's required to operate the DataBridge Monitor graphical user interface (GUI) application.

Below are the five main components of the CIS-DataBridge application:

1. **HL7 message processing for ICU/ARK vendors**: HL7 messages are sent to, and received from, surgery vendor applications. In order to process HL7 messages, installation of one or more of the DSIH vendor "sub-builds" is required. The following sub-builds are available:
    a. DSIHA v1.1 Draeger ARK vendor sub-build
    b. DSIHB v1.1 iMedSoft ARK and ICU vendor sub-build
    c. DSIHC v1.1 Philips ARK and ICU vendor sub-build
    d. DSIHD v1.1 PICIS ARK / ICU vendor sub-build
    e. DSIHE v1.1 G.E. ARK vendor sub-build
    f. DSIHF v1.1 Clinicomp ICU vendor sub-build

2. **DataBridge Monitor GUI for HL7 message support**: The GUI allows sites to verify parameters and HL7 configurations as well as view messages for any of the DSIH* logical links.

3. **VistA extracts for Data Analytic reporting**: CIS-DataBridge extracts surgery, pharmacy administration, visit and PTF data to text files to be uploaded to a Data Analytics reporting system. The extracts can be run manually but are designed to be queued automatically to update the Analytics system with current information.

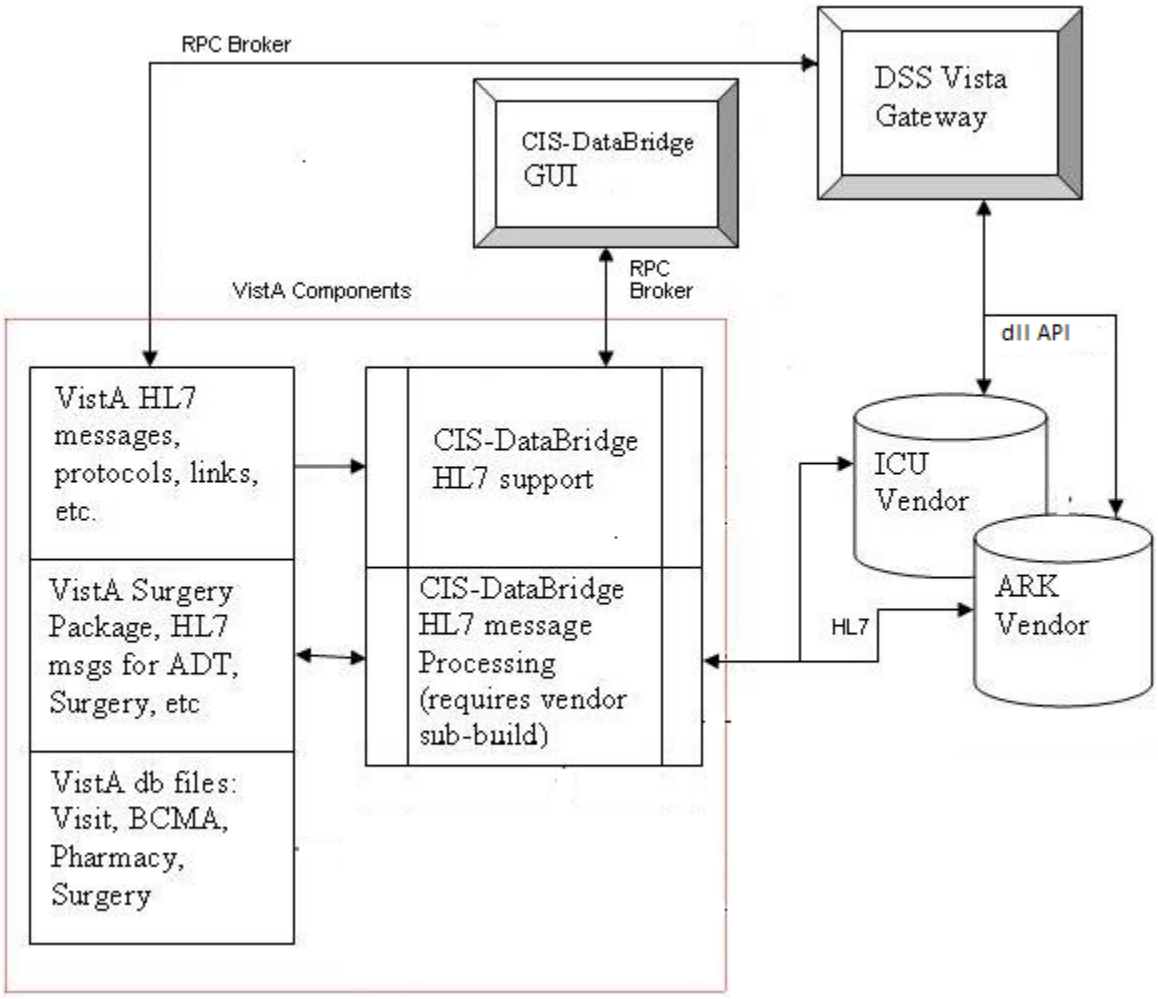
4. **DSS VistA Gateway**: Remote Procedure Call (RPC) Broker interface. A Windows dynamic link library (DLL) that allows the ICU/ARK vendors to execute RPCs for access to VistA that is not available via HL7.

5. **DSS Enterprise Manager "Watchdog"**: RPC Broker application that will provide 24/7 HL7 queue and error trap monitoring and support (future development).

CIS-DataBridge component Table View

Module Name	Language	Primary Db	Secondary Db	Communications
HL7 msg processing	M/Cache	VistA	Vendor specific	HL7
DataBridge Monitor	Delphi	VistA	NA	Client via RPC
VistA Extracts	M/Cache	VistA	Oracle	Text file output
DSS VistA Gateway	Delphi	VistA	Vendor specific	Client via RPC
DSS Enterprise Mgr	Delphi	VistA	NA	Client via RPC

Flowchart of CIS-DataBridge processing



Functionality

- Transfers ADT messages generated in VistA to vendor partner applications via DSIH logical links.
- Transfers Allergy messages via VDEF to vendor applications.
- Transfers lab and radiology messages from VistA on verified results to vendor partner applications.
- Transfers surgery SIU and ORU messages from VistA to vendor partner applications.
- Transfers order ORM messages from VistA to vendor partner applications.
- Transfers vital sign and allergy messages from VistA to vendor partner applications.
- Transfers surgery ORU messages from the vendor application to VistA to update the surgical cases.
- Displays HL7 messages and configuration data.

Information on GUI software

Intranet Documentation
User and admin guide documentation for this product (including technical manual and package security guide, and installation guide) is available on a DSS website. The link to the website will be provided prior to the release of DSIH 1.8

GUI and Windows
GUI stands for Graphical User Interface, most frequently seen as the Windows screen. If you have already used programs with these screens, then the GUI screen will seem familiar to you. The GUI is only implemented on the Microsoft Windows platform at this time.

If you have little or no familiarity with Windows, you can browse through the Windows help file for information about the basics of using Windows. Also, see the next few paragraphs for brief descriptions of some GUI features.

To access the Windows Help File, click on the **Start** button in the taskbar and then click on the **Help** option. Use this help file as a reference whenever you have general questions about Windows.

Update the GUI screen-- The following is an example of what a GUI screen looks like:

