



RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **IHS USER SECURITY AUDIT**

(BUSIA)

## **Installation Guide and Release Notes**

Version 1.0 Patch 3  
September 2020

Office of Information Technology  
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## Preface

The purpose of this manual is to provide the user with the information required to install the IHS USER SECURITY AUDIT (BUSA) application version 1.0 Patch 3.

## 1.0 Release Notes

The BUSA package is a utility which enables user activity to be tracked. As a requirement for Meaningful Use (MU) stage two certification, all activity relating to patient data querying, adding, editing, copying, deleting, and printing must be logged.

BUSA version 1.0 Patch 3 contains new functionality to enable sites to meet the additional requirements for 2015 Certified Health IT (CHIT) certification. This new functionality includes providing the ability to capture before and after changes in value of patient related information.

The Patch 3 release also contains new options to allow audited information stored in BUSA to be safely archived from the system and to allow that information to be reloaded for review.

The Web-enabled reporting interfaces included with Patch 3 also have been updated to provide additional filtering capabilities, additional report displays, and the ability to review archived information that has been reloaded for review.

## 2.0 Installation Notes

**Prefix:** BUSA

**Current Version:** 1.0

### 2.1 Contents of Distribution

Table 2-1: Distributed BUSA files and descriptions

File	Description
busa0100.03k	KIDS installation file
busa0100.03n	Installation notes
busa0100.03i.pdf	Patch 3 installation manual
busa0100.03u.pdf	Patch 3 user guide
busa0100.03t.pdf	Technical manual

### 2.2 Required Resources

The applications in Table 2-2 must be installed prior to attempting the BUSA v1.0 Patch 3 release installation.

Table 2-2: Required modules and minimum versions

Module	Minimum Version
BMW	V2020.3
BUSA	v1.0 Patch 2
Health Share	v2017.2.2
VA FileMan (DI)	v22.0 Patch 1020
IHS Kernel Toolkit (XT)	v7.3 through Patch 1019
VA Kernel (XU)	v8.0 Patch 1020

### 2.3 Before You Begin: Installation Issues

**Important:** Read the following section thoroughly before attempting to install the Patch 3 release. Failure to account for the situations presented could cause major issues, both in the patch installation and in system performance.

### 2.3.1 BMW v2020.3 Installation Verification

As noted in Section 2.2, to install the new BUSA application, the BMW v2020.3 or later release must be installed. As part of the BMW installation process, the BMW global must be properly mapped in the RPMS environment or the installation of the BUSA application will not be permitted to continue.

This mapping must have already been completed with the installation of the MU suite of applications. If this mapping has not been completed, please consult the *BMW CACHE.DAT Installation guide (version v2020.3)* for directions on how to map the BMW global.

### 2.3.2 BUSA Package – Disk Usage

Since the BUSA application logs user patient related activity, it is a very large consumer of disk space. With the release of Patch 3, functionality (BUSA FileMan Auditing) has been included that allows all changes to FileMan patient-related files and fields to be audited in FileMan auditing and also to be recorded as entries in BUSA.

CHIT requirements stipulate that this auditing feature be delivered to sites turned on. Having this functionality enabled has the capacity to rapidly fill up a site's database storage due to the vast amount of data being saved to the **FileMan AUDIT (#1.1)**, **BUSA AUDIT LOG SUMMARY (#9002319.01)** and **BUSA AUDIT LOG DETAIL (#9002319.02)** files.

Each site must assess whether their system can accommodate the extra storage required for BUSA FileMan Auditing and turn off that auditing feature if their system cannot handle the extra storage requirements. Sites that choose to turn off the BUSA FileMan Auditing must make a note to disable the functionality once Patch 3 has been installed. Section 5.0 provides instructions on how to turn off BUSA FileMan Auditing.

Prior to the Patch 3 installation, sites must determine whether their system has the capacity to handle the new storage requirements needed for BUSA FileMan Auditing.

With the BUSA version 1.0, release sites should already have developed a plan to account for the regular storage requirements of BUSA. One recommendation was to map the BUSA storage globals to their own Cache .DAT file(s). With the release of Patch 3, two new BUSA storage globals (^BUSASA and ^BUSADA) will be utilized to hold archived BUSA information that has been restored for further review. Sites should consider mapping these new globals to their own Cache .DAT file(s) as well. This step must be done prior to the installation of Patch 3. See the installation configuration instructions in Section 3.1 for more information on performing this action.

Sites must decide prior to the Patch 3 installation whether they want to map the two new BUSA storage globals to their own Cache .DAT files and perform the global mapping in advance of installation.

### 2.3.3 BUSA Package – Central Processing Unit (CPU) Capacity

The regular BUSA application programming interface (API) calls should not have a noticeable impact on the central processing unit (CPU) capacity. However, with the release of Patch 3, the BUSA FileMan Auditing functionality has the potential to put a severe strain on the CPU due to the processing requirements of saving so much additional information.

Prior to the installation of Patch 3, sites must determine whether their system can handle these additional processing requirements and decide in advance to turn off the new BUSA FileMan Auditing feature if they feel their system cannot handle the increased processing demands. Section 5.0 provides instructions on how to turn off BUSA FileMan Auditing.

Prior to the Patch 3 installation, sites must determine whether their system can handle the increased processing demands required by the BUSA FileMan Auditing functionality.

### 2.3.4 BUSA Reporting Tool – Authorized Users

The BUSA version 1.0 installation prompted the installer to enter a list of users who are approved to use the reporting tools included with this package. If it has been determined that since the original version 1.0 release that this list of approved users has changed, a ticket must be submitted for directions on how to add new reporting tool users or to remove existing users.

## 3.0 Installation Instructions

### 3.1 Pre-Installation Setup Configuration

As noted in Section 2.3.2, it is recommended that the BUSADA and BUSASA globals be placed in their own CACHE.DAT database file due to storage considerations.

The following instructions show how to create a database and map these globals to that database. The instructions show the process in HealthShare 2017.2. Previous versions use the same procedures, but the screen displays will be different.

**Note:** These instructions should be performed *before* installing BUSA version 1.0 Patch 3. If this was not done, then contact support for instructions on how to copy this data to the new database after it has been setup.

#### 3.1.1 Prerequisites

Before creating the database, locate a directory path on your server where there is sufficient storage available for the new database. Make sure that this directory path is included in your site's backup procedures so that this database is backed up on a regular basis. For the examples below, we will use **G:\Databases\Healthshare\9q1d\busaaf9q1d** as the directory path name.

Also, select a name for the new database, preferably one that includes "BUSA" and the RPMS namespace/database name with which it is associated. Since the data getting stored in this database is reloaded archive audit data, it is recommended that a naming convention derived from the original BUSA database be used.

For the examples below, the original RPMS namespace is **9q1d** and the original BUSA database created to hold audit data is **BUSAF9Q1D**. The name of the new database has therefore been set up to be **BUSAAF9Q1D**.

#### 3.1.2 Create a Database

1. Navigate to the Management Portal by selecting it from your list of Favorites in Internet Explorer, from a saved desktop icon, or by right-clicking the HealthShare icon in your Windows System Tray.
2. Select **Management Portal**. You are prompted to login to the portal.



