



An Electronic Medical Record and Document Management Company

CIS-DataBridge [DSIH 1.9]

INSTALLATION GUIDE

Installation Guide

Version Number 1.9

August 2013

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This package contains M routines, HL7 components and RPCs used by the DSS Inc. CIS-DataBridge application in the DSIH namespace. The software interfaces with VistA and the surgical package in order to assist the Anesthesiology Department document and process cases performed in the Operation Room. It interfaces with CIS (ICU) and Anesthesia Record Keeping (ARK) vendor applications via HL7.

Pre/Post-Installation Considerations

This build **requires** the following patches/builds:

- DSIC 1.5 (or higher).
- VEJD Core 4.3 (or higher).
- DSIV 2.2 (or higher)
- LA*5.2*68 (Released)

See the DSIH 1.9 Technical manual for all VistA integration points (required builds).

This build contains the core CIS-DataBridge components. In order to send HL7 messages for ICU or ARK vendors, one or more vendor "sub-builds" is required. The following sub-builds are available:

DSIHA v1.1	Draeger ARK vendor sub-build
DSIHB v1.1	iMedSoft ARK and ICU vendor sub-build
DSIHC v1.1	Philips ARK and ICU vendor sub-build
DSIHD v1.1	PICIS ARK / ICU vendor sub-build
DSIHE v1.1	G.E. ARK vendor sub-build
DSIHF v1.1	Clinicomp ICU vendor sub-build

The installation prompts for the 'DSIH' mail group user that will receive support messages on the DSIH logical link statuses.

For Existing CIS-DataBridge Sites:

=====

HL7 links should always be stopped before installing the DSIH package. The pre/post installation will save off the link IP/Port settings, but to avoid message loss, the links themselves should be shut down.

There is a 'DSIH' Logical Link View that provides all of the CIS-DataBridge link names. Using the HL MONITOR option type a 'V' as your action and then type 'DSIH' as your view. The links namespaced according to the ICU/ARK vendor, and the following rules apply:

DSIHxyapp
x = Vendor specific character (D=PICIS, E=G.E., etc)
y = A for ARK or I for ICU. This character is optional and does not exist for PICIS
app = VistA application for messages (ADT=ADT, AL1=Allergies, PS=Pharmacy, etc)

Unless you are changing ICU or ARK vendors, then no special post-installation prompts apply. If you are changing vendors you will be prompted to keep or replace the current vendor settings during installation.

With DSIH 1.9 it is now necessary to configure Ward for HL7 Messaging in file 19670. Field #7 ICU WARD NAME (description below) is the new location for this information.

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 1.9 HL7 message throttling for ICU vendors	

Please note that versions prior to DSIH 1.9 required the user to set up the necessary Ward names in file 19675 via the DSIHXS Extract Parameter option. However, as of version 1.9 this parameter field has been moved to file 19670. At this time it is necessary to add the wards to file 19670 via FileMan. Please review step 7 of the Post Installation steps included in this document for directions on how to configure the wards for your site.

For New CIS-DataBridge Sites:

=====

The CIS-DataBridge application contains the core build (DSIH 1.9 – this installation) and one or more sub-builds depending on the ARK and/or ICU vendor selected by the site.

The post-installation for new sites will preset most of the parameters and HL7 components required for processing, but a few parameters, tasked options and user definitions (assigning options) must be set up by the site. See the post-installation for details.

Installation Procedure

This build may be installed with users on the system. It is recommended that users exit the CIS-DataBridge GUI while the install is taking place.

It is not necessary to disable any options in the DSIH package.

Installation will take less than 15 minutes to complete.

The pre-installation saves off the DSIH* logical link port/ip information for restoration after the install for existing sites. The post-install defines most of the CIS-DataBridge parameters, sets up and/or verifies the HL7 events and protocols for all sites and restores the logical link information for existing sites.

Software Retrieval:

The software is available from a DSS FTP directory. Sites will be provided the link, username and password to access the FTP site when they are authorized to install the software.

Below is a list of the files related to this package:

File Description	File Name	FTP Mode

CIS-DataBridge zip files w/build	DSIH_1_9T7.zip	(binary)

The DSIH_1_9T7.zip file contains the following files:

File Name	Description
August 2013	DSIH 1.9

DSIH_1_9T7.KID
DSIH_1_9T7_ig.pdf
DSIH_1_9T7_rn.pdf
DSIH_1_9T7_tm.pdf

KIDS file to install one KIDS build: DSIH 1.9
Installation guide
Release notes
Technical manual

1. **LOAD TRANSPORT GLOBAL**

Retrieve the DSIH_1_9T7.KID from the DSIH_1_9T7 zip file.

Start up the Kernel Installation and Distribution System Menu
[XPD MAIN]:

Edits and Distribution ...
Utilities ...
Installation ...

