

Gentran Integration Suite

iSeries Upgrade Guide

Version 4.3

Sterling Commerce
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<http://www.sterlingcommerce.com/Documentation/gis43/CopyrightPage.htm>

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Introduction

Use the Gentran Integration Suite *4.3 iSeries Upgrade Guide* to upgrade the Gentran Integration Suite software in an iSeries environment. This guide includes the pre-upgrade and post-upgrade processes. It also includes information for using the DB2 database with Gentran Integration Suite.

For new installations, use the Gentran Integration Suite *4.3 iSeries Installation Guide*.

Pre-Upgrade Information

Before You Begin Upgrading

Before you begin upgrading to Gentran Integration Suite 4.3, be aware of the following prerequisite tasks and considerations:

- ◆ *Standard Tasks and Considerations* on page 6
- ◆ *Special Tasks and Considerations* on page 7

Also, at several points in the upgrade process, you will be asked to download a file from <https://support.sterlingcommerce.com>. After logging in at this web page, click on the following links to reach the file: **Product Support** > Gentran Integration Suite > Gentran Integration Suite **Product Updates/Downloads**.

Note: If you are upgrading from Gentran Integration Suite 4.1 to 4.3, you must apply Gentran Integration Suite 4.1 Build 1990.

Standard Tasks and Considerations

Before you begin upgrading, be aware of all of the following standard tasks and considerations:

1. You must have a new license file to use the new licensed features of your upgraded installation.
2. Read through this entire document so that you have a clear understanding of what the upgrade requires.
3. Download the following information from the Gentran Integration Suite 4.3 library page <http://www.sterlingcommerce.com/Documentation/GIS43/homepage.htm>.

- ◆ *Release Notes*
- ◆ *System Requirements*

With each release, Sterling Commerce introduces leading edge technology to improve and enhance its software. Review the *System Requirements* to confirm that your system and databases meet the requirements, and also to manage any necessary upgrades or changes before upgrading.

4. Archive and purge any unneeded data before upgrading.

Archived data can only be restored from the same version and patch of Gentran Integration Suite from which it was archived. If you need to restore archived data that was archived prior to performing the

upgrade, then you must have a running instance of Gentran Integration Suite that matches the version and patch from which the archive was taken.

5. Back up your database. Export your business processes, trading partners, maps, etc.
6. Review and note the adapters, business processes, and other configurations in your current version. This will help identify any need for updating transport messages, third-party adapters, or configurations to adapters, such as the File System and Command Line Adapters.
7. If you have edited a pre-defined business process, be aware that the upgrade process overwrites pre-defined business processes. Your customized business process is preserved in the system, but it is no longer the default process.
8. If you have edited any property files (.properties or .properties.in), be aware that the upgrade process overwrites these property files, unless these changes were made using the customer_overrides.properties file. Your previous property file edits might not be applicable in Gentran Integration Suite 4.3.
9. *Always* install and test your upgrade in a non-production environment before upgrading your production environment.

Special Tasks and Considerations

Before you begin upgrading, be aware of the following special tasks and considerations, depending on your type of upgrade:

- ◆ If you have LDAP (Lightweight Directory Access Protocol) configuration information in the security.properties file, this information will automatically be moved to the authentication_policy.properties file.
- ◆ If your version of Gentran Integration Suite is integrated with the JBoss™, WebLogic®, or WebSphere® application server.

Gentran Integration Suite version 4.3 is installed without integration to an application server and does not require an application server for installation or at runtime. However, Gentran Integration Suite still supports integration with JBoss, WebLogic, and WebSphere. After you upgrade to 4.3, you can restore integration with your application server if desired. To do so, use the Gentran Integration Suite EJB Adapter. For more information, refer to the documentation for the EJB Adapter.

Preparing Your System for the Upgrade

To verify system compatibility and prepare for the upgrade, perform the following tasks:

1. Review Gentran Integration Suite *Release 4.3 System Requirements* document. Your system must meet the minimum requirements that are documented, while your database and JDBC driver versions must match the documented requirements. Complete any necessary upgrades or changes in preparation for the upgrade.
2. Collect information on any third-party libraries used for adapter configuration that were added to your current release. You must add each of these libraries to release 4.3 later in the upgrade process.

3. Locate any configuration file changes for the JDBC adapter or the Lightweight JDBC adapter in your current release. Later in the upgrade process, you will copy these changes to release 4.3.
4. Record your performance tuning configuration. You will restore these settings later in the upgrade process.
5. Back up Gentran Integration Suite and your current database.

Caution: If there are problems with your upgraded system, the only way to ensure that you can roll back to your previous version is to back up Gentran Integration Suite and your database.

After you successfully back up Gentran Integration Suite and your database, you are ready to upgrade the software. Before you begin, see *Gentran Integration Suite 4.3 Release Notes*.

Preserving Customer Changes During Updates

You can preserve your custom changes to system resources (like workflow definitions and maps) when you update your system. During updates, the system can identify when you make a custom change versus when the system makes a change through an upgrade or patch.

When a patch, installation or upgrade is performed, a baseline record of system resources is created. This baseline is not affected by any subsequent customer changes. When another patch is installed, the resources in this baseline are compared to the resources in the existing system. If a baseline and existing resource are not the same, that means that the existing resource was customized, and is not overwritten by the patch.

During an update, the baseline is updated with new system resource information, but not with custom changes to resources.

A report shows what has changed in the system that customer-specific changes did not permit to get set as defaults. This report is used in conjunction with the user interface to verify that customer overrides are not getting overwritten by the patch.

The report includes the following resource types:

- ◆ Workflow definitions
- ◆ Maps
- ◆ Schema
- ◆ Template

Upgrading in an iSeries Environment

Preinstallation Setup Checklist for an iSeries Environment

The following topics will assist you with preinstallation tasks when planning an upgrade installation of Gentran Integration Suite in an iSeries environment:

- ◆ *Checklist for iSeries Preinstallation* on page 9
- ◆ *Checking System Requirements* on page 12
- ◆ *Downloading the JCE Distribution File* on page 13
- ◆ *Determining Port Numbers* on page 13
- ◆ *Configuring the System to View Files* on page 14
- ◆ *Mapping a Network Drive* on page 14
- ◆ *Specifying the QCCSID* on page 14
- ◆ *Creating a Gentran Integration Suite User Profile* on page 15
- ◆ *Preparing the Database* on page 15
- ◆ *Obtaining a License File* on page 15

Checklist for iSeries Preinstallation

The preinstallation checklist contains the items you need to gather and tasks you need to complete prior to installing Gentran Integration Suite on iSeries.

Note: When creating a name, such as an account name, permissions name, profile name, or database name, follow these conventions:

- ◆ The first character must be alphabetic or one of the following: \$, @, or #
- ◆ The remaining characters may be alphanumeric or one of the following: \$, @, #, _ or .
- ◆ Do not use spaces or apostrophes.

You may want to make a copy of the following checklist and use it to do the following:

- ◆ Set up your system and verify that it is ready for an installation (Steps 1-6).