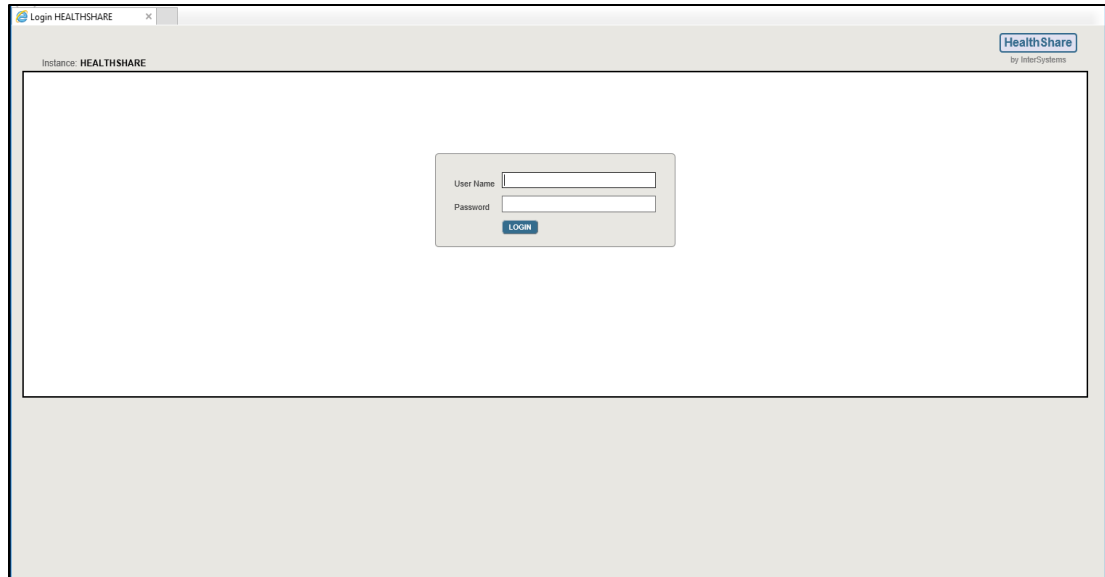


Figure 3-1: HealthShare login

3. Enter your **User Name** and **Password** and click **LOGIN**. The main Management Portal page should display.

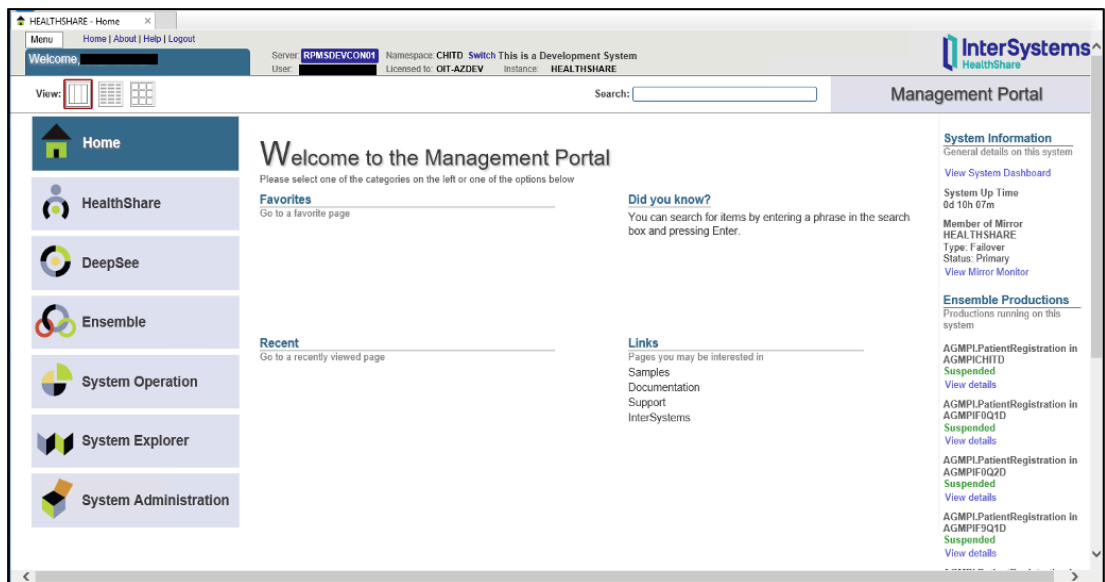


Figure 3-2: Main Management Portal page

4. Click the following in order:
  - a. **System Administration.**
  - b. **Configuration.**
  - c. **System Configuration**, as shown in Figure 3-3.

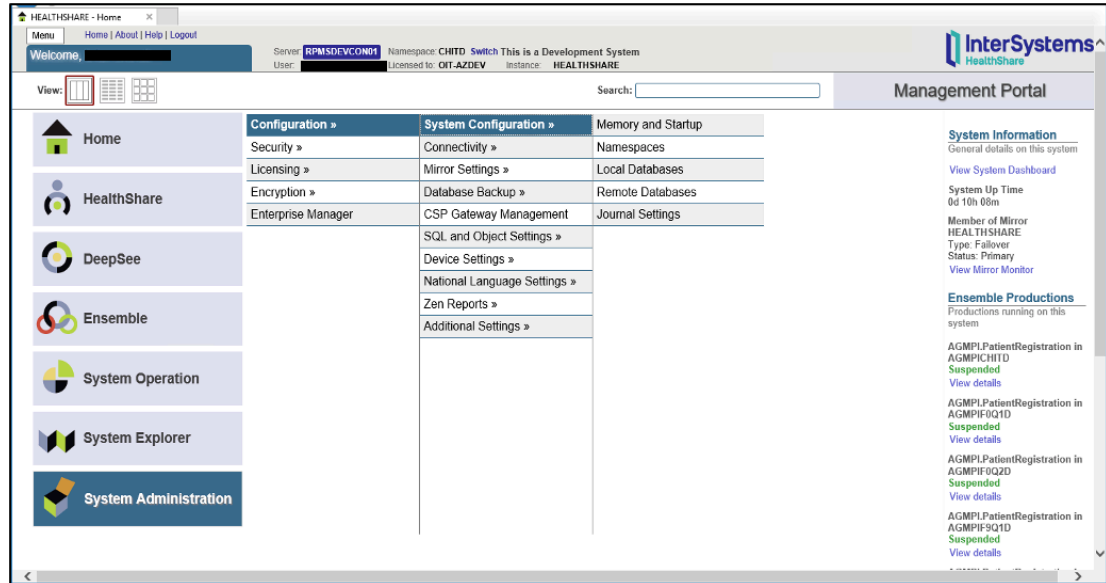


Figure 3-3: Navigate to System Administration, Configuration, and System Configuration

5. Click **Local Databases** (you may also need to click a **GO** button, if prompted). The Local Database Definitions page displays.

The following is a list of the local databases:

Name	Mirror	Directory	Size (MB)	Status	Resource	Encrypted	Journal
CACHESYS		e:\intersystems\healthshare\mgr\	170	Mounted/RW	%DB_CACHESYS	No	Yes - <a href="#">Global</a>
CACHELIB		e:\intersystems\healthshare\mgr\cache\lib\	500	Mounted/R	%DB_CACHELIB	No	No - <a href="#">Global</a>
CACHETEMP		e:\intersystems\healthshare\mgr\cache\templ\	240	Mounted/RW	%DB_CACHETEMP	No	No - <a href="#">Global</a>
CACHE		e:\intersystems\healthshare\mgr\cache\	21	Mounted/RW	%DB_CACHE	No	No - <a href="#">Global</a>
CACHEAUDIT		e:\intersystems\healthshare\mgr\cache\audit\	325	Mounted/RW	%DB_CACHEAUDIT	No	Yes - <a href="#">Global</a>
AGMPF901D	HEALTHSHARE	g:\databases\healthshare\chitd\agmpf901d\	50	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
AGMPF902D	HEALTHSHARE	g:\databases\healthshare\9q2d\agmpf902d\	50	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
AGMPF901D	HEALTHSHARE	g:\databases\healthshare\9q1d\agmpf901d\	20	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
AGMPF902D	HEALTHSHARE	g:\databases\healthshare\9q2d\agmpf902d\	50	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
BMWF901D		g:\databases\healthshare\9q1d\bmwf901d\	6096	Mounted/RW	%DB_%DEFAULT	No	Yes <a href="#">Delete</a> <a href="#">Global</a>
BMWF902D		g:\databases\healthshare\9q2d\bmwf902d\	3807	Mounted/RW	%DB_%DEFAULT	No	Yes <a href="#">Delete</a> <a href="#">Global</a>
BMWF901D		g:\databases\healthshare\9q1d\bmwf901d\	3807	Mounted/RW	%DB_%DEFAULT	No	Yes <a href="#">Delete</a> <a href="#">Global</a>
BMWF902D		g:\databases\healthshare\9q2d\bmwf902d\	3384	Mounted/RW	%DB_%DEFAULT	No	Yes <a href="#">Delete</a> <a href="#">Global</a>
BUSACHITD	HEALTHSHARE	g:\databases\healthshare\chitd\busachitd\	6739	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
BUSACHITDQ		g:\databases\healthshare\chitd\busachitd\q\	4698	Mounted/RW	%DB_%DEFAULT	No	No <a href="#">Delete</a> <a href="#">Global</a>
BUSAF901D	HEALTHSHARE	g:\databases\healthshare\9q1d\busaf901d\	80	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
BUSAF902D	HEALTHSHARE	g:\databases\healthshare\9q2d\busaf902d\	80	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
BUSAF901D	HEALTHSHARE	g:\databases\healthshare\9q1d\busaf901d\	30	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
BUSAF902D	HEALTHSHARE	g:\databases\healthshare\9q2d\busaf902d\	80	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
C32CHITD		g:\databases\healthshare\chitd\c32chitd\	159	Mounted/RW	%DB_%DEFAULT	No	No <a href="#">Delete</a> <a href="#">Global</a>
C32F901D		g:\databases\healthshare\9q1d\c32f901d\	159	Mounted/RW	%DB_%DEFAULT	No	No <a href="#">Delete</a> <a href="#">Global</a>
C32F902D		g:\databases\healthshare\9q2d\c32f902d\	159	Mounted/RW	%DB_%DEFAULT	No	No <a href="#">Delete</a> <a href="#">Global</a>
C32F901D		g:\databases\healthshare\9q1d\c32f901d\	159	Mounted/RW	%DB_%DEFAULT	No	No <a href="#">Delete</a> <a href="#">Global</a>
C32F902D		g:\databases\healthshare\9q2d\c32f902d\	159	Mounted/RW	%DB_%DEFAULT	No	No <a href="#">Delete</a> <a href="#">Global</a>
CCDAF901D	HEALTHSHARE	g:\databases\healthshare\9q1d\ccdaf901d\	1461	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
CCDAF902D	HEALTHSHARE	g:\databases\healthshare\9q2d\ccdaf902d\	142	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
CCDAF901D	HEALTHSHARE	g:\databases\healthshare\9q1d\ccdaf901d\	159	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
CCDAF902D	HEALTHSHARE	g:\databases\healthshare\9q2d\ccdaf902d\	127	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
CHITD	HEALTHSHARE	f:\databases\healthshare\chitd\	17904	Mounted/RW	%DB_%DEFAULT	No	Yes - <a href="#">Global</a>
CHITDQ		f:\databases\healthshare\chitd\q\	16464	Mounted/RW	%DB_%DEFAULT	No	No <a href="#">Delete</a> <a href="#">Global</a>
CHITDNJ		g:\databases\healthshare\chitd\chitdnj\	722	Mounted/RW	%DB_%DEFAULT	No	Yes <a href="#">Delete</a> <a href="#">Global</a>

Figure 3-4: Sample local database definitions page

- Click the **Create New Database** link to bring up the database creation wizard.