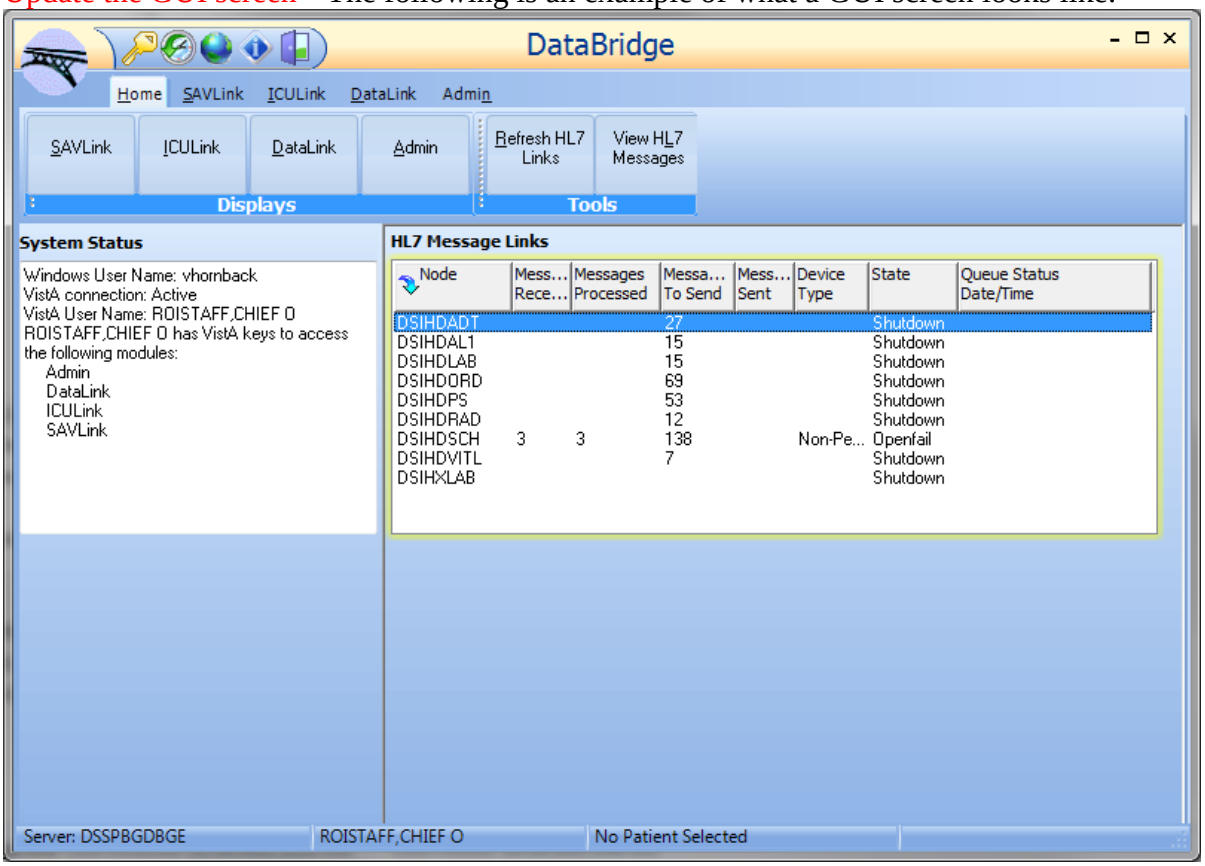
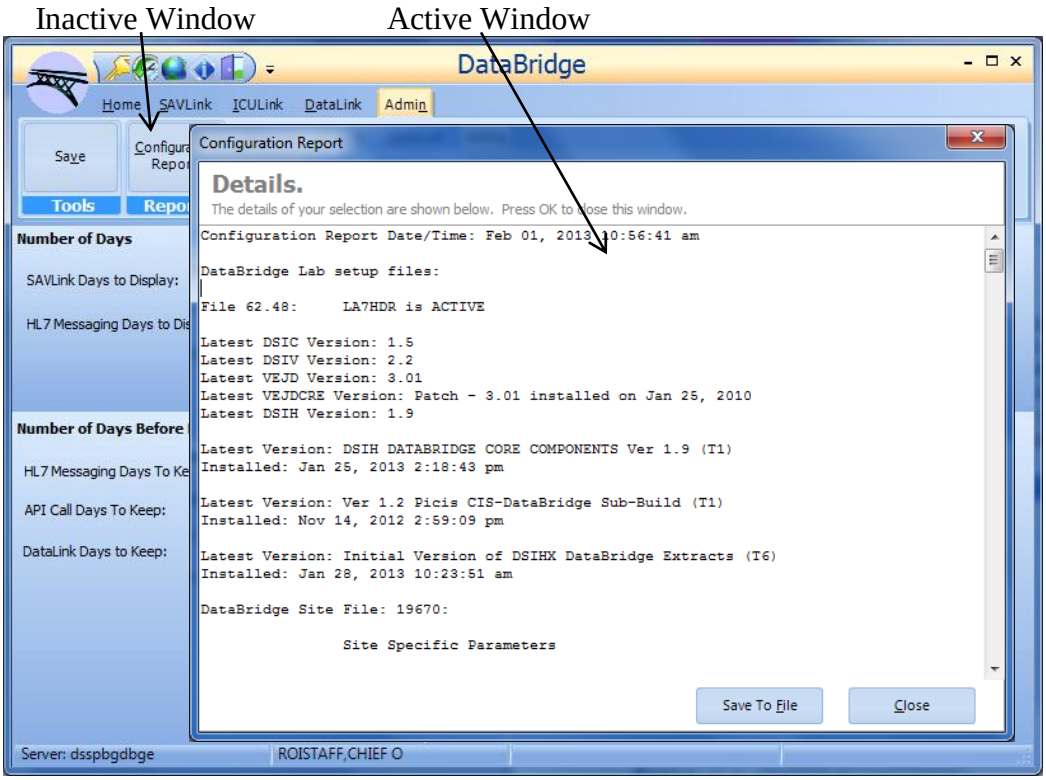


Figure 1

Windows

An Application Window is the area on your computer screen used by a program. If you have more than one program running at the same time, you can go from one program to another by clicking in each application window. The currently active window contains a colored bar (usually blue) at the top of the window. An inactive window contains a gray bar at the top of the window. You can also move, close or minimize the application window to make room for another window. (See Help in Windows for further instructions on these functions.)



These are "mini" windows (or dialogs) that pop-up within a window to provide or request information. Usually they require some action before they will close. Clicking on buttons with the words **Cancel**, **Close** or something similar closes these windows.

Help

Online help and documentation are available in several formats: hints, context-sensitive help, menu help and Internet Web documentation.

Hints

Place the cursor over a specific button and a pop-up box will appear containing a short description of that button's functionality.

Access Keys

Use access keys to quickly get to an option through the pull-down menus by pressing and holding down the **<Alt>** key on the keyboard and pressing the underlined letter key of the

desired pull-down menu, then (while still holding down the <**Alt**> key) press the underlined letter key of the desired option.

Delphi Toolkits
Specific DataBridge modules use RPC Broker (see above product table) and various Delphi Components in the display and navigation of screens. Below is a list of the Delphi components (VCL) that are currently used along with a short description.

Delphi

TMS	TMS software supplies a variety of visual components that allows the Delphi developer to simulate a Windows Microsoft Vista "look and feel" to be in compliance with the "2007 Microsoft Office System user Interface Design Guidelines"; otherwise known as the Windows "fluent" user interface.
JEDI	JVCL is a library of more than 600 visual and non-visual components for Delphi. It is completely free for all developers (open source, shareware or commercial) and includes the full source to all components.
DevExpress	DevExpress provides a library of Delphi components, such as grids and style repositories. The full source to all components is included.
RPCBroker	Used for all non-FTP communication with the server.

Implementation and Maintenance

Description
This chapter provides guidelines for implementing the DSIH application. It is important to complete all of the steps contained in this chapter before assigning the menu option.

Initial Installation of Software
The following steps should be followed when the DSIH software is installed in an environment where no previous installation of the DSIH application has taken place.

1. Setting up the software environment

Information Resource Management Services (IRMS) staff should install the software using the Installation Guide in a test environment prior to installing the software in the production (VAH) account. The following VistA packages should reside in the environment where the DSIH DataBridge Core application is to be installed:

a) VA FileMan V. 22 or greater,

b) Kernel V. 8.0 or greater,
c) Kernel Toolkit V. 7.3 or greater,
d) Kernel RPC Broker V. 1.1 or greater,
e) Registration (DG) 5.3 or greater
f) Order Entry (OR) 3.0 or greater,
g) Text Integration Utilities (TIU) 1.0 or greater,
h) Health Level Seven (HL) 1.6 or greater,
i) Surgery (SR) 3.0 or greater,
j) VEJD DSS Core RPCs v4.8 or greater.
k) DSIC v1.5 for greater,
l) LA*5.2*68 (Released)
m) DSIV 2.2 or greater

2. Name spacing and file listing

DSIH is found in the DSIH* namespace. All routines, templates and options begin with DSIH. File numbers are in the range of 19670 to 19679.99 and are stored in the ^DSIH global.

******First Time Installation Only! Placement of M Global!******
This build contains the ^DSIH global.
[If you have other DSS Inc products, you may already have the ^DSI* global placed.]

3. Editing site configurable files

There are two site configurable files—File 19670 & 19675. Site choices are set during the post-install process or by using the Edit parameters option. Below are the fields and descriptions of choices – most of these parameters are defaulted by the post-installation:

File 19670 – DSIH DATABRIDGE PARAMETERS

```
SITE NAME                          POINTER TO INSTITUTION FILE (#4)
SITE TRANSMIT SURGICAL MESSAGES    Yes/No (default=Yes)
HL7 MESSAGE CUT OFF METHOD         TIME/EVENT/NONE (default=NONE)
```

The cutoff method is used to stop inter-operative S-14 messages from being sent from VistA during the date of surgery. If 'None' is chosen, all S-14 messages will be sent. Cutoff can be done by time, or event. If a time of 0600 is entered, then all messages for surgery on that date after that time would not be transmitted. The event method is more flexible. If a case is scheduled during the morning of surgery, the messages would be transmitted until the event selected occurs—patient time in OR is an example. This event would be checked for a date/time before stopping the message. The event is free text in its storage, but is set up to include the following:

;;1;.203~TIME PAT IN HOLD AREA
;;2;.205~TIME PAT IN OR
;;3;.21~ANES CARE START TIME
;;4;.22~TIME OPERATION BEGAN

The above fields are from the SURGERY file (#130) and are filled in by the circulating nurse at the beginning of the case.

```
CUT OFF TIME                          FREE TEXT (Edited if Field #1 = TIME)
EVENT                                 FREE TEXT (Edited if Field #1 = EVENT)
HL7 MESSAGE DAYS BEFORE PURGE         NUMBER  (default=90)
API DAYS BEFORE PURGE                 NUMBER  (default=30)
DATALINK DAYS BEFORE PURGE            NUMBER  (default=365)
PRODUCT TYPE (multiple)
   PRODUCT TYPE                       ARK/ICU/BOTH/OTHER (set by sub-build)
   VENDOR                             DRAEGER/DOCUSYS/PHILIPS/PICIS/G.E./
                                      CLINICOMP/MEDFLOW/OTHER (set by sub-build)
   TRANSMIT ADT MESSAGES              Yes/No  (set by sub-build)
   TRANSMIT ALLERGY MESSAGES          Yes/No  (set by sub-build)
   TRANSMIT DIET ORDER MESSAGES       Yes/No  (set by sub-build)
   TRANSMIT GEN ORDER MESSAGES        Yes/No  (set by sub-build)
   TRANSMIT LAB MESSAGES              Yes/No  (set by sub-build)
   TRANSMIT LAB ORDER MESSAGES        Yes/No  (set by sub-build)
   TRANSMIT PHARM ORDER MESSAGES      Yes/No  (set by sub-build)
   TRANSMIT RADIOLOGY MESSAGES        Yes/No  (set by sub-build)
   TRANSMIT RAD ORDER MESSAGES        Yes/No  (set by sub-build)
   TRANSMIT CLINIC SIU MESSAGES       Yes/No  (set by sub-build)
   TRANSMIT SURGICAL MESSAGES         Yes/No  (set by sub-build)
   Surg ORU MESSAGES                  Yes/No  (set by sub-build)
   TRANSMIT VITALS RESULTS            Yes/No  (set by sub-build)
```