- ◆ Record the information that you will need during the installation (Steps 7-18).

Step	Description	Your Notes
1	Verify that your system meets the hardware and software requirements specified for this release. See <i>Checking System Requirements</i> on page 12.	
2	For systems with multiple IP addresses, verify that the IP address on which Gentran Integration Suite resides is accessible by any client computer that is running a browser interface. Caution: If you do not verify the IP addresses, your system may not operate properly after installing Gentran Integration Suite.	
3	Verify that all client computers are using Microsoft Internet Explorer 5.x or later.	
4	Configure the system to view Gentran Integration Suite files using Windows Explorer. See <i>Configuring the System to View Files</i> on page 14.	
5	Map a network drive to your working directory. See <i>Mapping a Network Drive</i> on page 14.	
6	Specify the QCCSID (Coded Character Set) under which Gentran Integration Suite will run. See <i>Specifying the QCCSID</i> on page 14.	
7	Determine and record the collection name for the database. See <i>Preparing the Database</i> on page 15.	
8	Determine and record the passphrase you want to use for Gentran Integration Suite system. During installation, you are prompted twice to enter the passphrase, which is not displayed when you type it.	
9	Determine and record information to set up default system alerts from Gentran Integration Suite: <ul style="list-style-type: none"> ◆ The Administrative e-mail address to which system alert messages are sent. Note: It is recommended that you not change the Administrative e-mail address during an upgrade. If you change this address, you will have to update adapters, business processes and other items that include this information. ◆ The SMTP Server IP address used for sending alert messages. 	
10	Determine and record the initial port number to be used by Gentran Integration Suite. See <i>Determining Port Numbers</i> on page 13.	

Step	Description	Your Notes
11	Determine and record the catalog name for the database. See <i>Preparing the Database</i> on page 15.	
12	<p>Determine the Host IP address for Gentran Integration Suite. This is required even if you only have one IP address for your system. To find the IP Address of your system:</p> <ul style="list-style-type: none"> ◆ Key in WRKTCPSTS *IFC ◆ Locate and record the IP address to use for Gentran Integration Suite. 	
13	Create Gentran Integration Suite user profile and its associated password. Be sure to record the user password so you can enter it during installation. The user password is not displayed when you enter it. See <i>Creating a Gentran Integration Suite User Profile</i> on page 15.	
14	<p>Determine and record the absolute path to Gentran Integration Suite jar file. The jar file can reside in any directory on your system. During installation, you use this directory, but this is not the final directory where Gentran Integration Suite resides.</p> <p>Note: Do not place the Gentran Integration Suite jar file in the root directory. It must reside under a directory other than the root directory. For example, <i>/install_dir/xxx.jar</i></p>	
15	<p>Record the directory in which you want to install Gentran Integration Suite.</p> <p>Gentran Integration Suite installation directory must be a new directory and cannot already exist. A large subdirectory tree will be created under this directory. During installation, this directory is referred to as the <i><install_dir></i>.</p>	
16	Obtain the license file and record the absolute path to the license file. See <i>Obtaining a License File</i> on page 15.	
17	Obtain the JCE distribution file and record the absolute path to the zipped file. See <i>Downloading the JCE Distribution File</i> on page 13.	

Step	Description	Your Notes
18	<p>Determine whether Gentran Integration Suite is using an application server (JBoss™, WebLogic® or WebSphere®).</p> <p>Gentran Integration Suite 4.3 does not require an application server for installation or at runtime.</p> <p>Gentran Integration Suite supports integration with JBoss and WebLogic during the installation. You can also integrate with WebSphere, JBoss, or WebLogic after installing Gentran Integration Suite 4.3 by using the Gentran Integration Suite EJB Adapter. This does not represent a WebLogic server for deploying the Application Console.</p>	

Note: Gentran Integration Suite installation program will automatically set the umask to 002 during the installation. However, iSeries system administrators should consider placing an appropriate umask command such as umask 002 in their global or user login script because the default of 000 could allow many IFS files to be world-writable. Please consult the IBM iSeries Information Center for more information on umask and customizing your Qshell environment.

Checking System Requirements

Before you begin, verify that your system meets the hardware and software requirements specified for this release. The hardware requirements listed are the minimum required to run Gentran Integration Suite. Your system requirements will exceed these if you are running other applications on the same machine as Gentran Integration Suite. For current information, see the *System Requirements* posted on Gentran Integration Suite Documentation Library:

<http://www.sterlingcommerce.com/Documentation/GIS43/homepage.htm>

The installation strictly enforces the following system requirements:

- ◆ Operating system version (must match requirement exactly)
 - The minimum patch level for the operating system is enforced, but you can apply higher patch levels.
- ◆ JDK version (must match requirement exactly)
- ◆ Disk space
 - The disk space is a minimum for the installation. The system should be separately sized to handle whatever load is going to be put on the system.

Downloading the JCE Distribution File

The Java Cryptography Extension (JCE) is a set of Java packages from IBM that provides a framework and implementations for encryption, key generation and key agreement, and Message Authentication Code (MAC) algorithms.

Note: If you are installing Gentran Integration Suite outside of the United States, check to see if you can get the JCE unlimited strength jurisdiction policy files. The unlimited strength jurisdiction policy files can only be exported to countries to which the United States permits the export of higher-level encryption.

To obtain this file for the IBM JDK 1.5:

1. Open your browser and navigate to <https://www14.software.ibm.com/webapp/iwm/web/reg/pick.do?source=jcesdk>.
2. Enter your IBM ID and password. If you do not have an IBM ID, follow the IBM registration instructions provided on the Sign In page.
3. Click **Submit**.
4. Select *Unrestricted JCE Policy files for SDK 1.4.2* and click **Continue**.
Note: The Unrestricted JCE Policy files for the 1.4.2 SDK are also used for the 1.5.0 SDK.
5. Review your personal information and the license agreement.
Select **I agree** and click **I confirm** to continue.
6. Download the *unrestrict142.zip* file to your system.
7. Once the file resides on your system, note the exact directory and file name for this zipped file. You will need this information during the installation process.

Determining Port Numbers

During installation, you are prompted to specify the initial port number for Gentran Integration Suite. To specify a port number, follow these guidelines:

- ◆ Gentran Integration Suite requires a range of 150-200 consecutive open ports between 10000 and 65535.
- ◆ The initial port number represents the beginning port number in the range.
- ◆ The port range starts with the initial port number and ends with the number that equals the initial port number plus around 200. All ports in this range must be available for Gentran Integration Suite. For example, if you specify 10100, then you need to make sure that 10100 through 10300 are not used by any other application on your system.