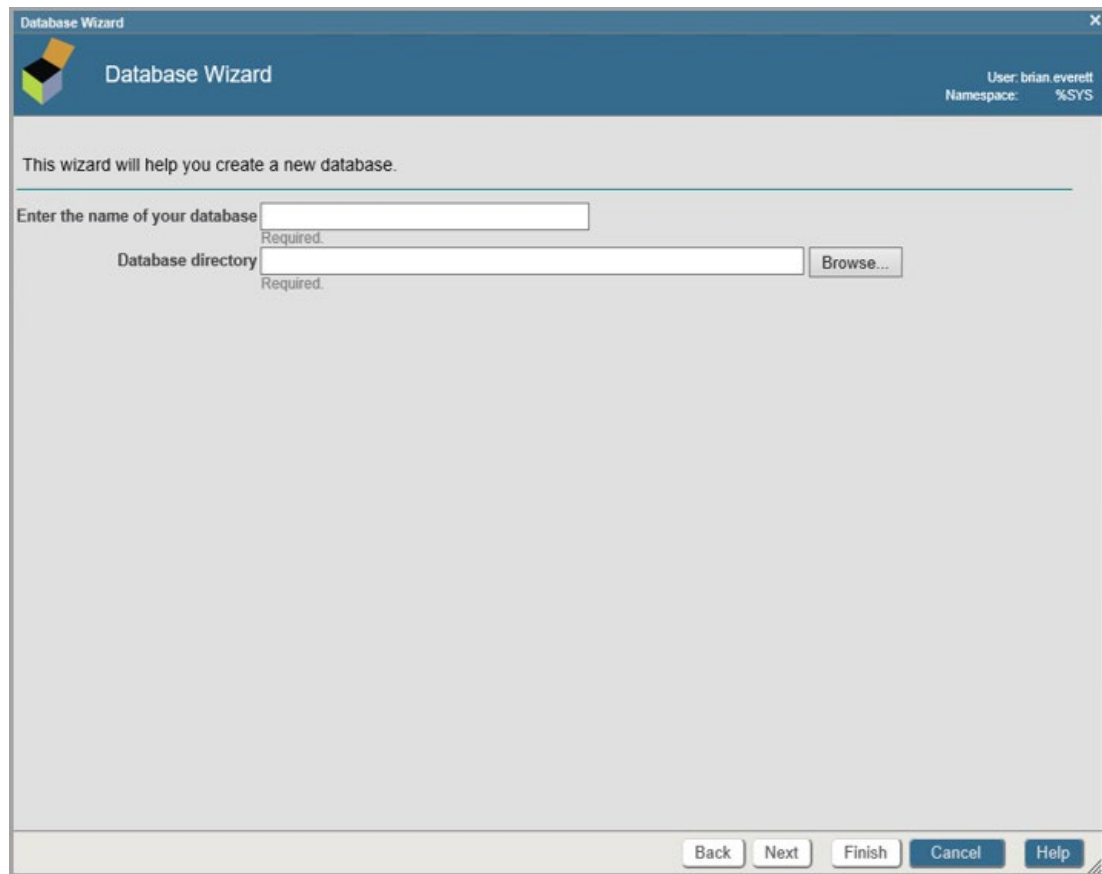


Figure 3-5: New Database Wizard

7. Enter the name of your database and either directly enter or browse for the directory (both items were described in the previous section).

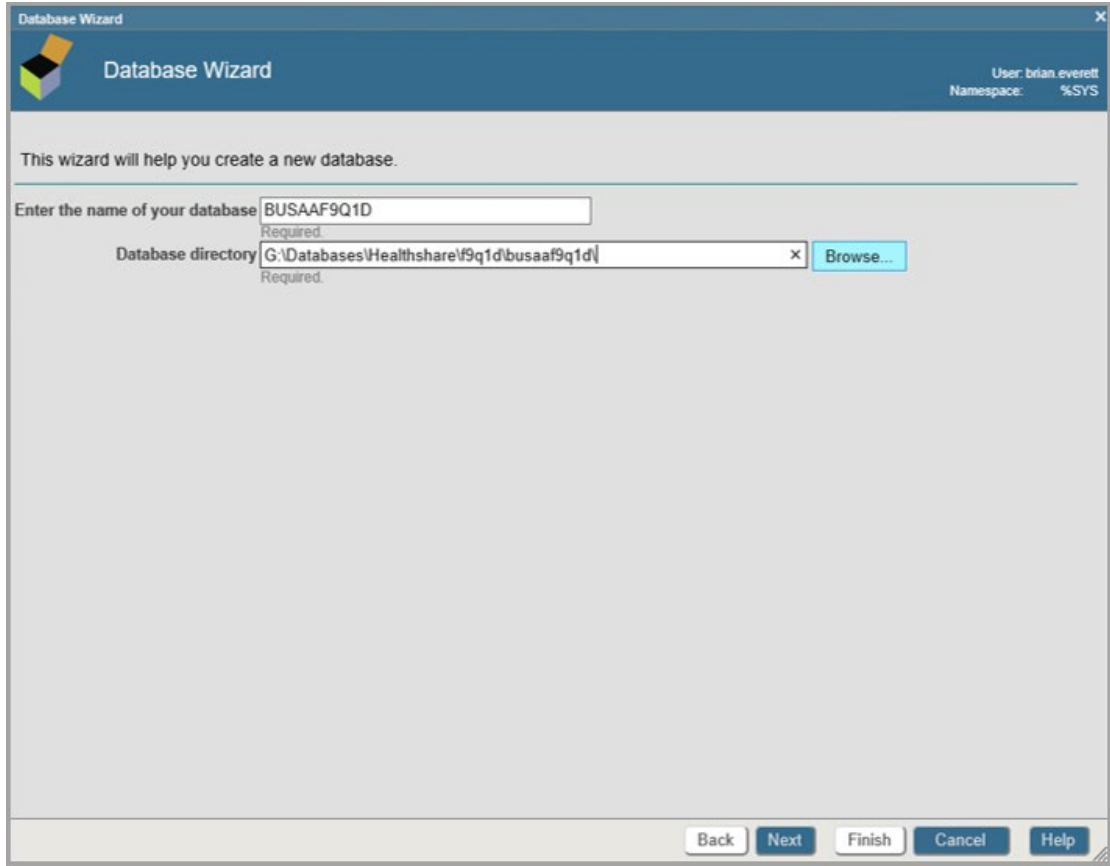


Figure 3-6: Sample new database settings

8. Click **Next** to open additional database detail settings.

The screenshot shows the 'Database Wizard' window with the following settings:

- Initial Size (MB):** 10 (Text input field)
- Block size for this database will be:** 8KB (Dropdown menu)
- Journal globals?:** Yes (Dropdown menu)
- Encrypt database?:** No (Dropdown menu)
- Mirrored database?:** Yes (Dropdown menu)
- Mirror DB Name:** BUSAAF9Q1D (Text input field)

Navigation buttons at the bottom: Back, Next, Finish, Cancel, Help.

Figure 3-7: Additional Database Settings

9. Set the **Initial Size** to at least 10 (as shown). Larger sites with significant numbers of patients and visits may want to start with 100 or more.
10. Click **Finish**. The new database should be visible in the list.