File 19675 - DSIHX EXTRACT PARAMETERS FILE

```
NAME                                  Name of this extract parameter.
DATA FILE PATH                        FREE TEXT
       Location to output text files
BEGINNING DATE SPAN                   FREE TEXT
       Start date for search in format "xM" or "xD" where "x" is a numeric value between 1 and 99.
ENDING DATE SPAN                      FREE TEXT
       End date for search in format "xM" or "xD" where "x" is a numeric value between 1 and 99.
NEW RECORD PRE DAYS                   NUMBER
       Data prior to the admission event or non-OR procedure event
       That should be extracted
ICU WARD NAME (Multiple)
  ICU WARD NAME                       POINTER to Ward Location file (#42)
       Wards that are used to screen HL7 messages and extract data
       This field is used for DSIH 1.8 HL7 message throttling for ICU vendors
PCE INCREMENT COUNT                   NUMBER
PCE pause in seconds                  NUMBER
BCMA INCREMENT                        NUMBER
BCMA PAUSE IN SECONDS                 NUMBER
PHARMACY PROFILE INCREMENT            NUMBER
PHARMACY PROFILE PAUSE IN SEC         NUMBER
```

4. Queuing TaskMan jobs

There are three queued TaskMan jobs associated with this application:

a. NAME: **DSIHH HL7 MESSAGE PURGE**
   MENU TEXT: AUTO PURGE HL7 MESSAGES FROM FILE 19671
   TYPE: run routine.
   PACKAGE: DATA BRIDGE
   DESCRIPTION: THIS SCHEDULED OPTION scans the file 19671 for HL7 records that are older than the purge date. The old records are removed from the file.

ROUTINE: EN^DSIHHL7P SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: AUTO PURGE HL7 MESSAGES FROM F

b. NAME: **DSIHH AUTO CHECK LINKS**
MENU TEXT: Auto Check DataBridge logical links
TYPE: run routine
PACKAGE: DATA BRIDGE
DESCRIPTION: This option is scheduled in TaskMan to check the links every two hours, or however it is set by the site.
ROUTINE: EN^DSIHHMON SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: AUTO CHECK DATABRIDGE LOGICAL

c. NAME: **DSIHH HL7 STATUS UPDATE** MENU TEXT: HL7 MESSAGE UPDATER TYPE: run routine .
PACKAGE: DATA BRIDGE DESCRIPTION: This option is scheduled by the site to update the status of HL7 messages after they are created in file 19671. Initially the status is pending transmission and eventually the status goes to complete. The status is shown on the CIS-DataBridge Monitor GUI and needs to be accurate. The scheduled option will keep checking messages until they are complete and then the cross reference is dropped.
ROUTINE: UPSTAT^DSIHHL7P SCHEDULING RECOMMENDED: YES
UPPERCASE MENU TEXT: HL7 MESSAGE UPDATER

To queue a TaskMan job, do the following:

```
Select OPTION NAME: XUTM MGR        Taskman Management
Select Taskman Management Option: SCHedule/Unschedule Options
Select OPTION to schedule or reschedule: DSIHH HL7 MESSAGE PURGE
Are you adding 'DSIHH HL7 MESSAGE PURGE' as
    a new OPTION SCHEDULING (the 145TH)? No// Y  (Yes)

                        Edit Option Schedule
    Option Name: DSIHH HL7 MESSAGE PURGE
    Menu Text: AUTO PURGE HL7 MESSAGES FROM FILE 19671 TASK ID:
 ------------------------------------------------------------------------

  QUEUED TO RUN AT WHAT TIME: Oct 16,2012@07:00

DEVICE FOR QUEUED JOB OUTPUT:

 QUEUED TO RUN ON VOLUME SET:

      RESCHEDULING FREQUENCY: 1D

             TASK PARAMETERS:

            SPECIAL QUEUEING: Startup Persistent
Exit     Save     Next Page     Refresh


Select Taskman Management Option: SCHedule/Unschedule Options
Select OPTION to schedule or reschedule: DSIHH AUTO CHECK LINKS
```

```
Are you adding 'DSIHH AUTO CHECK LINKS'  as
    a new OPTION SCHEDULING (the 146TH)? No// Y  (Yes)

                        Edit Option Schedule
    Option Name: DSIHH AUTO CHECK LINKS
    Menu Text: Auto Check DataBridge logical li TASK ID:
 ------------------------------------------------------------------------------

  QUEUED TO RUN AT WHAT TIME: Oct 16,2012@07:00

DEVICE FOR QUEUED JOB OUTPUT:

 QUEUED TO RUN ON VOLUME SET:

      RESCHEDULING FREQUENCY: 2H

             TASK PARAMETERS:

            SPECIAL QUEUEING: STARTUP
-------------------------------------------------------------------------------
Exit     Save     Next Page     Refresh


Select Taskman Management Option: SCHedule/Unschedule Options
Select OPTION to schedule or reschedule: DSIHH HL7 STATUS UPDATE
Are you adding ' DSIHH HL7 STATUS UPDATE ' as
    a new OPTION SCHEDULING (the 147TH)? No// Y  (Yes)

                        Edit Option Schedule
    Option Name: DSIHH HL7 STATUS UPDATE
    Menu Text: HL7 MESSAGE UPDATER              TASK ID:
 ------------------------------------------------------------------------------

  QUEUED TO RUN AT WHAT TIME: Oct 16,2012@07:00

DEVICE FOR QUEUED JOB OUTPUT:

 QUEUED TO RUN ON VOLUME SET:

      RESCHEDULING FREQUENCY: 1H

             TASK PARAMETERS:

            SPECIAL QUEUEING: Startup Persistent
-------------------------------------------------------------------------------
Exit     Save     Next Page     Refresh


Select Taskman Management Option: SCHedule/Unschedule Options
Select OPTION to schedule or reschedule: DSIHQS AUTO EXTRACT
Are you adding 'DSIHQS AUTO EXTRACT'  as
    a new OPTION SCHEDULING (the 148TH)? No// Y  (Yes)

                        Edit Option Schedule
    Option Name: DSIHQS AUTO EXTRACT
    Menu Text: ICU Auto Extract TASK ID:
 ------------------------------------------------------------------------------
```

```
  QUEUED TO RUN AT WHAT TIME: Oct 16,2012@07:00

DEVICE FOR QUEUED JOB OUTPUT:

 QUEUED TO RUN ON VOLUME SET:

      RESCHEDULING FREQUENCY: 1M

             TASK PARAMETERS:

            SPECIAL QUEUEING: Startup Persistent
```

Exit Save Next Page Refresh

```
Select Taskman Management Option: SCHedule/Unschedule Options
Select OPTION to schedule or reschedule: DSIHQS AUTO EXTRACT UPDATE
Are you adding 'DSIHQS AUTO EXTRACT UPDATE' as
    a new OPTION SCHEDULING (the 149TH)? No// Y  (Yes)

                        Edit Option Schedule
    Option Name: DSIHQS AUTO EXTRACT UPDATE
    Menu Text: ICU Auto Extract Update  TASK ID:
```

```
  QUEUED TO RUN AT WHAT TIME: Oct 16,2012@07:00

DEVICE FOR QUEUED JOB OUTPUT:

 QUEUED TO RUN ON VOLUME SET:

      RESCHEDULING FREQUENCY: 1M

             TASK PARAMETERS:

            SPECIAL QUEUEING: Startup Persistent
```

Exit Save Next Page Refresh

5. Accessing modules

The CIS-DataBridge Main Menu options are available to users with the DSIHH DATABRIDGE MAIN MENU. The CIS-DataBridge Monitor GUI is available through the DSIHH DATABRIDGE, DataBridge Monitor secondary menu option.

6. Assigning modules

The DataBridge Monitor menu application should be assigned to clinical staff. The coordinator of the application is assigned the DataBridge Main menu.

7. Security keys

There are four security keys to be allocated. These are for access to the GUI screens for DataLink, ICUlink, SAVLink and Admin.

NAME: DSIHH ADMIN DESCRIPTIVE NAME: Admin screen access
DESCRIPTION: This key controls the user access to the Administrative screen (module) of the DataBridge Monitor GUI.

NAME: DSIHH DATALINK DESCRIPTIVE NAME: DATABASE access
DESCRIPTION: This key controls the user access to the Database screen of the DataBridge Monitor GUI.

NAME: DSIHH ICULINK DESCRIPTIVE NAME: ICU screen access
DESCRIPTION: This key controls the user access to the ICU screen of the DataBridge Monitor GUI.