Select Kernel Installation & Distribution System Option: Installation

Load a Distribution
Print Transport Global
Compare Transport Global to Current System
Verify Checksums in Transport Global
Install Package(s)
Restart Install of Package(s)
Unload a Distribution
Backup a Transport Global

Select Installation Option: LOAD a Distribution

When prompted for "Enter a Host File:" enter the full directory
path where you saved the host file DSIH_1_9T7.KID
(e.g.,SYSSYSDEVICE:[ANONYMOUS]DSIH_1_9T7.KID).

Enter a Host File: DSIH_1_9T7.KID

KIDS Distribution saved on June 4, 2013@10:07:20
Comment: DSIH DATABRIDGE CORE COMPONENTS Ver 1.9 (T7)

This Distribution contains Transport Globals for the following Package(s):
DSIH 1.9
Distribution OK!

Want to Continue with Load? YES//
Loading Distribution...

DSIH 1.9
Use INSTALL NAME: **DSIH 1.9** to install this Distribution.

2. **SELECT Optional INSTALLATION OPTION(s)**

On the Installation Menu, the following are OPTIONAL:

- a. Backup a Transport Global - This option will create a backup message of any routines exported with this patch. It will not backup any other changes such as DD's or templates.
- b. Compare Transport Global to Current System - This option will allow you to view all changes that will be made when this patch is installed. It compares all components of this patch (routines, DD's, templates, etc.).
- c. Verify Checksums in Transport Global - This option will allow you to ensure the integrity of the routines that are in the transport global.

3. **INSTALL PACKAGE(s)**

When prompted for Install Name, choose **DSIH 1.9**

- a. Choose the **Install Package(s)** option to start the patch install.
- b. Install Questions for DSIH 1.9

Enter the Coordinator for Mail Group 'DSIH': **[enter mail group user here]**

Want KIDS to Rebuild Menu Trees Upon Completion of Install? **NO//**

Want KIDS to INHIBIT LOGONs during the install? **NO//**

Want to DISABLE Scheduled Options, Menu Options, and Protocols? **NO//**

Enter the Device you want to print the Install messages.

You can queue the install by enter a 'Q' at the device prompt.

Enter a '^' to abort the install.

DEVICE: HOME// [or select device for output]

Post-Installation Steps

1. If your site has an ICU Vendor and wishes to throttle HL7 messages for the vendor so that only ICU specific messages are transmitted, enter the ICU locations you wish to have sent to the vendor in the following option:

VAH>D ^XUP

Select OPTION NAME: **DSIHH DATABRIDGE DL MENU**
options

Data Analytics Manual

```

FEM      ICU Manual Extract Full
BCMA     Extract manual BCMA--all records
CDE      Configure Data Extract Parameters
PCE      Data Extraction--PCE only
PHAR     Data Link extract--Pharm Profile only

```

Installation for existing CIS-DataBridge sites is complete.

2. Assign the DSIHH* security keys to appropriate users. This is needed to operate the CIS-DataBridge GUI modules. Assign the DSIHH DATABRIDGE secondary menu to users of the DataBridge.exe GUI. The DSIHH DATABRIDGE MAIN MENU requires the DSIHH ADMIN and the DSIHH DATALINK key for the Data Analytics options.
3. Set up parameters for cutoff of messages on day of surgery.

Select DataBridge Main menu Option: EP DataBridge Edit Parameters

```

Select DSIH DATABRIDGE PARAMETERS SITE NAME: [enter your site name or #]
...OK? Yes// (Yes)
SITE NAME: VAMC ALBANY//
SITE TRANSMIT SURGICAL MESSAGES: YES//
HL7 MESSAGE CUT OFF METHOD: NONE//?
Choose from:
    T      TIME
    E      EVENT
    N      NONE
HL7 MESSAGE CUT OFF METHOD: NONE//T TIME
CUT OFF TIME: 0630// [enter desired time here]

```

OR...set up by EVENT

```

HL7 MESSAGE CUT OFF METHOD: TIME// E EVENT ?now I am changing it

```

Select one of 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

```

```

EVENT: 4 .22~TIME OPERATION BEGAN

```

```

Select DSIH DATABRIDGE PARAMETERS SITE NAME:

```

4. Activate the SR* HL7 applications. Use the following example to ensure they are active: Make sure that **both** HL7 applications are Active.

Select Systems Manager Menu Option: **HL7** Main Menu