The following is a list of the local databases:

Name	Mirror	Directory	Size (MB)	Status	Resource	Encrypted	Journal	
CACHESYS		e:\intersystems\healthshare\mgr\	170	Mounted/RW	%DB_CACHESYS	No	Yes	- <a href="#">Globals</a>
CACHELIB		e:\intersystems\healthshare\mgr\cache\lib\	500	Mounted/R	%DB_CACHELIB	No	No	- <a href="#">Globals</a>
CACHETEMP		e:\intersystems\healthshare\mgr\cachetemp\	240	Mounted/RW	%DB_CACHETEMP	No	No	- <a href="#">Globals</a>
CACHE		e:\intersystems\healthshare\mgr\cache\	21	Mounted/RW	%DB_CACHE	No	No	- <a href="#">Globals</a>
CACHEAUDIT		e:\intersystems\healthshare\mgr\cache\audit\	325	Mounted/RW	%DB_CACHEAUDIT	No	Yes	- <a href="#">Globals</a>
AGMPICHITD	HEALTHSHARE	g:\databases\healthshare\chitd\agmpichitd\	50	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
AGMPIF9Q1D	HEALTHSHARE	g:\databases\healthshare\f9q1d\agmpif9q1d\	50	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
AGMPIF9Q2D	HEALTHSHARE	g:\databases\healthshare\f9q2d\agmpif9q2d\	50	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
AGMPIF9Q1D	HEALTHSHARE	g:\databases\healthshare\f9q1d\agmpif9q1d\	20	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
AGMPIF9Q2D	HEALTHSHARE	g:\databases\healthshare\f9q2d\agmpif9q2d\	50	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
BMWCHITD		g:\databases\healthshare\chitd\bmwchitd\	6096	Mounted/RW	%DB_%DEFAULT	No	Yes	<a href="#">Delete</a> <a href="#">Globals</a>
BMWF9Q1D		g:\databases\healthshare\f9q1d\bmwf9q1d\	3807	Mounted/RW	%DB_%DEFAULT	No	Yes	<a href="#">Delete</a> <a href="#">Globals</a>
BMWF9Q2D		g:\databases\healthshare\f9q2d\bmwf9q2d\	3807	Mounted/RW	%DB_%DEFAULT	No	Yes	<a href="#">Delete</a> <a href="#">Globals</a>
BMWF9Q1D		g:\databases\healthshare\f9q1d\bmwf9q1d\	3384	Mounted/RW	%DB_%DEFAULT	No	Yes	<a href="#">Delete</a> <a href="#">Globals</a>
BMWF9Q2D		g:\databases\healthshare\f9q2d\bmwf9q2d\	3807	Mounted/RW	%DB_%DEFAULT	No	Yes	<a href="#">Delete</a> <a href="#">Globals</a>
BUSAAF9Q1D	HEALTHSHARE	g:\databases\healthshare\f9q1d\busaaf9q1d\	10	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
BUSACHITD	HEALTHSHARE	g:\databases\healthshare\chitd\busachitd\	6739	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
BUSACHITDG		g:\databases\healthshare\chitd\busachitdg\	4698	Mounted/RW	%DB_%DEFAULT	No	No	<a href="#">Delete</a> <a href="#">Globals</a>
BUSAF9Q1D	HEALTHSHARE	g:\databases\healthshare\f9q1d\busaf9q1d\	80	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
BUSAF9Q2D	HEALTHSHARE	g:\databases\healthshare\f9q2d\busaf9q2d\	80	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
BUSAF9Q1D	HEALTHSHARE	g:\databases\healthshare\f9q1d\busaf9q1d\	30	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
BUSAF9Q2D	HEALTHSHARE	g:\databases\healthshare\f9q2d\busaf9q2d\	80	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
C32CHITD		g:\databases\healthshare\chitd\c32chitd\	159	Mounted/RW	%DB_%DEFAULT	No	No	<a href="#">Delete</a> <a href="#">Globals</a>
C32F9Q1D		g:\databases\healthshare\f9q1d\c32f9q1d\	159	Mounted/RW	%DB_%DEFAULT	No	No	<a href="#">Delete</a> <a href="#">Globals</a>
C32F9Q2D		g:\databases\healthshare\f9q2d\c32f9q2d\	159	Mounted/RW	%DB_%DEFAULT	No	No	<a href="#">Delete</a> <a href="#">Globals</a>
C32F9Q1D		g:\databases\healthshare\f9q1d\c32f9q1d\	159	Mounted/RW	%DB_%DEFAULT	No	No	<a href="#">Delete</a> <a href="#">Globals</a>
C32F9Q2D		g:\databases\healthshare\f9q2d\c32f9q2d\	159	Mounted/RW	%DB_%DEFAULT	No	No	<a href="#">Delete</a> <a href="#">Globals</a>
CCDACHITD	HEALTHSHARE	g:\databases\healthshare\chitd\ccdachitd\	1461	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
CCDAF9Q1D	HEALTHSHARE	g:\databases\healthshare\f9q1d\ccdaf9q1d\	142	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
CCDAF9Q2D	HEALTHSHARE	g:\databases\healthshare\f9q2d\ccdaf9q2d\	159	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
CCDAF9Q1D	HEALTHSHARE	g:\databases\healthshare\f9q1d\ccdaf9q1d\	127	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
CCDAF9Q2D	HEALTHSHARE	g:\databases\healthshare\f9q2d\ccdaf9q2d\	127	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
CHITD	HEALTHSHARE	f:\databases\healthshare\chitd\	17904	Mounted/RW	%DB_%DEFAULT	No	Yes	- <a href="#">Globals</a>
CHITDG		f:\databases\healthshare\chitdg\	16464	Mounted/RW	%DB_%DEFAULT	No	No	<a href="#">Delete</a> <a href="#">Globals</a>

Figure 3-8: Database listing showing the new database

This completes the steps for creating a database.

### 3.1.3 Map the BUSA Globals to the New Database

1. Continuing from the previous section, click **Home** to return to the home page.

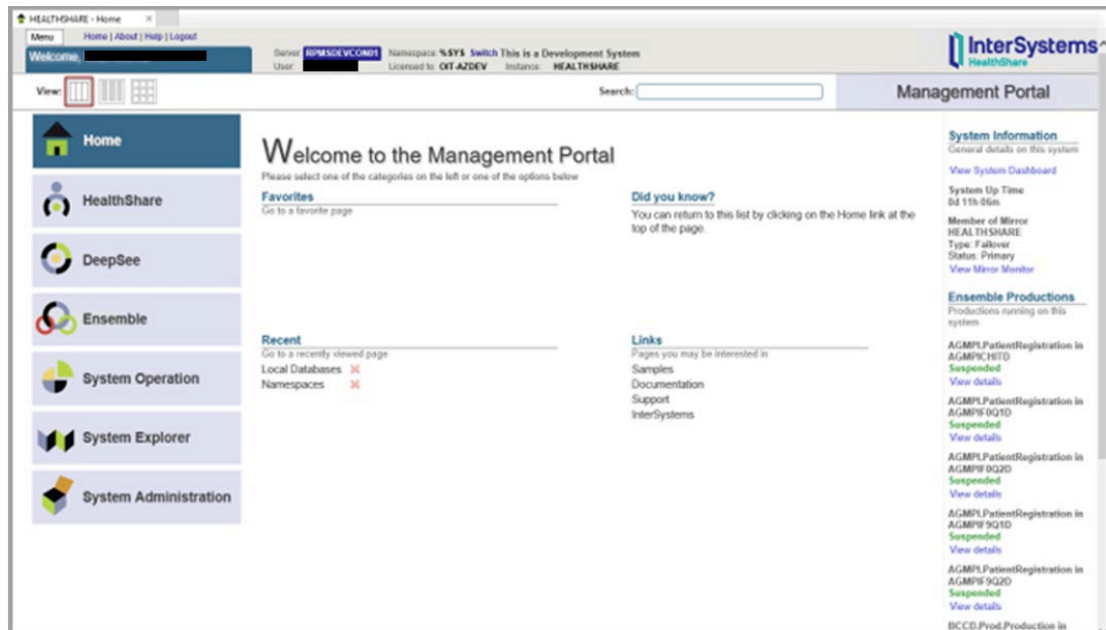


Figure 3-9: View of the Management Portal main page

2. Click the following in order:
  - a. **System Administration.**
  - b. **Configuration.**
  - c. **System Configuration.**