After your installation, refer to `install_dir/properties/sandbox.cfg` for all of the port assignments. In an iSeries environment, you can also view the port numbers currently in use on your system using one of these methods:

- ◆ Select from the **iSeries Navigator Network > TCP/IP Configuration > Connections**.
- ◆ Enter **WRKTCPSTS** on an iSeries command line and select **Option 3 (Work with TCP/IP connection status)**. Press **F14** to sort the port numbers in numerical sequence.
- ◆ Enter **NETSTAT *CNN** on an iSeries command line and press **Enter**. Press **F14** to sort the port numbers in numerical sequence.

Configuring the System to View Files

In the iSeries environment, you must configure your system to view Gentran Integration Suite files using Windows Explorer. Use the NetServer component of OS/400 to set up file shares that are accessible through Windows networking. You must set up a file share to a working directory in your iSeries Integrated File System (IFS).

Mapping a Network Drive

In the iSeries environment, you must map a network drive to the working directory for Gentran Integration Suite. For more information, refer to the documentation on the IBM Web site.

Specifying the QCCSID

In the iSeries environment, you must specify the QCCSID (Coded Character Set) under which Gentran Integration Suite will run. Follow these steps:

1. From an iSeries command line, enter **DSPSYSVAL SYSVAL(QCCSID)**.
2. Is the QCCSID set to 65535?
 - ◆ If **Yes**, then complete one of the following tasks:
 - Change the CCSID to a specific coded character set:
 - Enter **CHGSYSVAL SYSVAL(QCCSID) VALUE(xxx)**, where *xxx* represents your coded character set.
 - IPL your iSeries.
 - Keep the QCCSID at 65535 and specify a specific CCSID other than 65535 when you create your Gentran Integration Suite user profile.

Note: Refer to the IBM National Language Support Guide for valid coded character sets. It is recommended that you use the coded character set 037 for a US English system.

- ◆ If **No**, continue with the next preinstallation task.

Creating a Gentran Integration Suite User Profile

In the iSeries environment, you must create a user profile for accessing Gentran Integration Suite databases. Use this user profile when you submit the installation command and any function related to your Gentran Integration Suite system.

If your system value QCCSID is set to **65535**, then set the CCSID parameter to a specific coded character set other than 65535 on the CRTUSRPRF command. See the IBM National Language Support Guide for valid coded character sets. See your operating system documentation for more information about creating user profiles.

Note: The job description assigned to the user profile must have a job queue defined that allows at least eight active jobs (the maximum active must be set to at least **8**). If this parameter is defined less than stated, Gentran Integration Suite will not install/start correctly. This also applies to starting Gentran Integration Suite after installation.

Preparing the Database

In an iSeries environment, Gentran Integration Suite uses the DB2 database that is included in OS/400. The installation process creates a new collection for Gentran Integration Suite. Before you install, you must determine and record the collection name and the catalog name.

- ◆ The collection name is the name of the collection (or library) that contains the database, journal, and journal receiver for your Gentran Integration Suite system. This collection must not already exist.
- ◆ The catalog name is the database name of your iSeries system, as defined by the WRKRDBDIRE command. Generally, this value is the name of your system.

All database files are required to be journaled when being used by the translator in Gentran Integration Suite. If your application files are not currently journaled, and you plan to access these files through Gentran Integration Suite, please refer to the IBM manuals for instructions on journaling physical files.

Obtaining a License File

After your company signed the sales contract with Sterling Commerce, Sterling Commerce created a license file containing information about your company, your system, and the packages (components), such as services, maps, and adapters, your company selected to use.

The license file contains a license that is associated with your specific operating system and the IP address of your system. The license provides access, for 20 years from the date of issue, to Gentran Integration Suite packages your company selected and is independent of your maintenance fee. Because the license is independent of your maintenance fee, the schedule for renewing your license and license file may be different than the maintenance fee schedule.

You must download the license file before you can install Gentran Integration Suite. Follow these steps:

1. Point your Web browser to <http://www.productupdates.stercomm.com>.
2. Review the Welcome to Sterling Commerce Product Update page and click **Next**.
3. Review the Authenticate page and click **Next**.

4. Type the License File Key, which is case-sensitive, and click **Next**. If you are upgrading, the Retrieve Registration dialog box appears and you may retrieve your registration information by entering your previous License File Key. If you are not upgrading, then click **Next**.
5. Verify the registration information and click **Next**.
6. On the Server Details page, update the fields and click **Next**.
If the operating system, application server, or database server version is not listed in the respective lists, type the version in the respective **Description of Other**.
All IP addresses assigned to the server in which you are installing Gentran Integration Suite should be listed in the license file.
7. Verify the list of packages and the type of license selected for each package and click **Next**. If the list of packages selected or the type of license selected is *not* correct, then contact Customer Support to correct the information.
8. Scroll to the bottom of the Review and Download Package License File page and click **Finish and Download**.
9. Click **Save** in the **File Download** dialog box.
10. Accept the default location for the license file or navigate to the location where you will store the license file. Note the absolute path of the file location on the Preinstallation Checklist. You will need the absolute path to install Gentran Integration Suite.
11. Click **Save**.
12. Close your Web browser.

Upgrading in an iSeries Environment

Installing Gentran Integration Suite in an iSeries environment includes the following sections:

- ◆ *Upgrading in iSeries* on page 16
- ◆ *Untarring a File from the ESD Portal* on page 17
- ◆ *Running the Upgrade Installation Program in iSeries* on page 18

Upgrading in iSeries

To upgrade to Gentran Integration Suite version 4.3, follow the installation steps in *Running the Upgrade Installation Program in iSeries* on page 18. These steps include special instructions for upgrading. Before running the upgrade program, refer to the *Pre-Upgrade Information* section. After running the upgrade program, refer to the *Post-Upgrade Processes* section.

Caution: It is important to remember that upgrading to 4.3 involves a full installation of Gentran Integration Suite. You need to prepare for an upgrade the same way that you would prepare for an installation.

Caution: Before the upgrade, you should always make a copy of your production database, and then perform the upgrade on the copy of the production database.

This upgrade does not overwrite your current Gentran Integration Suite directory structure on disk. Instead, it creates a new installation of Gentran Integration Suite 4.3 and uses a copy of your original instance's database to upgrade to the new version. After the upgrade, both instances will be operational.

When running the installation program (see *Running the Upgrade Installation Program in iSeries* on page 18), enter the following information exactly the same as your existing installation:

- ◆ Collection name – The name of your copied database
- ◆ IP address
- ◆ Passphrase

Note: If you need to patch Gentran Integration Suite before continuing the upgrade, it is recommended that you fully test the patch prior to performing the upgrade. If you are running a patch less than 4.0.3-5, you **MUST** patch to version 4.0.3-5 or higher before continuing the upgrade.

Caution: This upgrade changes the administrative password to the default password. After the upgrade, change the password back to the administrative password to minimize security risks. This is the Admin password for logging into the UI (/dashboard or /ws).

Untarring a File from the ESD Portal

The following procedure describes how to untar a file from the Electronic Software Distribution (ESD) Portal on iSeries. During the upgrade, you will reference this procedure.