```

Event monitoring menu ...
Systems Link Monitor
Filer and Link Management Options ...
Message Management Options ...

```


Interface Developer Options ...
Site Parameter Edit

Select HL7 Main Menu Option: **I**nterface Developer Options

EA Application Edit
EP Protocol Edit
EL Link Edit
VI Validate Interfaces
 Reports ...

Select Interface Developer Options Option: **EA** Application Edit

Select HL7 APPLICATION PARAMETER NAME: SR

1 SR AAIS **ACTIVE**
2 SR AAIS-DHCP INACTIVE
3 SR SURGERY **ACTIVE**
CHOOSE 1-3: 1 SR AAIS ACTIVE

HL7 APPLICATION EDIT

NAME: SR AAIS

ACTIVE/INACTIVE: **ACTIVE**

FACILITY NAME: 500

COUNTRY CODE: USA

HL7 FIELD SEPARATOR:

HL7 ENCODING CHARACTERS:

MAIL GROUP:

5. Check that the Surgery Interface inside the Surgery package has been enabled. Unless another interface has been done in surgery, this interface will be off. Use the following VistA Surgery options to enable the interface to send messages

Select OPTION NAME: **SROMENU** Surgery Menu

***** CPT COPYRIGHT NOTICE *****

Select Division: **500** VAMC ALBANY NY VAMC 500

Select Surgery Menu Option: **M** Surgery Package Management Menu

Select Surgery Package Management Menu Option: **SI** Surgery Interface
Management Menu (this option **requires** the SRCOORD security key!)

'Update Interface Parameter Field' Option name: SRHL PARAMETER

Synonym: P

This option may be used to edit the site parameter that determines which Surgery HL7 interface will be used, the interface compatible with VistA HL7 v1.9 or the older one compatible with VistA HL7 v1.9.

If applications communicating with the Surgery HL7 interface must use the interface designed for use with HL7 v1.9, enter YES. **Otherwise, enter NO or leave this field blank.**

Edit the Surgery Interface parameter field:

Select Surgery Interface Management Menu Option: **P** Update Interface Parameter Field

Use Surgery Interface Compatible with VISTA HL7 V. 1.5 (Y/N): **NO**

'Flag Interface Fields' Option name: SRHL INTERFACE FLDS Synonym: I
This option allows the package coordinator to set the INTERFACE field in the SURGERY INTERFACE file (#133.2). The categories listed on the first screen correspond to entries in File 133.2. These categories are listed in the Surgery Health Level 7 Interface Specifications document as being the OBR (Observation Request) text identifiers. Each identifier corresponds to several fields in the VistA Surgery package. This allows the user to control the flow of data between the VistA Surgery package and the ancillary system on a field by field basis.

Edit the Surgery Interface fields:

Select Surgery Interface Management Menu Option: **I** Flag Interface Fields

Surgery Interface Setup Menu

To change the setting in one of the following categories, enter the corresponding number.

(R - Receive)

(S - Send)

(S/R - Send and Receive) ← **If some fields are send and others receive, this is the setting**

(I - Ignore)

1. OPERATION (S) ← **All operation fields are set to S/R if not enter this multiple and set it**
2. TOURNIQUET (S)
3. MONITOR (S)
4. MEDICATION (S)
5. ANESTHESIA (S/R) ← **If some fields are used, set top level**
6. PROCEDURE (S)
7. PROCEDURE OCCURRENCE (S)
8. INTRAOPERATIVE OCCURRENCE (S)
9. POSTOPERATIVE OCCURRENCE (S)
10. NONOPERATIVE OCCURRENCE (S)

Enter a number: **1**

Do you wish to change the current setting of OPERATION: SEND// **S/R**

OPERATION DATA

Toggle the current setting to (R)eceive, (S)end, or (I)gnore.

- | | |
|-----------------------------|-------------------------|
| 1. TIME OPERATION BEGAN (S) | 18. ANESTHESIA TEMP (S) |
| 2. TIME OPERATION ENDS (S) | 19. HR (S) |
| 3. NURSE PRESENT TIME (S) | 20. RR (S) |

This sets all fields to 'S/R'

4. TIME PATIENT IN HOLDING AREA (S)	21. BP (S)
5. ANESTHESIA AVAILABLE TIME (S)	22. ASA CLASS (S)
6. TIME PATIENT IN OR (S)	23. CASE SCHEDULE TYPE (S)
7. SURGEON PRESENT TIME (S)	24. ATTENDING CODE (S)
8. ANESTHESIA CARE START TIME (S)	25. REPLACEMENT FLUID (S)
9. ANESTHESIA CARE END TIME (S)	26. INDUCTION COMPLETE (S)
10. TIME PATIENT OUT OR (S)	27. ANES. SUPERVISE CODE (S)
11. PRIN. ANES. (S)	28. SURGEON PGY (S)
12. RELIEF ANESTHETIST (S)	29. SURGEON (S)
13. ASSISTANT ANESTHETIST (S)	30. ATT. SURGEON (S)
14. ANES. SUPER. (S)	31. OR LOCATION (S)
15. BLOOD LOSS (S)	32. PAC(U) ADMIT TIME (S)
16. TOTAL URINE OUTPUT (S)	33. PAC(U) DISCHARGE TIME (S)
17. OR SETUP TIME (S)	

Enter a number:

All the fields in the above example are set to **(S)end** which is required for the interface to send. The SR applications will now send messages which can be subscribed to. Some fields will be set to **(R)eceive** if the ARK or ICU vendor product returns a value to VistA.

6. The following queued option should be set up. See the DSIH 1.9 technical manual for details on these options (or perform a Fileman inquire to the Option file).

DSIHH HL7 MESSAGE PURGE

DSIHH AUTO CHECK LINKS

DSIHH HL7 STATUS UPDATE

Select OPTION NAME: **XUTM MGR** Taskman Management
 Select Taskman Management Option: **SCH**edule/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: **SCH**edule/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: **SCH**edule/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

7. Add wards for HL7 message generation. An example of how to configure this field is shown below:

VAH,ROU>>D ^DI

VA FileMan 22.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