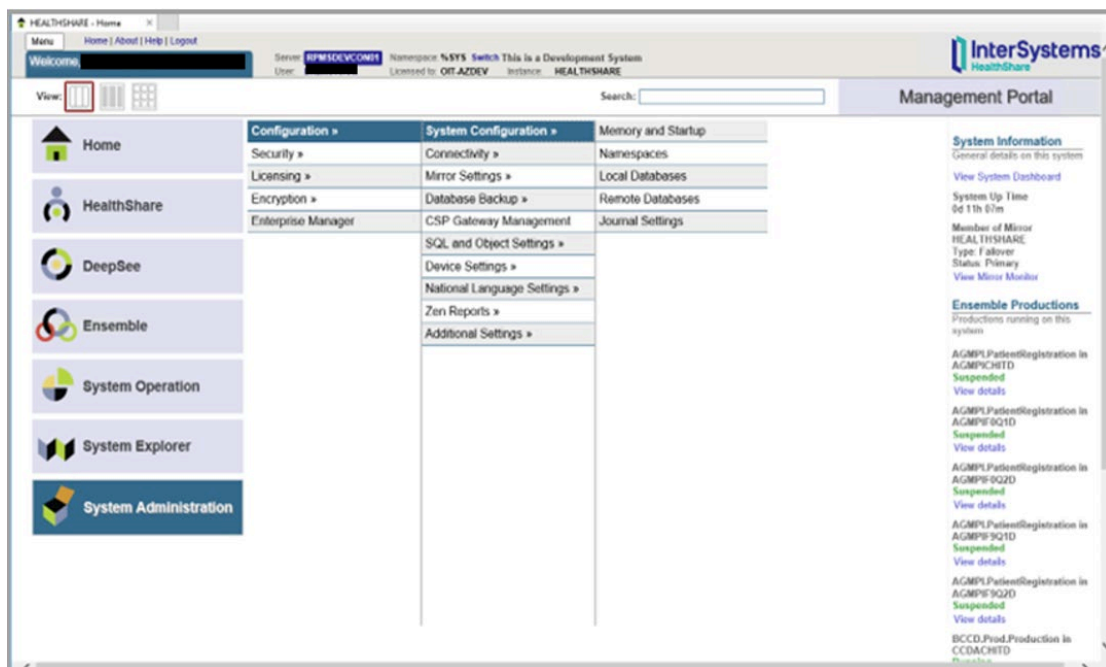
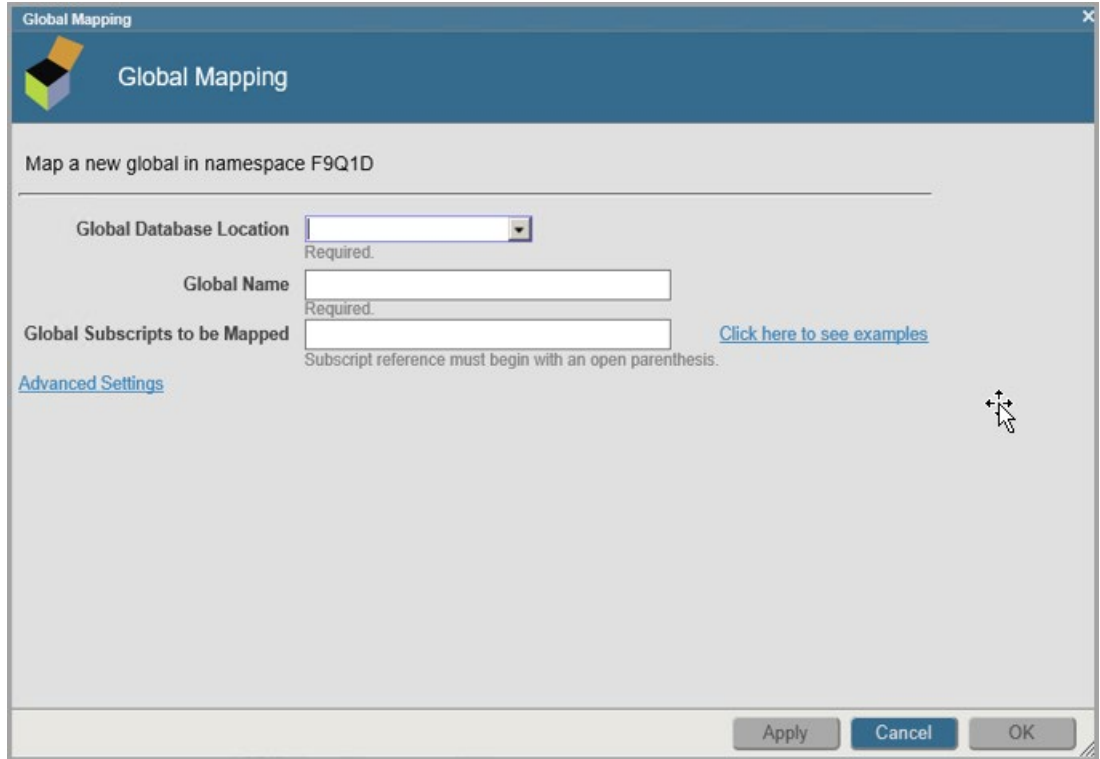


Figure 3-10: Selecting System Administration, Configuration, and System Configuration





5. Scroll down and confirm there are already mappings in place for the BUSAS and BUSAD globals. If there are no mappings present, check with support before proceeding.
6. Click **New Global Mapping** to bring up the global mapping wizard.



Global Mapping

Map a new global in namespace F9Q1D

Global Database Location  Required.

Global Name  Required.

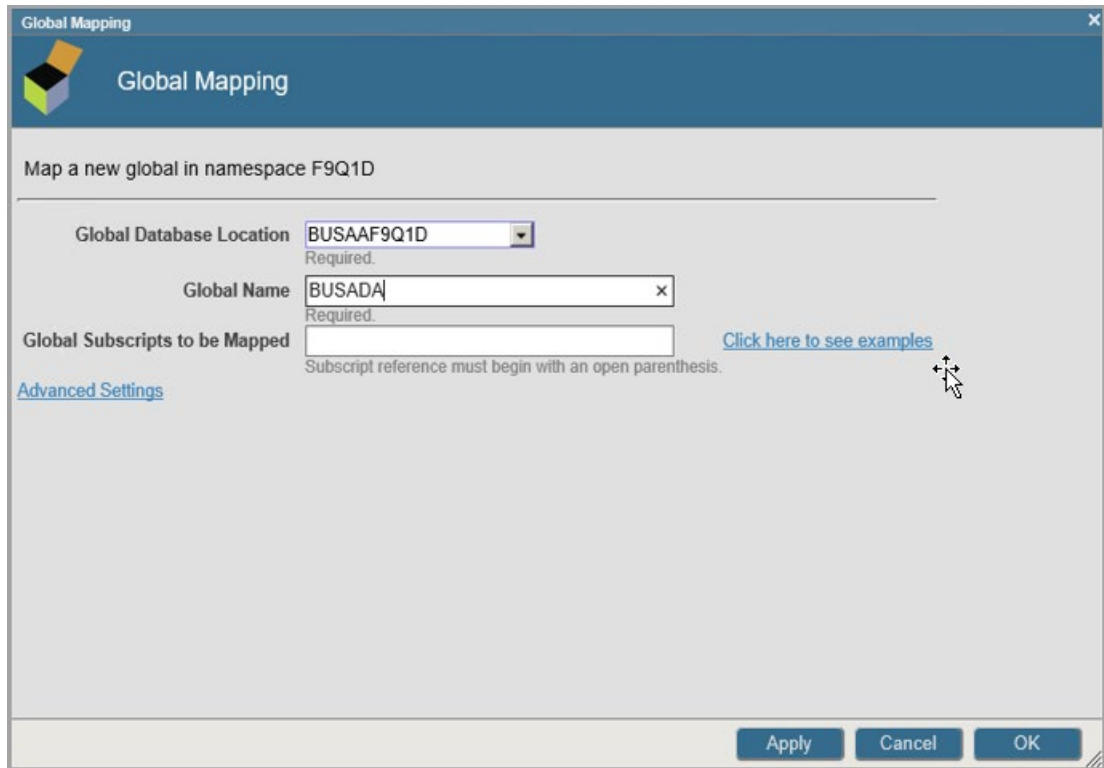
Global Subscripts to be Mapped  [Click here to see examples](#)  
Subscript reference must begin with an open parenthesis.

[Advanced Settings](#)

Apply Cancel OK

Figure 3-13: **Global Mapping** Wizard

7. In the **Global database location** list, select the database created in the previous section.
8. In the **Global name** field, type **BUSADA**.



Global Mapping

Map a new global in namespace F9Q1D

Global Database Location BUSAAF9Q1D  
Required.

Global Name BUSADA  
Required.

Global Subscripts to be Mapped  
Subscript reference must begin with an open parenthesis.

[Click here to see examples](#)

[Advanced Settings](#)