1. After the file has been downloaded from ESD portal, key in **qsh** from an iSeries command line and press **Enter**.
2. Key in **set** and press the **Enter** key.
This will list variables on the screen. Look for the QIBM_CCSD variable. It will look like **QIBM_CCSD=0**. Write down what it is set to.
3. Key in **export QIBM_CCSD=819** and press **Enter**.
4. **cd** to the directory where the tar file is sitting.
5. Key in **set** to verify that the QIBM_CCSD is set to **819**.
6. Key in **tar -xvf name.of.tarfile.tar** and press **Enter**.
7. After it has performed the untar, you need to set the CCSID back.
8. Key in **export QIBM_CCSD=0** and press **Enter**, where the 0 represents the value in step 2.
9. Key in **set** and press **Enter** to verify that QIBM_CCSD is set to what it was in step 2.
10. You need to verify that the untar was successful. At this point you will still be in the directory where the GIS.jar was untarred to. Key in **jar -tf GIS.jar** and press **Enter**. If you get file names to scroll up on the screen, the untar worked. If you get the \$ prompt back with no additional information, then the untar was not successful and you will have to untar again.

You are now ready to continue with the install.

Running the Upgrade Installation Program in iSeries

The following instructions assume that you received an installation CD for Gentran Integration Suite. If you downloaded Gentran Integration Suite or a Service Pack (SP) from the Electronic Software Distribution (ESD) Portal, save the GIS4300.tar file to your mapped network drive on the iSeries and untar the file. Please see *Untarring a File from the ESD Portal* on page 17 on how to untar a file. The directory containing the untarred files is an electronic image of an installation CD. Use this directory wherever there is a reference to the installation CD in the following instructions. Ignore any instructions to place the installation CD in a drive.

To upgrade Gentran Integration Suite in an iSeries environment, you run an installation program. Refer to the information you recorded in the checklist and follow the steps below.

Note: During the installation, various messages are displayed, including some warning messages. These warning messages require no action on your part and are included so that helpful data is recorded in the log file.

Note: Before your upgrade installation, shut down your base installation. This will free up the port number that you used in your base installation.

1. Insert Gentran Integration Suite installation CD in the appropriate drive. You can use a drive on your PC or on your iSeries CD reader.
2. Depending on the drive you are using, choose one method. Be sure to record the absolute path that you use.
 - ◆ If the CD is in your PC, copy or FTP the file GIS.jar from the installation CD to the *absolutePath* in the IFS root or QOpenSys file system.
 - ◆ If the CD is in your iSeries reader, enter the following command on the command line:


```
cp /qopt/GIS.jar absolutePath/GIS.jar
```
3. Copy the file instjar.savf from the iSeries directory on the installation CD to the mapped network drive.

Steps 4 through 6 will download the installation programs required for the upgrade to Gentran Integration Suite 4.3.

4. Is there a save file called **INSTJAR** in QGPL on your iSeries?
 - ◆ If **YES**, clear the save file by entering **CLRSVF FILE(QGPL/INSTJAR)**.
 - ◆ If **NO**, enter **CRTSAVF FILE(QGPL/INSTJAR)** to create a save file on your iSeries.
5. Copy the instjar.savf file that you copied from the CD to the save file created in QGPL by entering:


```
CPYFRMSTMF FROMSTMF('/directory/filename of the savf')
TOMBR('/QSYS.LIB/QGPL.LIB/INSTJAR.FILE') MBROPT(*REPLACE)
CVTDTA(*NONE)
```
6. Enter **RSTLIB SAVLIB(INSTJAR) DEV(*SAVF) SAVF(QGPL/INSTJAR)** to restore the installation objects.
7. Log in to your iSeries using the user profile you created during preinstallation.

8. Copy (back up and restore) the DB2 database for your previous version of Gentran Integration Suite for iSeries into Gentran Integration Suite 4.3, using the following steps .

Note: Before the upgrade on iSeries, you should always make a copy of your production database, and then perform the upgrade on the copy of the production database.

Note: The following procedure uses Gentran Integration Suite 4.0 as an example. Change the commands as necessary for your version of Gentran Integration Suite.

- a. Ensure that no one is using Gentran Integration Suite 4.0 or Gentran Integration Suite 4.3 database.
- b. The save and restore procedure must be done by the iSeries System Security Officer (QSECOFR) or by a user with *SECADM authority.

To create a save file to hold your Gentran Integration Suite 4.0 database, type:

```
CRTSAVF FILE(QGPL/SAVE40DB)
```

If the save file already exists, type in:

```
CLRSAVF FILE(QGPL/SAVE40DB)
```

- c. Save your Gentran Integration Suite 4.0 database into the new save file using the following command:

```
SAVLIB LIB(GIS40DB) DEV(*SAVF) SAVF(QGPL/SAVE40DB)
```

GIS40DB represents your Gentran Integration Suite 4.0 database (collection).

- d. Create the collection again that will hold your Gentran Integration Suite 4.3 database, by first signing on to your iSeries using the user profile that you will use to run Gentran Integration Suite.
- e. From an iSeries command line, type `STRSQL` to get to an interactive SQL session.
- f. Type `create collection GIS43DB`.

GIS43DB represents your Gentran Integration Suite 4.3 database.

The create collection command creates a collection (library), called *GIS43DB*, that contains a journal, journal receiver, and several logical views.

- g. After the create command finishes, exit your SQL interactive session without saving.
- h. To restore your Gentran Integration Suite 4.0 database to the same collection (library name) that you just created in step f from above, type:

```
RSTLIB SAVLIB(GIS40DB) DEV(*SAVF) SAVF(QGPL/SAVE40DB) RSTLIB(GIS43DB)
```

GIS40DB represents your Gentran Integration Suite 4.0 database.

GIS43DB represents your Gentran Integration Suite 4.3 database.

You should receive a message similar to the following message, ### objects restored. 20 not restored to *GIS43DB*.

Note: The 20 objects that are not restored are the journal and journal receiver files. This is expected.

9. Enter **ADDLIB LIB(INSTJAR)** from an iSeries command line to add the installation programs to your library list.

10. Journaling needs to be set up appropriately on the newly copied database. To accomplish this, enter **FIXJRNS** and press **F4**. You will be prompted for old collection and new collection information, as follows:
- ◆ If the old collection exists on the same iSeries machine as the new collection, when the restore took place, the newly restored files were journaled to the old collection. By running this command, it will un-journal the files from the old collection and journal them to the new collection. By doing this, the end result will be two completely separate libraries. If you do not run this command, the new library will be tied to the old library by the journal files and you would not be allowed to delete the old library until you corrected the journaling.
 - ◆ If the old collection exists on a different iSeries machine and it was transferred and restored onto the iSeries box where you will be performing the upgrade, none of the files were journaled. This command will journal the files to the new collection. When running this command, enter ***NONE** for the Old Collection parameter and enter the new collection in the New Collection parameter.

Based on the information above, fill in the appropriate answer for the Old Collection parameter. Key in the collection name for the new Gentran Integration Suite system and press **Enter**. This will run interactively and correctly journal all of your physical files that have just been restored into your newly created collection that will be used in your upgrade process.