NAME: DSIHH SAVLINK DESCRIPTIVE NAME: Savlink screen access
DESCRIPTION: This key controls the user access to the Savlink screen of the DataBridge Monitor GUI.

8. Printer issues

There are no print options.

9. On-line Help

Throughout the application, on-line help is available when questions arise.

Subsequent Installation of Software

Stop all DSIH logical links before installing a new version of DSIH DataBridge Core software. Depending on the vendors, there may be multiple DSIH links to stop. Run the System link monitor from the HL7 main menu:

(View is 'DSIH', **note: this is an example for the Vendor PICIS,** other vendor links will be namespaced DSIHx with the vendor letter)

Select HL7 Main Menu Option: **SY** systems Link Monitor

```
    SYSTEM LINK MONITOR for VAMC ALBANY (P System)

             MESSAGES  MESSAGES   MESSAGES  MESSAGES  DEVICE
 NODE        RECEIVED  PROCESSED  TO SEND   SENT      TYPE     STATE

DSIHDADT     0         0          22        0          NC      Shutdown
DSIHDAL1     0         0          4         0          NC      Shutdown
DSIHDLAB     0         0          46        0          NC      Shutdown
DSIHDSCH     0         0          4         0          NC      Shutdown
DSIHDPS      0         0          0         0          NC      Shutdown
DSIHDRAD     0         0          2         0          NC      Shutdown
DSIHDORD     0         0          7         0          NC      Shutdown
```

```
DSIHDVITL    0          0          4          0          NC      Shutdown

   Incoming filers running => 1          TaskMan running
   Outgoing filers running => 1          Link Manager running
                          Monitor current [next job 0.9 hr]
    Select a Command:
(N)EXT  (B)ACKUP  (A)LL LINKS  (S)CREENED  (V)IEWS  (Q)UIT  (?) HELP:
```

In this example there are six DSIH links to stop. The display shows them in the state that is needed for installing the new version—Shutdown.

1) Stop the logical link.
2) Install the new build.
3) Restart the same logical links.

Select a Filer and Link Management Option: **SL** Start/Stop Links

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

Select HL LOGICAL LINK NODE: **DSIHDADT**
The LLP was last started on MAY 12, 2012 14:11:21.

Okay to shut down this job? **Y**ES
The job for the DSIHDADT Lower Level Protocol will be shut down.

Implementation Considerations

DataBridge is a source of HL7 messages which will be used for ICU and ARK vendor packages. The package should be installed just before the other packages and the outgoing HL7 messages checked with VistA tools, CIS-DataBridge Monitor GUI or the DSS Enterprise Manager HL7 tool. The messages are displayable, printable or can be sent to DSS, Inc for consultation purposes.
The vendor product in the DSIH Parameter file (#19670) will be defined when the vendor sub-build is installed. More than one vendor can be supplied with messages at the same time. Additional protocols and logical links will be necessary to direct the messages to the newer vendor.

The logical links can be left in the shutdown status to build up a queue of messages to examine. Normally this is only for a few days in the beginning. If it is desired to stop the formation of the messages, the HL7 applications can be inactivated (DSIH SR).

A troubleshooting guide is available for CIS-DataBridge that describes the installation parameter steps that can and should be verified if there are issues with the DSIH application/installation.

We have created a new option that will allow A03 and A13 messages for all patients in the hospital to transmit to the vendor application.

Resource Requirements

There is one global (^DSIH) included in this build.

Globals	Type of Data	Size
^DSIH(19670,	Parameter file	1K
^DSIH(19670.01,	DSIH HL7 EXCHANGE	50K
^DSIH(19671,	HL7 Tracker file	??? 90 days of records
^DSIH(19671.5,	Vendor events	1K
^DSIH(19672,	API Tracking	??? 90 Days of records
^DSIH(19672.1,	DSIHH DATABRIDGE MENUS	1K
^DSIH(19672.2,	DSIHH DATABRIDGE API METHODS	1K
^DSIH(19673,	TASKMAN Tracking	2K
^DSIH(19673.2,	DSIH SURGERY INTERFACE PARAMETERS	2K
^DSIH(19675,	DSIHX EXTRACT PARAMETERS	1K
^DSIH(19676,	DSIH LINK MONITOR	???
^DSIH(19678,	DSIH DATABRIDGE SURGERY LOCATIONS	1K

Server	Type of Data	Size
	DataBridge.exe	6.8 mb

The tracker file will keep a record for all DSIH messages generated. A purge date is set in each message record upon creation—usually 90 days. The site can elect to shorten this purge date to keep the file entries and global size smaller.

Routine Descriptions

There are 49 routines in this build.

```
DSIHHA    ;Entry point for processing surgical SIU messages
DSIHHADT  ;Entry point for processing ADT messages, inpatient and out
DSIHHAL1  ;Entry point for processing Allergy messages
DSIHHAL2  ;Utilities for allergy messages
DSIHHAPI  ;RPC entry points for API Tracking file 19672
DSIHHAU   ;Utility functions; code expansion for race, religion, county etc
DSIHHBKO  ;Package Back-out code
DSIHHCLR  ;DataBridge HL7 Logical Link clear
DSIHHDD   ;DataBridge Data Dictionary updates for file 19670
DSIHHDO   ;Entry point to process Diet order messages
DSIHHICU  ;RPC entry point for ICU Bed list
DSIHHIN   ;DFT^P03 Incoming message processing
DSIHHIN1  ;continuation of DFT^P03 processing
DSIHHL01  ;HL7 Exchange utilities
DSIHHL7P  ;Purge routine for file 19671; option DSIHH HL7 Message Purge
DSIHHLAB  ;Entry point for processing Lab messages
DSIHHLK   ;Entry point for UNLOCK of logical links
DSIHHLO   ;Entry point to process lab order messages
```

```
DSIHHLOT  ;HL7 exchange utilities Transforms
DSIHHMON  ;Entry point for HL& logical link monitor
DSIHHNO   ;Entry point to process nursing order messages
DSIHHPS   ;main driver for Pharmacy orders
DSIHHPS1  ;continuation of Pharmacy order processing
DSIHHPST  ;Post install routine—configures parameters and subscribes
protocols
DSIHHRA1  ;continuation of Radiology results processing
DSIHHRAD  ;Main driver for processing verified Radiology results
DSIHHRO   ;Entry point for processing Radiology order messages
DSIHHSI   ;Vendor list RPC processing for surgery
DSIHHSIU  ;Entry point for appointment SIU messages
DSIHHSO   ;screen logic to create dynamic links
DSIHHSOD  ;DataBridge Interface LOAD OPERATION DATA
DSIHHSR2  ;Builds Surgical schedule for RPC DSIHH DATABRIDGE SR GET SCH
DSIHHSR3  ;Maintain Surgical location file 19678
DSIHHSR4  ;Surgery Interface Receiver of ORU message
DSIHHSR5  ;Surgery Interface to process incoming segments
DSIHHSRI  ;Surgery Interface to process incoming SIU messages
DSIHHSU   ;Builds old bed into A08 messages
DSIHHSUN  ;Entry point for Surgery ORU messages
DSIHHT    ;DataBridge HL7 Throttle
DSIHHVI   ;main driver to process incoming QRY messages for vitals
DSIHHVI1  ;continuation of vitals processing
DSIHHVP   ;Post Install for vendor builds DSIHA to DSIHE
DSIHHVP2  ;Vendor Post install utilities
DSIHHVTL  ;Main driver to process outgoing Vital sign messages
DSIHRPC   ;DSIHH RPC's for use with DataBridge GUI's
DSIHRPC2  ;Enterprise Manager RPC for DataBridge Configuration
DSIHRPC3  ;RPC's for Data Link (Data Analytics)
DSIHRPCG  ;RPC's for DataBridge
DSIHSR01  ;Utility routine for DSIHHSR2
```

File Descriptions

19670 DSIH DATABRIDGE PARAMETERS

The parameters file contains all the logic to control the HL7 feeds that are needed by the site. Vendor post installs require this file to be populated before those vendor post installs can be run.

19670.01 DSIH HL7 EXCHANGE

This file contains parameters for working with HLO in taking and placing values into the HL7 structure and performing any transformations that may be necessary. It holds element positions, data type, data type transforms, tables, mapping tables, executable code for tables, and the designation of local variables to be used in parsing and/or build the HL7 messages.

19671 DSIH HL7 TRACKING

This file collects data from HL7 messages generated by the DSIH DataBridge package. There are references to files 772 and 773 to track messages by date/time, patient or message type. This file is purged when the entries are older than the site parameter purge date. This value is usually set to 90 days.

19671.5 DSIH VENDOR PKG EVENT

DataBridge supplies an outbound message for each event type. Normally a vendor subscribes on the DataBridge server protocol for the event desired and the vendor protocol can transmit a copy of the message to an additional server.

If the message is to be screened, and only a portion of these messages sent, the vendor can use this file to place executable code before the message is generated and define the HLL array used with a dynamic link.

This file is NOT intended as a method to change the message stream. To do that, a router protocol must be added to the DataBridge event server.

19672 DSIH VG API TRACKING

File 19672 is used to track specific API's that are run as part of the DataBridge GUI. Once these specified API's are run, the RPC 'DSIHH DATABRIDGE API TRACKER' is used to populate the file with date/time and user information for the API and menu used.