Apply Cancel OK

Figure 3-14: Sample Global Mapping settings – map BUSADA

9. Click **Apply**. (Note that the changes have not yet been saved.)
10. Change the Global name to **BUSASA**.

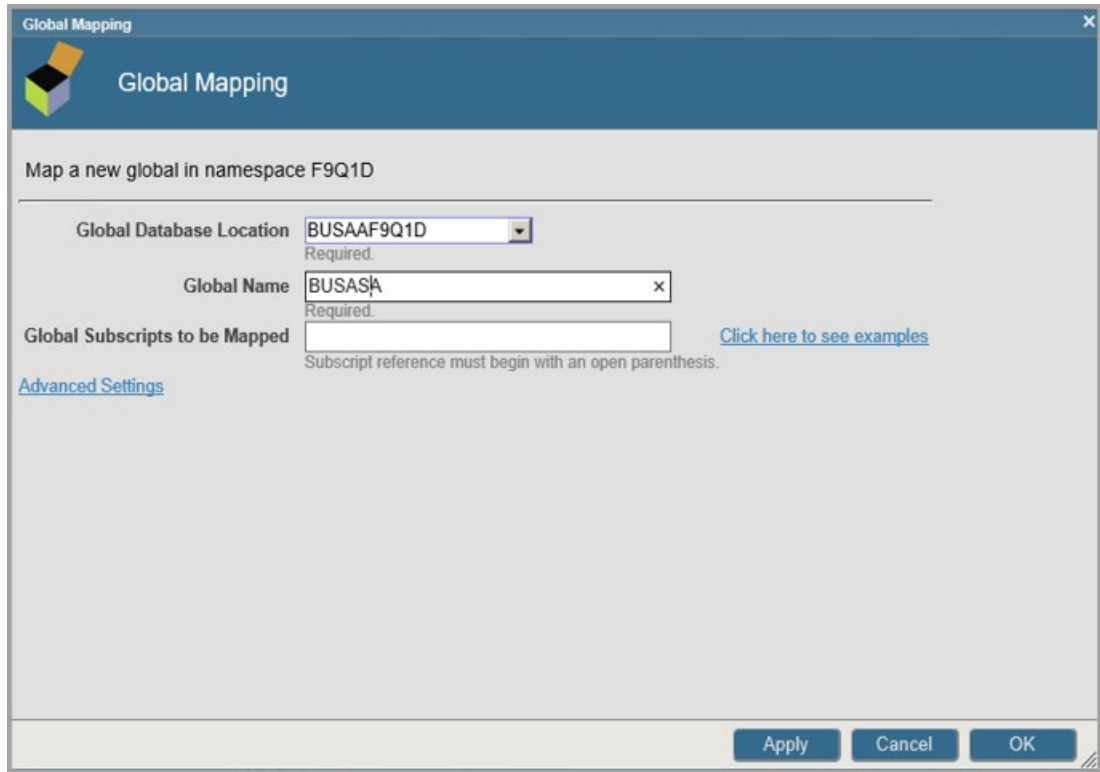


Figure 3-15: Sample Global Mapping settings – map BUSASA

11. Click **OK**. (Note that the changes have not yet been saved.)

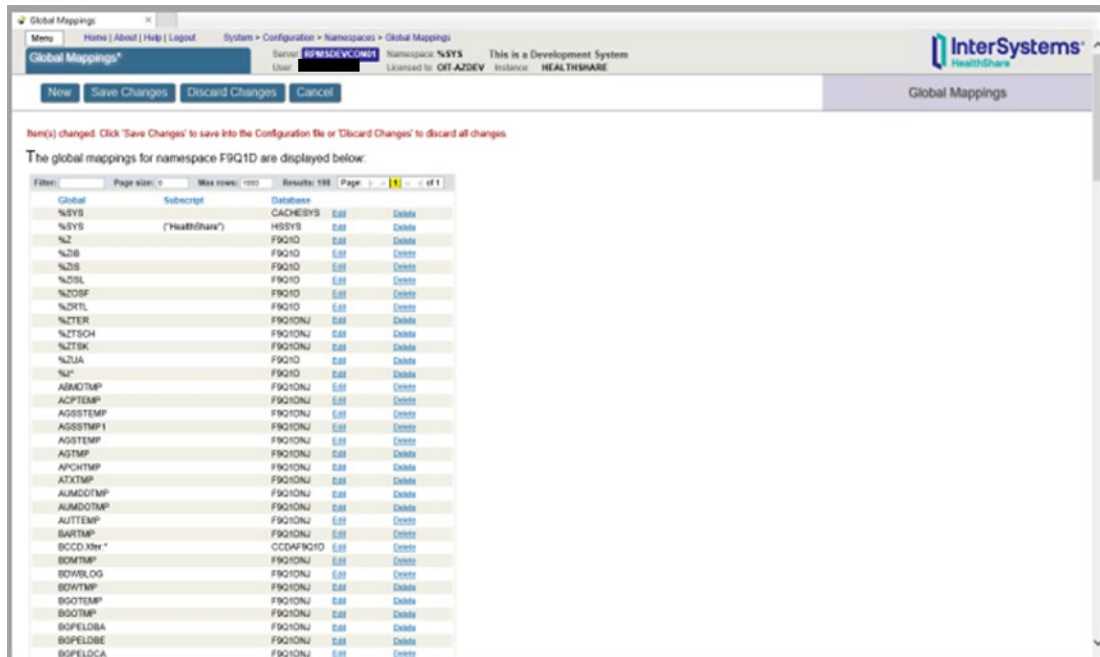
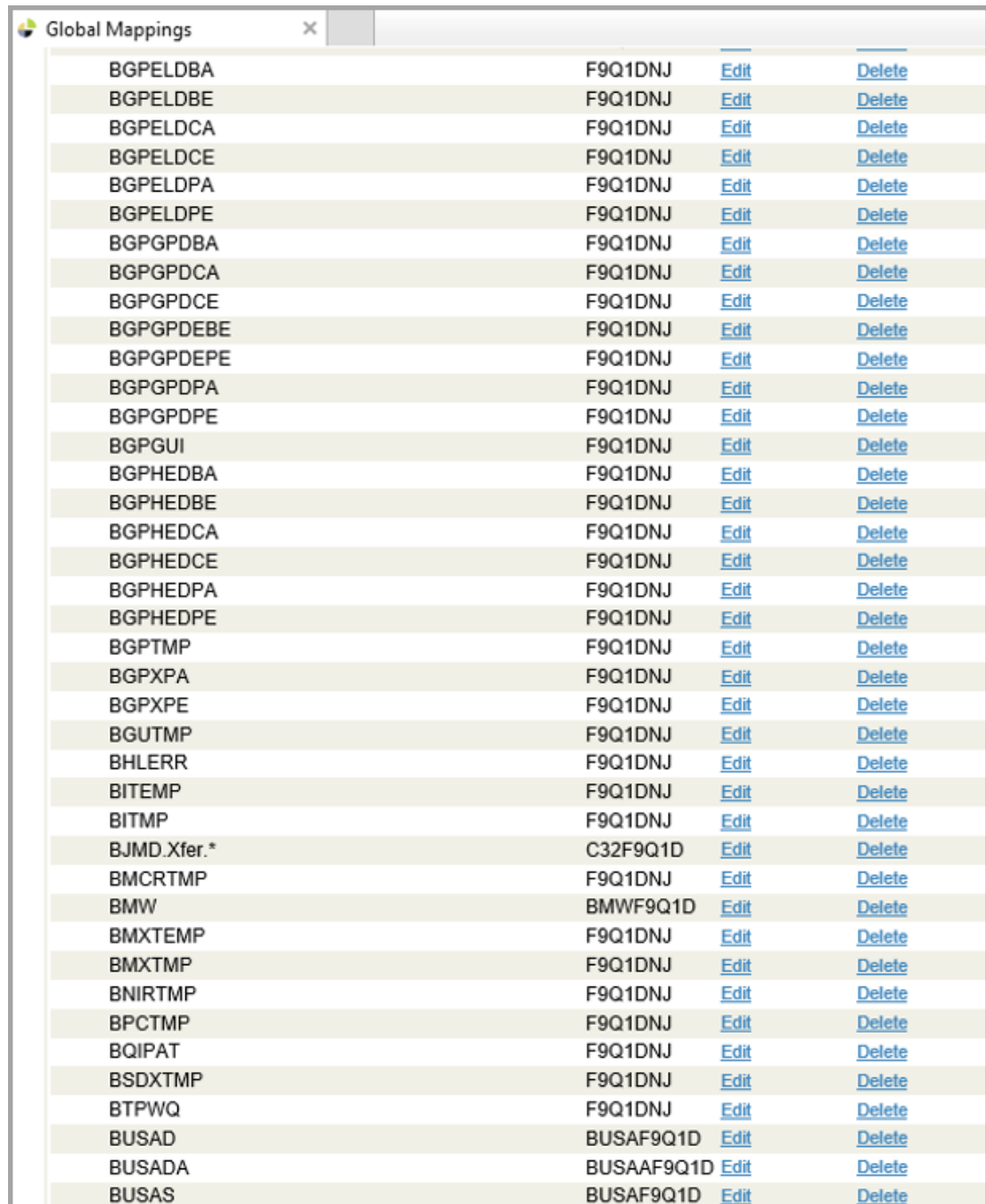


Figure 3-16: **Global Mappings** display – unsaved changes

12. Click **Save Changes**. The new mappings should be visible in the list. You may need to scroll down to locate them. See Figure 3-17 for display of new mappings.



Global Mapping	Target	Edit	Delete
BGPELDBA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPELDBE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPELDCA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPELDCE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPELDPA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPELDPE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGPDBA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGPDCA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGPDCE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGPDEBE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGPDEPE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGPDPA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGPDPE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPGUI	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPHEDBA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPHEDBE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPHEDCA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPHEDCE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPHEDPA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPHEDPE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPTMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPXPA	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGPXPE	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BGUTMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BHLERR	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BITEMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BITMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BJMD.Xfer.*	C32F9Q1D	<a href="#">Edit</a>	<a href="#">Delete</a>
BMCRTMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BMW	BMWF9Q1D	<a href="#">Edit</a>	<a href="#">Delete</a>
BMXTEMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BMXTMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BNIRTMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BPCTMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BQIPAT	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BSDXTMP	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BTPWQ	F9Q1DNJ	<a href="#">Edit</a>	<a href="#">Delete</a>
BUSAD	BUSAF9Q1D	<a href="#">Edit</a>	<a href="#">Delete</a>
BUSADA	BUSAAF9Q1D	<a href="#">Edit</a>	<a href="#">Delete</a>
BUSAS	BUSAF9Q1D	<a href="#">Edit</a>	<a href="#">Delete</a>

Figure 3-17: Display of new global mappings

13. This completes the steps for mapping the globals.

## 3.2 Confirm Access to the BUSA SECURITY EDIT Option

As part of the Patch 3 installation, the site might choose to turn off the new BUSA FileMan Audit switch. Prior to the installation of the patch, the install user should confirm that they can access the **BUSA SECURITY EDIT** option in the event they decide to turn off the switch.