11. Enter **INSTJAR** and press **F4** to prompt the command. The system displays the list of configuration parameters needed to install Gentran Integration Suite.
12. For each configuration parameter listed, enter the value you want to use. Refer to your notes in the preinstallation checklist.
- ◆ Collection Name
Enter this information exactly the same as in your existing installation.
 - ◆ Upgrade from prior Gentran Integration Suite version (***YES** or ***NO**)
Answer ***YES** to this parameter to upgrade your previous version of Gentran Integration Suite to the 4.3 version of Gentran Integration Suite. When you answer ***YES** to this prompt, it will convert your older copied database to the version 4.3 database structure.
 - ◆ Gentran Integration Suite System Passphrase
Enter this information exactly the same as in your existing installation.
 - ◆ Verify Gentran Integration Suite System Passphrase
 - ◆ Administrative e-mail address
Note: It is recommended that you not change the Administrative e-mail address during an upgrade. If you change this address, you will have to update adapters, business processes and other items that include this information.
 - ◆ IP Address for SMTP Server
Enter this information exactly the same as in your existing installation.
 - ◆ TCP/IP Port Number
 - ◆ Catalog Name
 - ◆ Host IP Address

- ◆ Gentran Integration Suite User Profile
- ◆ Gentran Integration Suite User Password
- ◆ Full Path to Gentran Integration Suite Jar File

13. Press **Page Down** for the remaining parameters:

- ◆ Gentran Integration Suite install directory. Be sure to enter a complete path name.
- ◆ Full license path name. Be sure to enter a complete path and file name.
- ◆ JCE distribution file. Be sure to enter a complete path and file name.

14. Verify the parameters you entered and press **Enter**.

The installation process takes between one and two hours to complete. The installation time depends upon the size of your iSeries. Monitor the installation process to verify that no JAVA exception errors are generated.

The install runs in batch mode. To monitor the progress of the install, use the WRKLNK command display function to view the log file (**gisinstall.log**). This file resides in the same directory where you placed the GIS.jar file. In addition to the job you submitted, various BCI jobs, command shells, and JVMs appear and disappear in your batch subsystem. This processing is normal.

Note: After performing the upgrade, refer to *Installing the Current Maintenance Patch* on page 21 to install the latest patch.

Patches and Hot-Fixes

The following sections explain how to update Gentran Integration Suite, using the following methods:

- ◆ *Installing the Current Maintenance Patch* on page 21

Patches contain cumulative fixes for a specific version of Gentran Integration Suite. Because each patch contains the fixes from previous patches, you only need to install the most recent patch.

- ◆ *Installing a Hot-Fix* on page 22

A hot-fix is one or more fixes applied to a specific existing patch.

Installing the Current Maintenance Patch

Patches contain cumulative fixes for a specific version of Gentran Integration Suite. Because each patch contains the fixes from previous patches, you only need to install the most recent patch.

Note: During patch installation, the dbVerify utility compares the list of standard indexes with those present in the database and drops the custom indexes. You should recreate the custom indexes after the patch installation is complete.

To help you determine which patch to use, the files are named using the following naming convention:

si_43_build_ *build number*.jar (for example, si_43_build_4307.jar)

Information about a patch is located in a PDF file with a similar name. The naming convention for PDF files containing information about a particular patch is:

si_43_build_ *build number* _patch_info.pdf (for example, si_43_build_4307_patch_info.pdf)

Both the jar and the PDF files are available on the Sterling Commerce Support on Demand Web site, at <https://support.sterlingcommerce.com>. You should periodically check the web site to verify that you have the most recent patch.

Note: The patch installation may use one or more patch property override files. These files will be named *propertyFile_patch.properties*. Do not alter these files.

Additionally, property changes made directly in *.properties* or *.properties.in* files may be overwritten during the patch installation. Properties overridden using the *customer_overrides.properties* file are not affected.

To install the latest patch for Gentran Integration Suite in an iSeries environment, follow the steps below.

1. Go to the Sterling Commerce Support on Demand Web site, at <https://support.sterlingcommerce.com>.
2. Download the most recent patch file for your version of Gentran Integration Suite.
3. Sign on with your Gentran Integration Suite user profile and enter into QSH (QShell mode).
4. In QSH, change to the *install_dir/bin* directory, where *<install directory>* = Gentran Integration Suite installation directory.

Example: `cd /install_dir/bin` and press **Enter**.

5. Run the following command to install the patch:

```
./InstallService.sh <path>/si_version_build_build number.jar
```

where:

<path> = Fully qualified path to maintenance patch file

<version> = Gentran Integration Suite Version

<number> = Patch number

Example: `InstallService.sh install_dir/si_43_build_4307.jar`

Information about the Patch installation is automatically logged to *install_dir/logs/InstallService.log*.

If the patch attempts to modify the database schema and the modification fails, you will receive an error message about the failure. The message provides the error message code from the database and the SQL command that failed. The failure information is also logged to the *system.log* file and to the *patch.log* file.

6. After the patch is applied, the following message is displayed:

```
Deployment to application server successful
```

7. Start Gentran Integration Suite.

Installing a Hot-Fix

After you install Gentran Integration Suite you may need to install a hot-fix. A *hot-fix* is one or more fixes applied to a specific existing patch.

Before you can install a hot-fix developed for your company, you must have completed the following:

- ◆ Received the case ID number from Sterling Commerce Customer Support
- ◆ Created a full backup of Gentran Integration Suite
- ◆ Created a full backup of your database

To install a hot-fix in an iSeries environment, follow the steps below:

1. Log in to the computer that you are installing the hot-fix on.
2. Sign on with your Gentran Integration Suite user profile.
3. At the command line, type `ftp theworld.stercomm.com`.
4. Type your user name and password. If you do not know your user name and password, contact Sterling Commerce Customer Support.
5. Type `bin` and press **Enter** to select Binary as your transfer mode.
6. Type `namefmt 1` to direct the file to the IFS.
7. Type `lcd /install_dir`, where `/install_dir` is your Gentran Integration Suite installation directory. After the FTP is complete, the file will reside in this directory.
8. At the FTP prompt, type `get ccaseid.jar`, where `ccaseid` is the ID number you received from Sterling Commerce Customer Support. For example, `c123.jar`, where 123 is the ID number.
9. Shut down Gentran Integration Suite.
10. Enter into QSH mode.
11. Change to the `install_dir/bin` directory.
12. Type the following command to install the hot-fix:


```
./InstallService.sh absolutePath/ccaseid.jar
```

Caution: You may need to complete this step twice depending on the patch. Read the output from the `InstallService.sh` script carefully to see if you need to complete this step twice.
13. Restart Gentran Integration Suite.
14. In the `install_dir/bin` directory, run `dump_info.sh` to verify that the hot-fix was successfully installed.