```

INPUT TO WHAT FILE: DSIH DATABRIDGE PARAMETERS// 19670 DSIH DATABRIDGE
PARAMETERS (1 entry)
EDIT WHICH FIELD: ALL// 7 ICU WARD NAMES (multiple)
    EDIT WHICH ICU WARD NAMES SUB-FIELD: ALL// .01 ICU WARD NAMES
    THEN EDIT ICU WARD NAMES SUB-FIELD:
THEN EDIT FIELD:

```

```

Select DSIH DATABRIDGE PARAMETERS SITE NAME: VAMC ALBANY NY VAMC 500
...OK? Yes// (Yes) **Just an example, enter your site here**

```

```

Select ICU WARD NAMES: ICU/CCU **Enter appropriate ward name for your site
here**

```

```

Are you adding 'ICU/CCU' as a new ICU WARD NAMES (the 1ST for this DSIH
DATABRIDGE PARAMETERS)? No// Y (Yes)

```

****If entering multiple ward names it is necessary to select your specific site name each time****

```

Select DSIH DATABRIDGE PARAMETERS SITE NAME: VAMC ALBANY NY VAMC 500
...OK? Yes// (Yes) **Just an example, enter your site here**

```

```

Select ICU WARD NAMES: ICU/CCU// SICU **Enter appropriate ward name for your
site here**

```

```

Are you adding 'SICU' as a new ICU WARD NAMES (the 2ND for this DSIH
DATABRIDGE
E PARAMETERS)? No// Y (Yes)

```

```

Select DSIH DATABRIDGE PARAMETERS SITE NAME:

```

Routine Summary

See DSIH_1_9_tm.pdf for the full Technical Manual for this build.

The following is a list of the routine(s) included in this build.

The second line of each routine will look as follows.

```
;;1.9;DATA BRIDGE;;May 30, 2013;Build 7
```

The after checksums are available for existing CIS-DATABRIDGE sites running DSIH 1.9. There is no Patch list since this is a full build and not a patch.

Routine	After Build
DSIHHA	93846346
DSIHHADT	65826109
DSIHHAL1	13024113
DSIHHAL2	2043942
DSIHHAPI	13131817
DSIHHAU	172234667
DSIHHBKO	93233053
DSIHHCLR	11180197

DSIHHCON	8558540
DSIHHDD	5468365
DSIHHDFN	9108970
DSIHHDO	114068647
DSIHHICU	4822166
DSIHHIN	1743351
DSIHHIN1	3049077
DSIHHL01	182240687
DSIHHL7P	5117662
DSIHHLAB	97653947
DSIHHLK	1586021
DSIHHLO	37645420
DSIHHLOT	117652823
DSIHHMON	5780494
DSIHHNO	69381353
DSIHHPID	25927010
DSIHHPS	24060772
DSIHHPS1	53544420
DSIHHPSB	22321420
DSIHHPST	149598831
DSIHHPV1	58184075
DSIHHRAD	29170472
DSIHHRO	18257187
DSIHHSI	1355365
DSIHHSIU	26379289
DSIHHSO	12573781
DSIHHSOD	6938896
DSIHHSR2	27731250
DSIHHSR3	14146511
DSIHHSR4	42388174
DSIHHSR5	45813707
DSIHHSRI	24225945
DSIHHSU	660608
DSIHHSUN	29976134
DSIHHT	37239738
DSIHHTO	13954898
DSIHHVI	1632294
DSIHHVI1	32679697
DSIHHVP	180519151
DSIHHVP2	153793256
DSIHHVTL	14010550
DSIHRPC	51860943
DSIHRPC2	146480782
DSIHRPC3	8222928
DSIHRPCG	31325418
DSIHSR01	4310029

SUPPORT CONTACT INFORMATION

HELP DESK (561) 284-7200

HOURS OF OPERATION 8:00 AM TO 7:00 PM (EST)

AFTER-HOURS SUPPORT (561) 284-7200 Option 1