If the user cannot access the option, please review the following steps for guidance:

1. Confirm (or assign) the BUSAZMGR security key.

```
Select IHS Kernel <TEST ACCOUNT> option: ^allocation of security keys
Allocate key: BUSAZMGR
Another key:
Holder of key: ADAM,ADAM      AA      119      SYSTEMS ANALYST
Another holder:
You've selected the following keys:
BUSAZMGR
You've selected the following holders:
ADAM,ADAM
You are allocating keys.  Do you wish to proceed? YES//
BUSAZMGR being assigned to:
      ADAM,ADAM      person already holds key - no action taken
```

Figure 3-18: Assign/confirm BUSAZMGR security key

2. Give the user quick access to the **BUSA SECURITY EDIT** option by adding the option as a secondary menu option in in User Management.
3. In the **Edit an Existing User** option, select the user and enter **BUSA SECURITY EDIT** as a new secondary menu option.

```
PRIMARY MENU OPTION: AKMOEVE
Select SECONDARY MENU OPTIONS: BUSA SE
want to edit ACCESS CODE (Y/N): FILE MANAGER ACCESS CODE: @
want to edit VERIFY CODE (Y/N):

Select DIVISION: 2016 DEMO HOSPITAL
_SERVICE/SECTION: MEDICINE

CURITY EDIT      Edit Security Audit
Are you adding 'BUSA SECURITY EDIT' as
a new SECONDARY MENU OPTIONS (the 8TH for this NEW PERSON)? No//
```

Figure 3-19: Assign BUSA SECURITY EDIT as a secondary menu option

- a. Enter a synonym so the option can be easily selected.



Figure 3-20: Enter a synonym for the new secondary menu

- b. Save the changes.
- c. In RPMS verify that the option can be now accessed.

```

Select IHS Kernel <TEST ACCOUNT> Option: 1 Core Applications

  ABM   Third Party Billing System ...
  ADT   ADT Menu ...
  AG    Patient registration ...
  ALL   Adverse Reaction Tracking ...
  AMER  Emergency Room System ...
  AMH   Behavioral Health Information System ...
  ANS   Nursing Acuity System ...
  AQAO  QAI MANAGEMENT System Menu ...
  ATX   Taxonomy System ...
  AWAY  REMOTE LOGIN USER MENU ...
  BAR   A/R MASTER MENU ...
  BCSV  CSV UPDATE MAIN MENU ...
  BDP   Designated Specialty Prov Mgt System ...
  BDW   Data Warehouse Export Menu ...
  BGP   IHS Clinical Reporting System (CRS) Main Menu ...
  BILL  Business Office Master Menu ...
  BPM   IHS Patient Merge ...
  BVP   View Patient Record
  BW    women's Health Menu ...
  BYIM  Immunization Interchange Management Menu ...
  CASE  Case Management System ...
  CD    Chemical Dependency Menu ...

          Press 'RETURN' to continue, '^' to stop: ^

You have PENDING ALERTS
Enter "VA to jump to VIEW ALERTS option

Select Core Applications <TEST ACCOUNT> Option: ^BSEC Edit security Audit
Current Security Audit Settings:
  Master      Status:      On
              Date Logged:  AUG 06, 2020@10:17:58
              User Logged:  ADAM,ADAM
  BMXNet      Status:      On
              Date Logged:  AUG 06, 2020@10:18:06
              User Logged:  ADAM,ADAM
  CIA Broker  Status:      On
              Date Logged:  AUG 06, 2020@10:18:14
              User Logged:  ADAM,ADAM
  XWB Broker  Status:      On
              Date Logged:  AUG 06, 2020@10:18:26
              User Logged:  ADAM,ADAM

  select one of the following:

      M      Master
      B      BMXNet
      C      CIA Broker
      W      XWB Broker

select switch:

```

Figure 3-21 Check for access to BUSA SECURITY EDIT option

## 4.0 Sample Installations

The BUSA version 1.0 Patch 3 release is a standard Kernel Installation and Distribution System (KIDS) build. As part of the installation process a post installation step will run, which will turn on BUSA and FileMan Auditing of all patient related information.

The patch should first be installed in a test account. The sample installation below shows the checksums of the routines included in the build.

Once it is confirmed that the patch installed successfully in the test system, the site can schedule a time to install in their production environment. When installing the build, all users should be off of the system to avoid any interruptions and issues with routines and files in the release being accessed during the installation.

After installation and prior to allowing users back onto the system, if the site has determined that they would like to turn off the BUSA FileMan Auditing, the site should turn off that link. See Section 5.0 for instructions on how to disable this link.

### 4.1 Sample Cache Install

```

          I N S T A L L A T I O N   E X A M P L E

1)  1  Load a Distribution

Select OPTION NAME: XPD MAIN           Kernel Installation & Distribution System

      Edits and Distribution ...
      Utilities ...
      Installation ...
      Patch Monitor Main Menu ...

You have PENDING ALERTS
      Enter "VA to jump to VIEW ALERTS option

Select Kernel Installation & Distribution System <TEST ACCOUNT> Option:
Installation

      1      Load a Distribution
      2      Verify Checksums in Transport Global
      3      Print Transport Global
      4      Compare Transport Global to Current System
      5      Backup a Transport Global
      6      Install Package(s)
           Restart Install of Package(s)
           Unload a Distribution

You have PENDING ALERTS

```



```

Enter "VA to jump to VIEW ALERTS option

Select Installation <TEST ACCOUNT> Option: 1 Load a Distribution
Enter a Host File: D:\RPMS\busa0100.03k

KIDS Distribution saved on Aug 05, 2020@16:01:15
Comment: BUSA*1.0*3

This Distribution contains Transport Globals for the following Package(s):
  BUSA*1.0*3
Distribution OK!

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

Build BUSA*1.0*3 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES//
  BUSA*1.0*3
Will first run the Environment Check Routine, BUSA1P03

          BMW version 2.39 installed - *PASS*

          Health Share v2017.2.2 or greater has been installed - *PASS*
          Patch "XU*8.0*1020" is installed - *PASS*
          Patch "DI*22.0*1020" is installed - *PASS*
          Patch "XT*7.3*1019" is installed - *PASS*
          Patch "BUSA*1.0*2" is installed - *PASS*
Use INSTALL NAME: BUSA*1.0*3 to install this Distribution.

1      Load a Distribution
2      Verify Checksums in Transport Global
3      Print Transport Global
4      Compare Transport Global to Current System
5      Backup a Transport Global
6      Install Package(s)
       Restart Install of Package(s)
       Unload a Distribution

You have PENDING ALERTS
Enter "VA to jump to VIEW ALERTS option

Select Installation <TEST ACCOUNT> Option: 2 Verify Checksums in Transport Glob
al
Select INSTALL NAME:      BUSA*1.0*3      Loaded from Distribution      8/5/20@16:05:
40
=> BUSA*1.0*3 ;Created on Aug 05, 2020@16:01:15

This Distribution was loaded on Aug 05, 2020@16:05:40 with header of
  BUSA*1.0*3 ;Created on Aug 05, 2020@16:01:15
It consisted of the following Install(s):
  BUSA*1.0*3

Want each Routine Listed with Checksums: Yes//  YES

```

DEVICE: HOME// VIRTUAL

PACKAGE: BUSA\*1.0\*3 Aug 05, 2020 4:05 pm

PAGE 1

```
-----
BUSA1P03 Calculated 12425298
BUSAACVR Calculated 6456609
BUSAAPI Calculated 90733158
BUSAARAI Calculated 93398105
BUSAARLA Calculated 216027410
BUSAARO Calculated 165200692
BUSAARPA Calculated 93327898
BUSAARPU Calculated 98242893
BUSAARRP Calculated 43559456
BUSAARST Calculated 168752080
BUSAARVA Calculated 154961896
BUSAAUT Calculated 20314346
BUSAOPT Calculated 35829369
BUSARPC Calculated 118084548
BUSASWCH Calculated 36170547
BUSAUTL1 Calculated 6564214
```

PACKAGE: BUSA\*1.0\*3 Aug 05, 2020 4:05 pm

PAGE 2

-----

16 Routines checked, 0 failed.

- 1 Load a Distribution
  - 2 Verify Checksums in Transport Global
  - 3 Print Transport Global
  - 4 Compare Transport Global to Current System
  - 5 Backup a Transport Global
  - 6 Install Package(s)
- Restart Install of Package(s)
- Unload a Distribution