Hot-Fix Package Delivery Method

The hot-fix package delivery method has changed effective Gentran Integration Suite, Release 4.3 Build 4324 onwards. The hot-fix package will be delivered as a jar file that contains only the files that were modified. However, the installation procedure for a hot-fix remains the same. Refer to *Installing a Hot-Fix* on page 22 for hot-fix installation procedure.

The following list describes the features of the new hot-fix package model:

- ◆ Modified components are packaged as an installable file (jar).
- ◆ Hot-fix version is maintained in the `hotfix.properties` file. It does not update the `SI_VERSION` table. Run `dump_info.sh` command to display the hot-fix version. You can also verify the hot-fix version in Gentran Integration Suite Support user interface page.
- ◆ Size of the hot-fix package is small.

- ◆ Hot-fix must be installed on the same build version that was used to build it. For example, if a test system is on Gentran Integration Suite, Release 4.3 Build 4324 and the hot-fix is built for 4324, it can be installed on that test system. However, if the production system is on Gentran Integration Suite, Release 4.3 Build 4323, you must apply Gentran Integration Suite, Release 4.3 Build 4324 prior to applying the hot-fix.
- ◆ You can locate the hot-fix read me file in the Gentran Integration Suite root (*install_dir*) directory. For example, *install_dir/hotfix_readme.txt*.
- ◆ If you have Sterling File Gateway installed in your environment, the hot-fix for Sterling File Gateway is installed automatically.

Performing Checksum using DB Checksum Tool

A checksum is a simple redundancy check used to detect errors in data. In Gentran Integration Suite 4.3, a verification process is used to compare the checksum between the existing default resource and the resource added after applying a patch or upgrading. The DB Checksum tool, a resource difference tool generates a granular report of the changes in the system that was not permitted to be set as defaults.

The DB Checksum tool generates the difference in resource checksum between the default resource and the latest system resource from the database.

To run DB Checksum tool, do the following:

1. Navigate to the *<install_dir>/bin* directory.
2. Run the following command from the *<install_dir>/bin* directory:


```
./db_checksum_tool.sh [-d] [-i [1 | 2 | 3 | 4 | 5]] [-r [wfd | map | schema | sii | template]] [-o <output file>] [-g] [-h]
```

where:

 - d is the mode to dump the difference of resource checksum between the default resource and latest system resource.
 - i is the resource type integer (optional).
 - 1 is WFD
 - 2 is MAP
 - 3 is SCHEMA
 - 4 is SII
 - 5 is TEMPLATE
 - r is the resource name (optional).For example, wfd, map, schema, sii, or template.
 - o is the file name to output all the messages (optional).
 - g is the file name that lists all the ignored resources (optional).
 - h is the help screen.
3. The DB Checksum tool performs the relevant checksum operation based on the command options and generates the output message.

Post Installation in an iSeries Environment

After installing Gentran Integration Suite, you should complete the following tasks:

- ◆ *Starting Gentran Integration Suite* on page 25
To stop Gentran Integration Suite, refer to *Stopping Gentran Integration Suite* on page 28.
- ◆ *Accessing Gentran Integration Suite* on page 26
- ◆ *Validating the Installation* on page 27
- ◆ *Downloading Gentran Integration Suite Tools* on page 27
- ◆ *Performing Initial Administrative Setups in Gentran Integration Suite* on page 28

Starting Gentran Integration Suite

1. Sign onto iSeries with your Gentran Integration Suite user profile.
2. Submit a batch job by entering the following command:

```
SBMJOB CMD(QSH CMD('umask 002 ; cd install_dir/bin ; ./run.sh'))
JOB(SIMAIN)
```

Note: The job queue to which you submit the command must allow at least eight active jobs. If the maximum number of active jobs is less than eight, Gentran Integration Suite will not start up completely.

To reduce keying errors at startup, create a command language (CL) program similar to the following example:

```
PGM
SBMJOB CMD(QSH CMD('umask 002 ; cd install_dir/bin ; ./run.sh')) +
JOB(SIMAIN)
ENDPGM
```

3. Wait for startup to complete, a process that takes 10 to 15 minutes.
4. Startup creates a spool file. When startup is finished, open the QPRINT spool file and check the end of the file for a message about how to connect to Gentran Integration Suite. For example, you may see a message like the following:

*Open your Web browser to <http://host:port/dashboard>, where *host:port* is the host and port number where Gentran Integration Suite resides on your system.*

Make a note of the address so you can access Gentran Integration Suite later.

Note: It may take several minutes for Gentran Integration Suite to be available from the Web browser, even after the above URL message has been issued.

5. (Optional) To verify that Gentran Integration Suite has started normally and completely, view the system through WRKACTJOB and verify that at least four (sometimes five) QPOZSPWP jobs (of yours) are left running in your Gentran Integration Suite batch subsystem.

6. Prepare your browser to log in to Gentran Integration Suite. Configure your browser so that there is direct connection between the Web browser and iSeries. Do not configure the browser to use any proxy server between you and iSeries (unless it is a requirement of your network).

Accessing Gentran Integration Suite

To log in to Gentran Integration Suite the first time, follow these steps:

1. Be sure that Gentran Integration Suite is started and running.
2. Open a browser window and enter the address displayed at the end of startup.
3. The login page for Gentran Integration Suite displays.
4. Type the default user ID (**admin**) and password (**password**). The default login is at an administrative level. One of your first tasks as an administrator is to change the administrative password and to register other users with other levels of permission.

Changes to Network Interface Bindings

To increase the security of the Administrator Console user interface, Gentran Integration Suite version 4.3 binds only to specific network interfaces. By default, previous versions had been bound to all network interfaces. After installing, if the URL for Gentran Integration Suite returns *Page cannot be displayed*, you can adjust property settings to correct the problem.

1. On the server where Gentran Integration Suite resides, edit the file **noapp.properties.in**.

- a. Locate the **admin_host** parameter. The default settings are as follows:

hostname1 is the name of primary network interface, the one given highest priority by Gentran Integration Suite.

localhost is the name of the network interface on the server where Gentran Integration Suite resides.

Default entries

```
admin_host.1    = hostname1
admin_host.2    = localhost
```

- b. Correct the parameters.

If no interface is being displayed, edit *hostname1* so that it correctly identifies the primary network interface that accesses Gentran Integration Suite.

If an additional network interface needs to access Gentran Integration Suite, add an additional *admin_host* entry, as shown below.

Edited entries

```
admin_host.1    = hostname1
admin_host.2    = localhost
admin_host.3    = hostname2
```

2. Stop Gentran Integration Suite.
3. Run the `setupfiles.sh` utility located in the `install_dir/bin` directory.
4. Restart Gentran Integration Suite.

For the Dashboard user interface, Gentran Integration Suite version 4.3 provides unrestricted binding to network interfaces through the perimeter server. To restrict access to the Dashboard user interface, you can adjust property settings so that only one network interface accesses Gentran Integration Suite.

1. On the server where Gentran Integration Suite resides, edit the file `perimeter.properties.in`.
 - a. Locate the **localmode.interface** parameter. The default setting is unrestricted, as shown below.