19672.1 DSIHH DATABRIDGE MENUS

File 19672.1 is a supporting pointer file for file 19672. The Vista menu options that are to be tracked by file 19672 are entered in this file. The file entries are never deleted, but may be disabled if tracking is no longer desired for an entry.

19672.2 DSIHH DATABRIDGE API METHODS

File 19672.2 is a supporting pointer file for file 19672. The Vista Gateway methods that are to be tracked by file 19672 are entered in this file. The file entries are never deleted, but may be disabled if tracking is no longer desired for an entry.

19673 DSIH TASKMAN TRACKING

This file tracks the TaskMan jobs that run to support the Data Analytics portion of Data Bridge. Each monthly run of data creates an entry in the file with the Task job number stored. In addition the task number is stored in each record created in file 19675.1. In this manner it is possible to retrieve all of the file records associated with the original queued report.

19673.2 DSIH SURGERY INTERFACE PARAMETERS

This file contains the surgery interface fields that are transmittable via HL7 messages. Unlike file 133.2, this file has a multiple for the vendor which allows a different pattern of send/receive fields.

19675 DSIHX EXTRACT PARAMETERS

This file contains all of the parameters required to control the extraction of data for Data Extracts plus the ICU Ward locations for determining ICU patient messaging .

19676 DSIH LINK MONITOR

The Link Monitor saves date/time events when the DSIH logical links are not functioning. Each tracked logical link has a separate record and a history multiple to allow review of the link over time.

19678 DSIH DATABRIDGE SURGERY LOCATIONS

This file is used to screen outbound messages for origination from valid Locations/Stop codes.

Package Default Definition

```
ENVIRONMENT CHECK :                          DELETE ENV ROUTINE: No
PRE-INIT ROUTINE : PRE^DSIHHPST           DELETE PRE-INIT ROUTINE: No
POST-INIT ROUTINE : EN^DSIHHPST          DELETE POST-INIT ROUTINE: No
PRE-TRANSPORT RTN :
```

FILE #	NAME	UP DATE DD	SEND SEC CODE	DATA COMES W/FILE	SITE DATA	RSLV PTS	USER OVER RIDE
19670	DSIH DATABRIDGE PARAMETERS	YES	YES	NO			
19670.01	DSIH HL7 EXCHANGE	YES	YES	YES	OVER	NO	NO
19671	DSIH HL7 TRACKING	YES	YES	NO			
19671.5	DSIH VENDOR PRG EVENT	YES	YES	NO			
19672	DSIH VG API TRACKING	YES	YES	NO			
19672.1	DSIHH DATABRIDGE MENUS	YES	YES	NO			
19672.2	DSIHH DATABRIDGE API METHODS	YES	YES	YES	OVER	NO	NO
19673.2	DSIH SURGERY INTERFACE PARAMETERS	YES	YES	YES	OVER	NO	NO
19675	DSIHX EXTRACT PARAMETERS	YES	YES	NO			
19676	DSIH LINK MONITOR	YES	YES	NO			
19678	DSIH DATABRIDGE SUGERY LOCATIONS	YES	YES	NO			

```
INPUT TEMPLATE:                                  ACTION:
   DSIH DATABRIDGE PARAMETERS    FILE #19670       SEND TO SITE
   DSIHQS CONFIG    FILE #19675                    SEND TO SITE

MAIL GROUP:                                      ACTION:
   DSIH                                             SEND TO SITE
```

OPTION:	ACTION:
DSIHH AUTO CHECK LINKS	SEND TO SITE
DSIHH DATABRIDGE	SEND TO SITE
DSIHH DATABRIDGE EDIT PARAMS	SEND TO SITE
DSIHH DATABRIDGE LINK CLEAR	SEND TO SITE
DSIHH DATABRIDGE MAIN MENU	SEND TO SITE
DSIHH DATABRIDGE UNLOCK LINK	SEND TO SITE
DSIHH HL7 MESSAGE PURGE	SEND TO SITE
DSIHH HL7 STATUS UPDATE	SEND TO SITE

PROTOCOL:	ACTION:
DSIH DATABRIDGE A01 ROUTER	SEND TO SITE
DSIH DATABRIDGE A02 ROUTER	SEND TO SITE
DSIH DATABRIDGE A03 ROUTER	SEND TO SITE
DSIH DATABRIDGE A04 ROUTER	DELETE AT SITE
DSIH DATABRIDGE A08 ROUTER	SEND TO SITE
DSIH DATABRIDGE A08-SCHED ROUTER	SEND TO SITE
DSIH DATABRIDGE A11 ROUTER	SEND TO SITE
DSIH DATABRIDGE A12 ROUTER	SEND TO SITE
DSIH DATABRIDGE A13 ROUTER	SEND TO SITE
DSIH DATABRIDGE ADT-A01 SERVER	SEND TO SITE
DSIH DATABRIDGE ADT-A02 SERVER	SEND TO SITE
DSIH DATABRIDGE ADT-A03 SERVER	SEND TO SITE
DSIH DATABRIDGE ADT-A04 SERVER	DELETE AT SITE
DSIH DATABRIDGE ADT-A08 SERVER	SEND TO SITE
DSIH DATABRIDGE ADT-A11 SERVER	SEND TO SITE
DSIH DATABRIDGE ADT-A12 SERVER	SEND TO SITE
DSIH DATABRIDGE ADT-A13 SERVER	SEND TO SITE
DSIH DATABRIDGE APT SIU EVENT DRIVER	SEND TO SITE
DSIH DATABRIDGE APT SIU-S12 CLIENT	SEND TO SITE
DSIH DATABRIDGE APT SIU-S12 SERVER	SEND TO SITE
DSIH DATABRIDGE APT SIU-S14 CLIENT	SEND TO SITE
DSIH DATABRIDGE APT SIU-S14 SERVER	SEND TO SITE
DSIH DATABRIDGE APT SIU-S15 CLIENT	SEND TO SITE
DSIH DATABRIDGE APT SIU-S15 SERVER	SEND TO SITE
DSIH DATABRIDGE FH ORDER ROUTER	SEND TO SITE
DSIH DATABRIDGE GRAB A08 ROUTER	SEND TO SITE
DSIH DATABRIDGE IN DFT-P03 CLIENT	SEND TO SITE
DSIH DATABRIDGE IN DFT-P03 SERVER	SEND TO SITE
DSIH DATABRIDGE IN ORU-R01 CLIENT	SEND TO SITE
DSIH DATABRIDGE IN ORU-R01 SERVER	SEND TO SITE
DSIH DATABRIDGE IN SIU CLIENT	SEND TO SITE
DSIH DATABRIDGE IN SIU SERVER	SEND TO SITE
DSIH DATABRIDGE LAB ORDER ROUTER	SEND TO SITE
DSIH DATABRIDGE LAB ROUTER	SEND TO SITE
DSIH DATABRIDGE LAB SERVER	SEND TO SITE
DSIH DATABRIDGE NURSE ORDER ROUTER	SEND TO SITE
DSIH DATABRIDGE ORM-O01 SERVER FH	SEND TO SITE
DSIH DATABRIDGE ORM-O01 SERVER LAB	SEND TO SITE
DSIH DATABRIDGE ORM-O01 SERVER NUR	SEND TO SITE
DSIH DATABRIDGE ORM-O01 SERVER RAD	SEND TO SITE
DSIH DATABRIDGE ORU R01 ADAS SERVER	SEND TO SITE
DSIH DATABRIDGE ORU R01 ADREAC SERVER	SEND TO SITE
DSIH DATABRIDGE ORU R01 AL1 ROUTER	SEND TO SITE
DSIH DATABRIDGE ORU R01 AL1 SERVER	SEND TO SITE
DSIH DATABRIDGE OUTPT A08 ROUTER	SEND TO SITE

DSIH DATABRIDGE PS ROUTER	SEND TO SITE
DSIH DATABRIDGE PS SERVER	SEND TO SITE
DSIH DATABRIDGE RAD ORDER ROUTER	SEND TO SITE
DSIH DATABRIDGE RAD ROUTER	SEND TO SITE
DSIH DATABRIDGE RAD SERVER	SEND TO SITE
DSIH DATABRIDGE SIU-S12 ROUTER	SEND TO SITE
DSIH DATABRIDGE SIU-S12 SERVER	SEND TO SITE
DSIH DATABRIDGE SIU-S13 ROUTER	SEND TO SITE
DSIH DATABRIDGE SIU-S13 SERVER	SEND TO SITE
DSIH DATABRIDGE SIU-S14 ROUTER	SEND TO SITE
DSIH DATABRIDGE SIU-S14 SERVER	SEND TO SITE
DSIH DATABRIDGE SIU-S15 ROUTER	SEND TO SITE
DSIH DATABRIDGE SIU-S15 SERVER	SEND TO SITE
DSIH DATABRIDGE SURG ORU ROUTER	SEND TO SITE
DSIH DATABRIDGE SURG ORU SERVER	SEND TO SITE
DSIH DATABRIDGE VITALS ROUTER	SEND TO SITE
DSIH DATABRIDGE VITALS SERVER	SEND TO SITE
DSIH DATABRIDGE VITALS-IN CLIENT	SEND TO SITE
DSIH DATABRIDGE VITALS-IN SERVER	SEND TO SITE

HL7 APPLICATION PARAMETER:	ACTION:
DSIH CL	SEND TO SITE
DSIH IN	SEND TO SITE
DSIH IN P03	SEND TO SITE
DSIH SIU	SEND TO SITE
DSIH SR	SEND TO SITE
DSIH SURG	SEND TO SITE