You have PENDING ALERTS

Enter "VA to jump to VIEW ALERTS option

Select Installation <TEST ACCOUNT> Option: 6 Install Package(s)

Select INSTALL NAME: BUSA\*1.0\*3 Loaded from Distribution 8/5/20@16:05:

40

=> BUSA\*1.0\*3 ;Created on Aug 05, 2020@16:01:15

This Distribution was loaded on Aug 05, 2020@16:05:40 with header of

BUSA\*1.0\*3 ;Created on Aug 05, 2020@16:01:15

It consisted of the following Install(s):

BUSA\*1.0\*3

Checking Install for Package BUSA\*1.0\*3

Will first run the Environment Check Routine, BUSA1P03

```
BMW version 2.39 installed - *PASS*

Health Share v2017.2.2 or greater has been installed - *PASS*
Patch "XU*8.0*1020" is installed - *PASS*
Patch "DI*22.0*1020" is installed - *PASS*
Patch "XT*7.3*1019" is installed - *PASS*
Patch "BUSA*1.0*2" is installed - *PASS*

Install Questions for BUSA*1.0*3

Incoming Files:

9002319.01BUSA AUDIT LOG SUMMARY
Note: You already have the 'BUSA AUDIT LOG SUMMARY' File.

9002319.02BUSA AUDIT LOG DETAIL
Note: You already have the 'BUSA AUDIT LOG DETAIL' File.

9002319.04BUSA SWITCH SETTINGS
Note: You already have the 'BUSA SWITCH SETTINGS' File.

9002319.05BUSA CACHE CLASS TRANSPORT (including data)
Note: You already have the 'BUSA CACHE CLASS TRANSPORT' File.
I will OVERWRITE your data with mine.

9002319.08BUSA FILEMAN AUDIT INCLUSIONS FILE (including data)
Note: You already have the 'BUSA FILEMAN AUDIT INCLUSIONS FILE' File.
I will OVERWRITE your data with mine.

9002319.09BUSA FILEMAN LOCAL AUDIT DEF
Note: You already have the 'BUSA FILEMAN LOCAL AUDIT DEF' File.

9002319.11BUSA AUDIT LOG SUMMARY ARCHIVE
Note: You already have the 'BUSA AUDIT LOG SUMMARY ARCHIVE' File.

9002319.12BUSA AUDIT LOG DETAIL ARCHIVE
Note: You already have the 'BUSA AUDIT LOG DETAIL ARCHIVE' File.

9002319.13BUSA ARCHIVE HISTORY
Note: You already have the 'BUSA ARCHIVE HISTORY' File.

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//    VIRTUAL

Install Started for BUSA*1.0*3 :
      Aug 05, 2020@16:05:50

Build Distribution Date: Aug 05, 2020

Installing Routines:.....
      Aug 05, 2020@16:05:50

Running Pre-Install Routine: PRE^BUSA1P03.

Installing Data Dictionaries: .....
      Aug 05, 2020@16:05:50

Installing Data:
      Aug 05, 2020@16:05:50

Installing PACKAGE COMPONENTS:

Installing SECURITY KEY..

Installing OPTION.....
      Aug 05, 2020@16:05:50

Running Post-Install Routine: POS^BUSA1P03.
List started on 08/05/2020 16:05:51
Listing file E:\InterSystems\HealthShare\mgr\Temp\DsbJ6J9wkK67XQ.xml as xml
List finished successfully.

Load started on 08/05/2020 16:05:51
Loading file E:\InterSystems\HealthShare\mgr\Temp\IDsWlw20krKTlw.xml as xml
Imported class: BUSA.ArchiveReportPage
Imported class: BUSA.ArchiveReportingApp
Imported class: BUSA.EPCSMainReportPage
Imported class: BUSA.EPCSReportingApp
Imported class: BUSA.MainReportPage
Imported class: BUSA.ReportingApp
Imported class: BUSA.Users
Imported class: BUSA.Utilities
Compiling 8 classes, using 8 worker jobs
Compiling class BUSA.ArchiveReportingApp
Compiling class BUSA.EPCSReportingApp
Compiling class BUSA.ReportingApp
Compiling class BUSA.Utilities
Compiling class BUSA.Users
Compiling class BUSA.ArchiveReportPage
Compiling class BUSA.EPCSMainReportPage
Compiling class BUSA.MainReportPage
Compiling table BUSA.Utilities
Compiling table BUSA.Users
Compiling routine BUSA.EPCSReportingApp.1
Compiling routine BUSA.ArchiveReportingApp.1
```

```
Compiling routine BUSA.ReportingApp.1
Compiling routine BUSA.EPCSMainReportPage.1
Compiling routine BUSA.ArchiveReportPage.1
Compiling routine BUSA.MainReportPage.1
Compiling routine BUSA.Utilities.1
Compiling routine BUSA.Users.1
Load finished successfully.

Updating 9002319.05 Record

Turning on local Fileman file/field audit entries
This could take some time to complete
Turning FileMan auditing on for file (or subfile) and field
2                .01

2                .02

2                .03

2                .033
2                .05

2                .06

2                .07

2                .08

2                .081
2                .082

2                .083

2                .09

2                .0901
2                .0905
2                .0906

2                .091

2                .092

2                .093

2                .096

2                .097

2                .098

2                .1

...Additional list of audited files/fields here

9009081          .01
```

```
9009081 .02
9009081 .03
9009081 .05
9009081 1
9009081 1.1
9009081 2.1
9009081 2.2
9009081 2.3
9009081 2.4
9009081 3
9009081 4
9009081 6
9009081 8
9009081 10
9009081 12
9009081 13
9009081 14
9009081 15
9009081 18
9009081 19
9009081 20
9009081 21
9009081 22
9009081 23

FileMan audit link turned on
Updating Routine file.....
Updating KIDS files.....

BUSA*1.0*3 Installed.
Aug 05, 2020@16:05:55
```

```
Not a VA primary domain  
NO Install Message sent
```

Figure 4-1: Sample Cache install

## 5.0 Installation Configuration

The following example illustrates how to turn off the FileMan Auditing switch if a site determines that they do not want to log all before and after captures of changes in patient information.

**Note:** Disabling this switch will not prevent other patient or system related activity from getting recorded to BUSA.

```

1   Core Applications ...
2   Device Management ...
3   VA FileMan ...
4   Manage Mailman ...
5   Menu Management ...
6   Programmer Options ...
7   Operations Management ...
8   User Management ...
9   AVA MENU ...
10  Taskman Management ...
11  Information Security Officer Menu ...
12  Admin Tools ...

You have PENDING ALERTS
Enter "VA to jump to VIEW ALERTS option

Select IHS Kernel <TEST ACCOUNT> Option: ^BSEC Edit Security Audit
Current Security Audit Settings:
  Master      Status:      On
              Date Logged:  AUG 05, 2020@16:05:52
              User Logged:  DEMO,USER E
  BMXNet      Status:      On
              Date Logged:  AUG 05, 2020@16:05:52
              User Logged:  DEMO,USER E
  CIA Broker  Status:      On
              Date Logged:  AUG 05, 2020@16:05:52
              User Logged:  DEMO,USER E
  XWB Broker  Status:      On
              Date Logged:  AUG 05, 2020@16:05:52
              User Logged:  DEMO,USER E
  FileMan     Status:      On
              Date Logged:  AUG 05, 2020@16:05:52
              User Logged:  DEMO,USER E

Select one of the following:

  M      Master
  B      BMXNet
  C      CIA Broker
  W      XWB Broker
  F      FileMan

Select Switch: FileMan

Select one of the following:

```



```

          1          On
          0          Disabled

Change Status: On// 0 Disabled
Disable Comment: Disabling FileMan auditing in production

Turning off local Fileman file/field audit entries
This could take some time to complete
Turning off FileMan auditing link - restoring fields to original audit
status
2                .01

2                .02

2                .03

2                .033
2                .05

2                .06

2                .07

2                .08

2                .081
2                .082

2                .083

2                .09

2                .0901
2                .0905
2                .0906

2                .091

2                .092

2                .093

2                .096

2                .097

2                .098

2                .1

...Additional list of files/fields here

9009081          .01

9009081          .02
```

9009081	.03
9009081	.05
9009081	1
9009081	1.1
9009081	2.1
9009081	2.2
9009081	2.3
9009081	2.4
9009081	3
9009081	4
9009081	6
9009081	8
9009081	10
9009081	12
9009081	13
9009081	14
9009081	15
9009081	18
9009081	19
9009081	20
9009081	21
9009081	22
9009081	23
FileMan audit link turned off	

Figure 5-1: How to turn off the FileMan Auditing switch

## Acronym List

Acronym	Meaning
API	Application Programming Interface
CHIT	Certified Health IT
CPU	Central Processing Unit
IHS	Indian Health Service
KIDS	Kernel Installation and Distribution System
MU	Meaningful Use
RPMS	Resource and Patient Management System

## Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

**Phone:** (888) 830-7280 (toll free)

**Web:** <https://www.ihs.gov/itsupport/>

**Email:** [itsupport@ihs.gov](mailto:itsupport@ihs.gov)