Unrestricted Setting (Default)
`localmode.interface=*`
 - b. To restrict access to the Dashboard, enter the network interface that you want Gentran Integration Suite to support.

Restricted Setting
`localmode.interface=hostname1`
2. Stop Gentran Integration Suite.
3. Run the `setupfiles.sh` utility located in the `install_dir/bin` directory.
4. Restart Gentran Integration Suite.

Validating the Installation

After you install, start, and log in to Gentran Integration Suite the first time, you can validate the installation by testing a sample business process. Follow these steps:

1. Open a browser window and enter the address for Gentran Integration Suite. This address was displayed at the end of startup.
2. Enter your user login and password.
3. From the **Administration** menu, select **Business Processes > Manager**.
4. In the Process Name field, type **Validation_Sample_BPML** and click **Go!**
5. Click **execution manager**.
6. Click **execute**.
7. Click **Go!** The *Status: Success* message displays in the upper left side of the page.

Downloading Gentran Integration Suite Tools

Gentran Integration Suite includes tools that run on a desktop or personal computer. After you install, start, and access Gentran Integration Suite, you can install the following tools by downloading them from within Gentran Integration Suite:

Note: MESA Developer Studio and Reporting Services are optional features that are purchased separately from Gentran Integration Suite. These features each require a separate license in addition to your license for Gentran Integration Suite.

- ◆ Map Editor and associated standards
- ◆ Graphical Process Modeler
- ◆ Web Template Designer

- ◆ (If licensed) MESA Developer Studio plug-ins, including:
 - ◆ MESA Developer Studio Software Development Kit (SDK)
 - ◆ MESA Developer Studio Skin Editor
- ◆ (If licensed) Reporting Services, which requires MESA Developer Studio if you want to use the plug-ins to create fact models and custom reports.

Performing Initial Administrative Setups in Gentran Integration Suite

If you are installing Gentran Integration Suite for the first time, you need to perform some initial administrative setups before users can use the application. For example, the system administrator for Gentran Integration Suite must register users, grant permissions, and run several performance reports so that benchmarks are established for tuning the system in the future.

Stopping Gentran Integration Suite

To stop Gentran Integration Suite in an iSeries environment, follow these steps:

1. Sign onto iSeries with your Gentran Integration Suite user profile.
2. Enter the following commands:

```
QSH
cd install_dir/bin
./hardstop.sh
```

Note: To reduce keying errors at shutdown, create a command language (CL) program similar to the following example:

```
PGM
QSH CMD('cd install_dir/bin ; ./hardstop.sh')
ENDPGM
```

3. Wait for shutdown to complete. The length of this process is determined by how many temporary objects must be cleaned up and how many spool files must be created.

To ensure that you do not restart Gentran Integration Suite before shutdown is complete, monitor shutdown through either the `ps` command in Qshell or the `WRKACTJOB` display. Verify that `QPOZSPWP` jobs are complete and have disappeared.

Uninstalling Gentran Integration Suite from an iSeries Environment

When you uninstall, Gentran Integration Suite application is automatically removed from the server.

Additionally, you can manually remove any desktop tools that were downloaded.

Note: This uninstallation procedure applies to Gentran Integration Suite 4.3, and not the version of Gentran Integration Suite from which you are upgrading.

To uninstall Gentran Integration Suite from an iSeries environment, follow these steps:

1. Stop Gentran Integration Suite and wait for shutdown to complete.
2. Sign onto iSeries with your Gentran Integration Suite user profile.
3. In QSH, change to the directory above *install_dir*.

Example:

If the install directory is */(Gentran Integration Suite)*, then you change to directory */*.

4. Enter **rm -rf** *install_dir*.

Example:

```
rm -rf Gentran Integration Suite
```

5. Wait for the command prompt to return.
6. Select **F3 exit from Qshell**.
7. Enter **DLTLIB** *<collection name>*.

Example:

```
DLTLIB (Gentran Integration Suite)DB
```

A message like the following is displayed:

```
Receiver QSQJRN0001 in (Gentran Integration Suite)DB never fully saved. (I C).
```

Enter **I** to one or more of these messages until the library is deleted.

8. After you remove Gentran Integration Suite from the server, you can remove Eclipse, and any tools that were downloaded to the desktop:

Note: You can remove Eclipse plug-ins without removing Eclipse. Refer to the Eclipse on-line help for information about removing the plug-ins.

Note: MESA Developer Studio and Reporting Services are optional features that are purchased separately from Gentran Integration Suite. These features each require a separate license in addition to your license for Gentran Integration Suite.

- ◆ Map Editor and associated standards
Refer to the *Map Editor Guide* for information about removing the Map Editor.
- ◆ Graphical Process Modeler
Refer to the *Graphical Process Modeler Guide* for information about removing the Graphical Process Modeler.
- ◆ Web Template Designer
Refer to the *Web Extensions Guide* for information about removing the Web Template Designer.

- ◆ (If licensed) MESA Developer Studio plug-ins, including the Software Development Kit (SDK) and Skin Editor.

To remove these items, follow this procedure:

- a. Using Windows Explorer, locate the installation directory of Eclipse (For example, C:\Program Files\eclipse).
 - b. Navigate to the features directory and delete the folders for anything from Sterling Commerce, gisstudio, skineditor, and servicesdk.
 - c. Navigate to the plugins directory and delete the folders for anything from Sterling Commerce, gisstudio, skineditor, and servicesdk.
- ◆ (If licensed) Reporting Services, which requires MESA Developer Studio if you want to use the plug-ins to create fact models and custom reports.

Troubleshooting: iSeries Environment

Situation	Message or Symptom	Explanation/Resolution
Installing	Cannot find the license file that was downloaded as a preinstallation task.	<p>Explanation</p> <p>The license file is located on a personal computer rather than the server.</p> <p>Resolution</p> <p>Save the license file to the server using the mapped network drive.</p>
Starting	Invalid or corrupt license file.	<p>Explanation</p> <p>Either the license file was altered or was not downloaded prior to starting Gentran Integration Suite.</p> <p>Resolution</p> <p>Download your license file from http://www.productupdates.stercomm.com. See <i>Obtaining a License File</i> on page 15.</p>