PARAMETER DEFINITION:	
DSIH DATABRIDGE HL7 DAYS	SEND TO SITE
DSIH DATABRIDGE HL7 PKG	SEND TO SITE
DSIH DATABRIDGE ICU GRID	SEND TO SITE
DSIH DATABRIDGE SAV DAYS	SEND TO SITE
DSIH DATABRIDGE SAV GRID	SEND TO SITE

REMOTE PROCEDURE:	ACTION:
DSIHH DATABRIDGE ALL VITALS	SEND TO SITE
DSIHH DATABRIDGE API DATE RNG	SEND TO SITE
DSIHH DATABRIDGE API TRACKER	SEND TO SITE
DSIHH DATABRIDGE API UPDATER	SEND TO SITE
DSIHH DATABRIDGE CONFIG	SEND TO SITE
DSIHH DATABRIDGE DL DETAIL	SEND TO SITE
DSIHH DATABRIDGE DL DIRECTORY	SEND TO SITE
DSIHH DATABRIDGE DL GET LIST	SEND TO SITE
DSIHH DATABRIDGE DL PURGE	SEND TO SITE
DSIHH DATABRIDGE HL7 LINKS	SEND TO SITE
DSIHH DATABRIDGE ICU LIST	SEND TO SITE
DSIHH DATABRIDGE LAB RESULT	SEND TO SITE
DSIHH DATABRIDGE MESSAGE EXP	SEND TO SITE
DSIHH DATABRIDGE MESSAGE HDR	SEND TO SITE
DSIHH DATABRIDGE PAT BY DT	SEND TO SITE
DSIHH DATABRIDGE PATH SET	SEND TO SITE
DSIHH DATABRIDGE PATIENT MEDS	SEND TO SITE
DSIHH DATABRIDGE PK/DATE RNG	SEND TO SITE
DSIHH DATABRIDGE PURGE SET	SEND TO SITE
DSIHH DATABRIDGE SR GET SCH	SEND TO SITE

Exported Options

The menu option DSIHH DATABRIDGE is sent with this build. This menu option contains the RPC calls necessary for all CIS-DataBridge Monitor GUI functionality. This option needs to be assigned to all users of the GUI.

```
NAME: DSIHH DATABRIDGE        MENU TEXT: DataBridge Monitor
  TYPE: Broker (Client/Server)
RPC: DG SENSITIVE RECORD ACCESS          RPC: DSIHH DATABRIDGE ICU LIST
RPC: DSIC DDR FILER                      RPC: DSIHH DATABRIDGE LAB RESULT
RPC: DSIC DDR FINDER                     RPC: DSIHH DATABRIDGE MESSAGE EXP
RPC: DSIC DDR GETS ENTRY DATA            RPC: DSIHH DATABRIDGE MESSAGE HDR
RPC: DSIC DDR LISTER                     RPC: DSIHH DATABRIDGE PAT BY DT
RPC: DSIC GET VISITS/APPOINTMENT         RPC: DSIHH DATABRIDGE PATH SET
RPC: DSIC XPAR ADD                       RPC: DSIHH DATABRIDGE PK/DATE RNG
RPC: DSIC XPAR ADD WP                    RPC: DSIHH DATABRIDGE PURGE SET
RPC: DSIC XPAR CHG WP                    RPC: DSIHH DATABRIDGE SR GET SCH
RPC: DSIC XPAR EDIT                      RPC: DSIV DM ADD/DELETE QUEUE
RPC: DSIC XPAR GET VALUE                 RPC: DSIV DM GET STATUS1
RPC: DSIC XPAR GET WP                    RPC: ORWPT PTINQ
RPC: DSIHH DATABRIDGE API DATE RNG       RPC: XUS AV CODE
RPC: DSIHH DATABRIDGE API UPDATER        RPC: XUS DIVISION GET
RPC: DSIHH DATABRIDGE CONFIG             RPC: XUS DIVISION SET
RPC: DSIHH DATABRIDGE DL DETAIL          RPC: XUS GET USER INFO
RPC: DSIHH DATABRIDGE DL DIRECTORY       RPC: XUS SIGNON SETUP
RPC: DSIHH DATABRIDGE DL GET LIST        RPC: XWB GET BROKER INFO
RPC: DSIHH DATABRIDGE DL PURGE           RPC: XWB GET VARIABLE VALUE
RPC: DSIHH DATABRIDGE HL7 LINKS

UPPERCASE MENU TEXT: DATABRIDGE MONITOR
```

The option DSIHH DATABRIDGE MAIN MENU is sent with this build. This menu is used by the installer and coordinator of the CIS-DataBridge application to set parameters, and control the HL7 messages that are sent out. This menu will be used in addition to the DSS Enterprise Manager GUI which has a HL7 tool utility.

```
NAME: DSIHH DATABRIDGE MAIN MENU     MENU TEXT: DataBridge Main menu
  TYPE: menu                         LOCK: DSIHH ADMIN
PACKAGE: VENDOR - DOCUMENT STORAGE SYS
 DESCRIPTION:   This menu option is for Document Storage Systems menu item
for the DataBridge project.
ITEM: DSIHH DATABRIDGE EDIT PARAMS       SYNONYM: EP
ITEM: DSIHH DATABRIDGE LINK CLEAR        SYNONYM: CLL
ITEM: DSIHH DATABRIDGE DL MENU           SYNONYM: DA
ITEM: DSIHH DATABRIDGE UNLOCK LINK       SYNONYM: UL
  TIMESTAMP: 62846,53434               TIMESTAMP OF PRIMARY MENU: 62831,30300
  UPPERCASE MENU TEXT: DATABRIDGE MAIN MENU
```

Remote Procedure Calls (RPC)

(Please refer to file 8994 for details regarding each call listed below.)

NAME	TAG^ROUTINE
DSIHH DATABRIDGE ALL VITALS	VITALALL^DSIHRPCG
DSIHH DATABRIDGE API DATE RNG	OUT1^DSIHHAPI
DSIHH DATABRIDGE API TRACKER	EN^DSIHHAPI
DSIHH DATABRIDGE API UPDATER	UPDATE^DSIHHAPI
DSIHH DATABRIDGE CONFIG	EN^DSIHRPC2
DSIHH DATABRIDGE DL DETAIL	DETAIL^DSIHRPC3
DSIHH DATABRIDGE DL DIRECTORY	EN^DSIHRPC3
DSIHH DATABRIDGE DL GET LIST	GETL^DSIHRPC3
DSIHH DATABRIDGE DL PURGE	PUPA^DSIHRPC3
DSIHH DATABRIDGE HL7 LINKS	SAVMON^DSIHRPC
DSIHH DATABRIDGE ICU LIST	EN^DSIHHICU
DSIHH DATABRIDGE LAB RESULT	RESULT^DSIHRPC
DSIHH DATABRIDGE MESSAGE EXP	EXPAND1^DSIHRPC
DSIHH DATABRIDGE MESSAGE HDR	EXP773^DSIHRPC
DSIHH DATABRIDGE PAT BY DT	PAT^DSIHRPC
DSIHH DATABRIDGE PATH SET	PATH^DSIHRPC3
DSIHH DATABRIDGE PATIENT MEDS	PATMEDS^DSIHRPCG
DSIHH DATABRIDGE PK/DATE RNG	PKGR^DSIHRPC
DSIHH DATABRIDGE PURGE SET	SVPUR^DSIHRPC3
DSIHH DATABRIDGE SR GET SCH	SCH^DSIHHSR2

Archiving and Purging

The DSIH build has one file that requires archiving or purging.

File 19671 DSIH HL7 Tracking fields:

.01	MESSAGE NUMBER		
1	PATIENT ID		
2	CREATE DATE/TIME		
3	RECEIVING APPLIC		
4	MESSAGE TYPE PKG		
4.1	MESSAGE TYPE		
4.2	EVENT TYPE		
5	TRANSMISSION NUM		
6	TRANSMISSION STATUS		
10	**PURGE DATE**	DATE	(No range limit on date)

The Purge Date is set in the sending HL7 routine after the GENERATE^HLMA statement which gives the message number. The purge date is determined by the HL7 MESSAGE DAYS BEFORE PURGE parameter setting in file 19670 field 20. The default value is 90 days.

The purge is done by the scheduled option DSIHH HL7 MESSAGE PURGE. See the Queuing Taskman jobs step above for details.

Callable Routines

There are no callable routines in this application.

External Relations

1. The following VistA applications must reside in the system before DSIH 1.8 can be used:

    a. VA FileMan V. 22 or greater,
    b. Kernel V. 8.0 or greater,
    c. Kernel Toolkit V. 7.3 or greater,
    d. Kernel RPC Broker V. 1.1 or greater,
    e. Registration (DG) 5.3 or greater
    f. Order Entry (OR) 3.0 or greater,
    g. Text Integration Utilities (TIU) 1.0 or greater,
    h. Health Level Seven (HL) 1.6 or greater,
    i. Surgery (SR) 3.0 or greater,
    j. VEJD DSS Core RPCs v4.3 or greater.
    k. DSIC v1.5 for greater,
    l. LA*5.2*68 T36 or greater
    m. DSIV 2.2 or greater

2. DSIH Version 1.8 sends HL7 messages via one or more VistA HL7 Logical Link DSIH* to a vendor workstation. The HL7 Logical link must have the TCP/IP address and Port# defined for the workstation. Also, all of the DSIH* HL applications must have the correct Facility Name defined for the HL7 messages to be built correctly.

3. Vendor access is also available via the Vista Gateway (RPC Broker). The user must have the secondary menu option DSIHx VISTA GATEWAY (where x=vendor letter) which allows the user to access the RPC's include in the option.

4. Integration Control Registration entries (ICR's) between the DSIH software and other VistA applications are summarized in Addendum A.

Internal Relations

The namespace used for Version 1.8 is DSIH. API's are internal DSS, Inc. calls made by the CIS-DataBridge Monitor GUI using the DSIHH DATABRIDGE menu.

Package-Wide Variables

There are no package-wide variables that are used in this application.

SAC Exemptions

There are no SAC Exemptions associated with this application.

Software Product Security

Security Management

No additional security measures are to be applied. DSIH uses the standard RPC broker log-in procedure to validate the user and allow access to the system.

No additional licenses are necessary to run the software.

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

Security Features

1. **Mail groups and alerts**
   There is one mail group associated with this software. Main Group DSIH is set up to monitor the DSIH* logical links and send a mail message to this group. Coordinator is set at post install. Members have to be added to activate this private group.

2. **Remote systems**
   HL7 data is transmitted to vendor applications.

3. **Archiving/Purging**

There is no archiving in this application. File 19671 is purged of data older than 90 days.

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

5. **Interfacing**
   External messaging is received by standard VistA Listener.

6. **Electronic signatures**
   Electronic signatures are not used by the application.

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

8. **Security Keys**
   There are four security keys associated with DSIH:
   NAME: DSIHH ADMIN DESCRIPTIVE NAME: Admin screen access
   DESCRIPTION: This key controls the user access to the Administrative screen (module) of the DataBridge Monitor GUI. This key is also placed on the VistA options 'DSIHH DATABRIDGE MAIN MENU', 'DSIHH DATABRIDGE EDIT PARAMS', 'DSIHH DATABRIDGE LINK CLEAR' and 'DSIHH DATABRIDGE UNLOCK LINK' for menu security.

   NAME: DSIHH DATALINK DESCRIPTIVE NAME: DATABASE access
   DESCRIPTION: This key controls the user access to the Database screen of the DataBridge Reporter GUI. The VistA option 'DSIHH DATABRIDGE DL MENU' contains this key to control access the Data Analytics menu of DataBridge.

   NAME: DSIHH ICULINK DESCRIPTIVE NAME: ICU screen access
   DESCRIPTION: This key controls the user access to the ICU screen of the DataBridge Monitor GUI.

   NAME: DSIHH SAVLINK DESCRIPTIVE NAME: Savlink screen access
   DESCRIPTION: This key controls the user access to the Savlink screen of the DataBridge Monitor GUI.

File Security

NUMBER	NAME	GLOBAL NAME	DD ACC	RD ACC	WR ACC	DEL ACC	LAY ACC	AUD ACC
19670	DSIH DATABRIDGE PARAMETERS	^DSIH(19670,	@	@	@	@	@	@
19670.01	DSIH HL7 EXCHANGE	^DSIH(19670.01	@	@	@	@	@	@
19671	DSIH HL7 TRACKING	^DSIH(19671,	@	@	@	@	@	@
19671.5	DSIH VENDOR PKG EVENT	^DSIH(19671.5,	@	@	@	@	@	@
19672	DSIH VG API TRACKING	^DSIH(19672,	@	@	@	@	@	@
19672.1	DSIHH DATABRIDGE MENUS	^DSIH(19672.1,	@	@	@	@	@	@
19672.2	DSIHH DATABRIDGE API METHODS	^DSIH(19672.2,	@	@	@	@	@	@

```
19673    DSIH TASKMAN TRACKING          ^DSIH(19673,     @    @    @    @    @    @
19673.2  DSIH SURGERY INTERFACE PARAMETERS ^DSIH(19673.2 @    @    @    @    @    @
19675    DSIHX EXTRACT PARAMETERS       ^DSIH(19675,     @    @    @    @    @    @
19676    DSIH LINK MONITOR              ^DSIH(19676,     @    @    @    @    @    @
19678    DSIH DATABRIDGE SURGERY LOCATI ^DSIH(19678,     @    @    @    @    @    @
```

9. **References**
   There are no special reference materials for this package.

10. **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.

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.

ADT: Admission, Discharge, Transfer.

Anesthesia Record Keeper (ARK): Vendor application for Surgery Anesthesia.

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 VISTA applications are the PIMS and Vitals/Measurements application.

Application Programming Interface (API): An interface that a software program implements in order to allow other software to interact with it.

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

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.

Barcode Medication Administration (BCMA): Point-of-care software solution that addresses the serious issue of inpatient medication errors by electronically validating and documenting medications for inpatients.

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

Clinical Information System (CIS): Comprehensive, integrated information system designed to manage the administrative, financial and clinical aspects of a hospital.

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.

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).

Document Storage Systems (DSS): Privately held corporation that is a leading provider of Project Management, Integration, Installation, Training, Technical Support and Development for VistA.

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

Field: A data element in a file.

File: The M construct in which data is stored for retrieval at a later time. It is a group of related records.

File Manager or FileMan: Within this manual, File manager 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.

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

Graphical User Interface (GUI): a Windows-like screen that uses pull-down menus, icons, pointer devices, and other metaphor-type elements that can make a computer program more understandable, easier to use, allow multi-processing (more than one window or process available at once), etc.

Health Level Seven (HL7): Standard for electronic data exchange in all healthcare environments, with special emphasis on inpatient acute care facilities (i.e., hospitals).

Intensive Care Unit (ICU): A hospital location for critical care patients. For CIS-DataBridge, ICU may also represent a vendor application which interfaces with VistA Surgery for ICU patients.

IRMS: Information Resource Management Service. Personnel responsible for managing the CIS.

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: Menu man, TaskMan, Device Handler, Log-on/Security, and other specialized routines.

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

Mailman: An electronic mail, teleconferencing, and networking system.

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

Module: A component of the Vitals software application that covers a single topic or a small section of a broad topic.

Namespace: A naming convention followed in the VA to identify various applications and to avoid collision between applications. It is used as a prefix for all routines and globals used by the application. The Vitals package uses GMV as its namespace.

OIFO: Office of Information Field Office, formerly known as Information Resource Management Field Office and Information Systems Center.

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

ORM: General Order HL7 message.

ORU: Unsolicited Observation HL7 message.

Package: Otherwise known as an application. A set of M routines, files, documentation and installation procedures that support a specific function within VistA (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.

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.

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.

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

SAVLink: DSS application Surgery/Anesthesia/VistA Link that seamlessly interfaces an Electronic Anesthesia Information System with VistA.

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

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

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

SIU: Schedule Information Unsolicited HL7 message.

Software: A generic term referring to a related set of computer programs.

Synonym: A qualifier abbreviation appended to vitals/measurements numeric values on graphic reports.

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."

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.

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

VistA: Veterans Health Information Systems and Technology Architecture.

Vista Data Extraction Framework (VDEF): Creates and delivers HL7 messages within VistA. The VDEF package supports queuing requests for messages, control of the timing of message creation, monitoring of the request queue, and recording of errors encountered during message creation.

Workstation: A personal computer running the Windows 9x or NT operating system.

Addendum A

The table below lists all external routine reference made in the DSIH M routines that would require an Integration Control Registration (ICR).

Note: ICRs will be approved (new ones written if needed) by the custodial packages when DataBridge is locked down and the ICR analysis completed.

ICR#	Usage	Call made by DSIH
10086	Supported	^%ZIS
10089	Supported	^%ZISC
2320	Supported	$$FTG^%ZISH
2320	Supported	$$GTF^%ZISH
2320	Supported	$$PWD^%ZISH
10063	Supported	^%ZTLOAD
2050	Supported	MSG^DIALOG
10006	Supported	^DIC
2051	Supported	$$FIND1^DIC
2051	Supported	LIST^DIC
10009	Supported	FILE^DICN
4778	Controlled	DT^DICRW
2052	Supported	FIELD^DID
10018	Supported	^DIE
2053	Supported	FILE^DIE
2053	Supported	UPDATE^DIE
10013	Supported	^DIK
2054	Supported	$$IENS^DILF
2054	Supported	DT^DILF
2055	Supported	$$EXTERNAL^DILFD
2055	Supported	$$ROOT^DILFD
2056	Supported	$$GET1^DIQ
2056	Supported	GETS^DIQ
10026	Supported	^DIR
10014	Supported	EN^DIU2

ICR#	Usage	Call made by DSIH
5318	Controlled	FIND^DSICDDR0
5318	Controlled	GET^DSICDDR0
		$$GET^DSICDPT1
5325	Controlled	$$MSG^DSICFM01
		$$VFILE^DSICFM06
5323	Controlled	MES^DSICXPDU
10099	Supported	EN1^GMRADPT
2422	Supported	EN1^GMRAOR2
1446	Controlled	EN1^GMRVUT0
New	Controlled	BUILDARY^HLCSMON
10106	Supported	$$FMDATE^HLFNC
10106	Supported	$$FMNAME^HLFNC
10106	Supported	$$HLDATE^HLFNC
10106	Supported	$$HLNAME^HLFNC
2161	Supported	INIT^HLFNC2
2161	Supported	MSH^HLFNC2
2164	Supported	GENERATE^HLMA
2165	Supported	GENACK^HLMA1
4716	Supported	SET^HLOAPI
4718	Supported	$$GET^HLOPRS
10109	Supported	EN^HLTRANS
New	Controlled	FASTVIT^ORQQVI
1684	Controlled	IDINFO^ORWPT
4543	Supported	IEN^PSN50P65
4533	Supported	VAC^PSS50
4549	Supported	ZERO^PSS52P6
4550	Supported	ZERO^PSS52P7
4826	Supported	PSS436^PSS55
1894	Controlled	$$GETENC^PXAPI
1894	Controlled	ENCEVENT^PXAPI
1732	Supported	FINDP^SCUTBK11
New	Controlled	REPORT^SRHLVORU
New	Controlled	OBR^SRHLVUI
New	Controlled	NTE^SRHLVUI2
New	Controlled	OBX^SRHLVUI2
New	Controlled	ERR^SRHLVUO
New	Controlled	MSA^SRHLVUO
New	Controlled	^SROP1
10061	Supported	4^VADPT
10061	Supported	ADD^VADPT
10061	Supported	DEM^VADPT
10061	Supported	IN5^VADPT
10061	Supported	KVA^VADPT
325	Controlled	ADM^VADPT2
3630	Controlled	BLDPID^VAFCQRY
New	Controlled	SEQ10^VAFHLPI1
New	Controlled	SEQ22^VAFHLPI1
3018	Supported	$$IN^VAFHLPV1

ICR#	Usage	Call made by DSIH
3018	Supported	$$OUT^VAFHLPV1
New	Controlled	$$PIVCHK^VAFHPIVT
10112	Supported	$$SITE^VASITE
10103	Supported	$$FMADD^XLFDT
10103	Supported	$$FMDIFF^XLFDT
10103	Supported	$$FMTE^XLFDT
10103	Supported	$$FMTHL7^XLFDT
10103	Supported	$$HL7TFM^XLFDT
10103	Supported	$$NOW^XLFDT
10104	Supported	$$LOW^XLFSTR
10104	Supported	$$UP^XLFSTR
10070	Supported	^XMD
2729	Supported	SENDMSG^XMXAPI

The table below lists all external file references made in the DSIV M routines, or direct Fileman access via the DataBridge GUI that require an Integration Control Registration (ICR).

ICR	Usage	File access by DSIH
New	Controlled	^AUPNVSIT("B"
		File 9000010
New	Controlled	File 9000010.06
New	Controlled	File 9000010.07
New	Controlled	File 9000010.13
New	Controlled	File 9000010.15
New	Controlled	File 9000010.18
New	Controlled	File 9000010.23
1380	Controlled	^DG(405.4
4534	Controlled	^DGP(45.84
New	Controlled	^DGPM(file 405
		^DGPM("ADFN"
		^DGPM("APRD"
		^DGPM("ARM"
		^DGPM("B"
New	Controlled	^DGPT(file 45
		^DGPT("ADS"
		^DGPT("AF"
10111	Supported	File 3.8
10090	Supported	File 4
10075	Supported	File 19
557	Controlled	File 40.7
1576	Controlled	File 40.8
10039	Supported	File 42
New	Controlled	File 42.4
218	Controlled	^DIC(45.3
10035	Supported	^DPT(
		^DPT("B"
		^DPT("SSN"

ICR	Usage	File access by DSIH
New	Controlled	^GMR(120.5
New	Controlled	^HL(771
2507	Controlled	File 771.6
New	Controlled	^HL(772
New	Controlled	^HLCS(869.3
New	Controlled	^HLCS(870
		^HLCS("HLCSLSM" file 870
		^HLCS("HLTCPLINK" file 870
New	Controlled	^HLMA(file 773
		^HLMA("AC"
		^HLMA("B"
5404	Supported	^ICD0(file 80.1
5388	Supported	^ICD9(file 80
New	Controlled	File 80.2
New	Controlled	^OR(100
872	Controlled	^ORD(101
		File 52
		^PS(55
New	Controlled	^PSB(53.79
New	Controlled	File 62.48
10040 93	Supported Controlled	^SC(file 44
4482	Controlled	^SC("AST"
New	Controlled	^SRF(file 130
		^SRF("AC"
		^SRF("ADT"
New	Controlled	^SRO(133.2
3362	Controlled	^SRS(file 131.7
New	Controlled	File 137.45
New	Controlled	File 723
New	Controlled	^VAT(391.71
4011	Controlled	^XWB(8994

The table below lists all Remote Procedures attached to the DSIH DATABRIDGE option or DSIHx VISTA GATEWAY options (for vendors) that require an Integration Control Registration.

ICR	Usage	Remote Procedure Name
3402	Supported	DG SENSITIVE RECORD ACCESS
3403	Supported	DG SENSITIVE RECORD BULLETIN
5317	Controlled	DSIC ACTIVE USER
5370	Controlled	DSIC DATE CONVERT
5324	Controlled	DSIC DDR FILER
5318	Controlled	DSIC DDR FINDER
5318	Controlled	DSIC DDR GETS ENTRY DATA
5318	Controlled	DSIC DDR LISTER
5318	Controlled	DSIC DDR UPDATE FILE

ICR	Usage	Remote Procedure Name
		DSIC DPT GET DEMO
		DSIC PX PRIMARY
5322	Controlled	DSIC XPAR ADD
5322	Controlled	DSIC XPAR EDIT
5322	Controlled	DSIC XPAR GET VALUE
5322	Controlled	DSIC XPAR GET WP
		DSIC XUTIL NAME COMPONENT
		DSIV DM ADD/DELETE QUEUE
		DSIV DM GET STATUS1
4526	Controlled	MAG4 REMOTE IMPORT
4735	Controlled	ORPRF GETFLG
4734	Controlled	ORPRF HASFLG
New	Controlled	ORQOR DETAIL
3288	Controlled	ORQOR LIST
1652	Controlled	ORQPT CLINIC PATIENTS
1651	Controlled	ORQPT PROVIDER PATIENTS
1653	Controlled	ORQPT SPECIALTIES
1654	Controlled	ORQPT SPECIALTY PATIENTS
1656	Controlled	ORQPT TEAM PATIENTS
1655	Controlled	ORQPT TEAMS
1676	Controlled	ORQPT WARDS
1641	Controlled	ORQQAL DETAIL
1639	Controlled	ORQQAL LIST
New	Controlled	ORQQAL LIST REPORT
1643	Controlled	ORQQPL DETAIL
1642	Controlled	ORQQPL LIST
1692	Controlled	ORQQPP LIST
1659	Controlled	ORQQPS LIST
1647	Private	ORQQVI VITALS
New	Controlled	ORQQVI2 VITALS VAL & STORE
3289	Controlled	ORWCS LIST OF CONSULT REPORTS
3290	Controlled	ORWCS REPORT TEXT
New	Controlled	ORWDXC ACCEPT
New	Controlled	ORWDXC SAVECHK
1687	Controlled	ORWLR CUMULATIVE REPORT
New	Controlled	ORWLRR INTERIM
New	Controlled	ORWLRR INTERIMG
3294	Controlled	ORWMC PATIENT PROCEDURES1
New	Controlled	ORWORDG MAPSEQ
3366	Controlled	ORWORR AGET
3367	Controlled	ORWORR GET4LST
4926	Private	ORWPS COVER
4927	Controlled	ORWPS DETAIL
New	Controlled	ORWPS MEDHIST
1817	Controlled	ORWPT ADMITLST
4904	Controlled	ORWPT BYWARD
1684	Controlled	ORWPT ID INFO

ICR	Usage	Remote Procedure Name
New	Controlled	ORWPT INPLOC
3291	Controlled	ORWPT LAST5
1685	Controlled	ORWPT LIST ALL
3292	Controlled	ORWPT PTINQ
1838	Controlled	ORWRA IMAGING EXAMS1
1841	Controlled	ORWRP REPORT TEXT
New	Controlled	ORWSR CASELIST
New	Controlled	ORWTPD GETDFLT
New	Controlled	ORWTPD SUDF
3293	Controlled	ORWU CLINLOC
3363	Controlled	ORWU DT
1836	Controlled	ORWU NEWPERS
1814	Controlled	ORWU VALIDSIG
3194	Controlled	TIU AUTHORIZATION
1805	Controlled	TIU CREATE ADDENDUM RECORD
1806	Controlled	TIU CREATE RECORD
3375	Controlled	TIU DELETE RECORD
3198	Controlled	TIU DOCUMENTS BY CONTEXT
1796	Controlled	TIU GET PERSONAL PREFERENCES
1782	Controlled	TIU GET PN TITLES
1635	Controlled	TIU GET RECORD TEXT
3201	Controlled	TIU IS THIS A CONSULT?
1801	Controlled	TIU LOAD RECORD FOR EDIT
3204	Controlled	TIU LONG LIST OF TITLES
1800	Controlled	TIU REQUIRES COSIGNATURE
1790	Controlled	TIU SIGN RECORD
3210	Controlled	TIU UPDATE ADDITIONAL SIGNERS
4680	Supported	VAFCTFU CONVERT DFN TO ICN
4679	Supported	VAFCTFU CONVERT ICN TO DFN
1630	Private	XUS AV CODE
5198	Private	XUS DIVISION GET
5199	Private	XUS DIVISION SET
2857	Private	XUS GET USER INFO
1632	Supported	XUS SIGNON SETUP
		XWB GET BROKER INFO
1629	Controlled	XWB GET VARIABLE VALUE