Situation	Message or Symptom	Explanation/Resolution
Installing a desktop tool or resource	<p>Cannot download any of the following:</p> <p>Note: MESA Developer Studio and Reporting Services are optional features that are purchased separately from Gentran Integration Suite. These features each require a separate license in addition to your license for Gentran Integration Suite.</p> <ul style="list-style-type: none"> ◆ Map Editor and associated standards ◆ Graphical Process Modeler ◆ Web Template Designer ◆ (If licensed) MESA Developer Studio plug-ins (Software Development Kit (SDK), Skin Editor) ◆ (If licensed) Reporting Services, which requires MESA Developer Studio if you want to use the plug-ins to create fact models and custom reports. 	<p>Explanation</p> <p>When you install Gentran Integration Suite, system files are created that contain an internal IP address. If you install Gentran Integration Suite behind a firewall, and your firewall is configured to accept an external IP address from a client computer, you may not be able to download the desktop tools and resources. The firewall will reject the IP address from a client residing outside of the firewall.</p> <p>Resolution</p> <p>Modify the system files that contain the invalid IP address. Follow these steps:</p> <ol style="list-style-type: none"> 1 Navigate to the <i>install_dir</i>\bin directory. 2 Enter the following command followed by the external IP address: patchJNLP.cmd external_IP address 3 Stop Gentran Integration Suite. 4 Restart Gentran Integration Suite.
Accessing	<p>Attempts to access the URL for Gentran Integration Suite display the message: <i>Page cannot be displayed.</i></p>	<p>See <i>Changes to Network Interface Bindings</i> on page 26.</p>

Situation	Message or Symptom	Explanation/Resolution
Stopping	Ending jobs from Gentran Integration Suite when a hard stop is not successful.	<p>Explanation</p> <p>There was a problem during the installation process or the subsystem was not defined correctly.</p> <p>Resolution</p> <ol style="list-style-type: none"> 1 Key in WRKACTJOB and locate the job that didn't end successfully. 2 Press F11 twice to obtain the job number that you want to end. 3 Press F3 to end the WRKACTJOB panel. 4 Key in QSH to enter Qshell mode. 5 Key in ps and press Enter. 6 Locate the pid number that corresponds to job number from the WRKACTJOB panel. 7 Key in kill -kill <pid number> 8 Review the install log to determine the error and resolution. If the error is due to: <ul style="list-style-type: none"> ◆ A problem with the installation of Gentran Integration Suite, then delete the <i>install_dir</i> and install Gentran Integration Suite again. ◆ The job queue having 1 as the maximum number of active jobs in the subsystem, then either change the subsystem that you start Gentran Integration Suite in, or change the number of maximum active jobs.

Post-Upgrade Processes

Configuring ASAPROUT

If you are using iSeries, perform the following steps to configure ASAPROUT:

1. Start Gentrans Integration Suite 4.3.
2. Log into Gentrans Integration Suite as a user with administrative rights.
3. From the **Administration** menu, select **Operations > System > Support Tools > SQL Manager**.
4. Type, or copy and paste, the following SQL command in the command box:


```
drop procedure ASAPROUT
```
5. Click **Execute**.
6. Clear the command box.
7. Copy and paste the following SQL command in the command box, ensuring the entire command is on a single line:

```
CREATE PROCEDURE ASAPROUT ( IN generationID VARCHAR(255) ) LANGUAGE SQL P1: BEGIN
DECLARE ruleID VARCHAR(255); DECLARE mailboxID INTEGER; DECLARE messagePattern
VARCHAR(255); DECLARE messageID INTEGER; DECLARE actionType VARCHAR(255); DECLARE
processName VARCHAR(255); DECLARE userID VARCHAR(255); DECLARE contractName
VARCHAR(255); DECLARE contractID VARCHAR(255); DECLARE at_end SMALLINT DEFAULT 0;
DECLARE not_found CONDITION FOR SQLSTATE '02000'; DECLARE actionsets CURSOR WITH
RETURN FOR SELECT RULE_ID, MESSAGE_PATTERN, MESSAGE_ID, MAILBOX_ID, ACTION_TYPE,
PROCESS_NAME, USER_ID, CONTRACT_NAME, CONTRACT_ID FROM MBX_ACTIONSET WHERE
GENERATION=generationID ORDER BY RULE_ID; DECLARE rules CURSOR WITH RETURN FOR
SELECT R.RULE_ID, MATCH_MBX.MAILBOX_ID,UPPER(PATTERN.MSG_NAME_PAT), 'Contract' AS
ACTION_TYPE, CONTRACT.WORKFLOW_NAME AS PROCESS_NAME, ACTION.USER_ID,
CONTRACT.OBJECT_NAME AS CONTRACT_NAME, CONTRACT.OBJECT_ID AS CONTRACT_ID FROM
MBX_RULE R, MBX_PATTERN PATTERN, MBX_CONTRACT_ACT CONT_ACTION, MBX_ACTION ACTION,
SCI_CONTRACT CONTRACT, MBX_MATCH_MBX MATCH_MBX WHERE R.RULE_ID = PATTERN.RULE_ID
AND R.RULE_ID = ACTION.RULE_ID AND CONT_ACTION.RULE_ID = R.RULE_ID AND
MATCH_MBX.RULE_ID = R.RULE_ID AND CONT_ACTION.CONTRACT_NAME=CONTRACT.OBJECT_NAME AND
R.EVALUATE_ASAP > 0 UNION SELECT R.RULE_ID,
MATCH_MBX.MAILBOX_ID,UPPER(PATTERN.MSG_NAME_PAT), 'New_Proc' AS ACTION_TYPE,
NP_ACTION.PROCESS_NAME, ACTION.USER_ID, '' AS CONTRACT_NAME, '' AS CONTRACT_ID
FROM MBX_RULE R, MBX_PATTERN PATTERN, MBX_NEW_PROC_ACT NP_ACTION, MBX_ACTION
ACTION, MBX_MATCH_MBX MATCH_MBX WHERE R.RULE_ID = PATTERN.RULE_ID AND R.RULE_ID =
ACTION.RULE_ID AND MATCH_MBX.RULE_ID = R.RULE_ID AND NP_ACTION.RULE_ID = R.RULE_ID
AND R.EVALUATE_ASAP > 0; DECLARE CONTINUE HANDLER FOR not_found SET at_end = 1;
```

```

OPEN rules; asap_loop: LOOP SET at_end = 0; FETCH rules INTO ruleID, mailboxID,
messagePattern, actionType, processName,userID,contractName,contractID; IF at_end <>
0 THEN LEAVE asap_loop; END IF; INSERT INTO MBX_ACTIONSET (RULE_ID,
MESSAGE_PATTERN, MESSAGE_ID, MAILBOX_ID, ACTION_TYPE, PROCESS_NAME, USER_ID,
CONTRACT_NAME, CONTRACT_ID, GENERATION ) SELECT ruleID, messagePattern,
MSG.MESSAGE_ID, mailboxID, actionType, processName, userID, contractName, contractID,
generationID FROM MBX_NEEDS_ROUTING NEEDS_ROUTING, MBX_MESSAGE MSG,
MBX_ROUTING_GNR8N GNR8N WHERE NEEDS_ROUTING.MESSAGE_ID= MSG.MESSAGE_ID AND
NEEDS_ROUTING.GENERATION < GNR8N.GENERATION AND (MSG.MAILBOX_ID=mailboxID or
mailboxID is null) AND UPPER(MSG.MESSAGE_NAME) LIKE messagePattern ESCAPE '|'; END
LOOP asap_loop; CLOSE rules; END P1

```

8. Click **Execute**.

Adding Third-Party Libraries

If you added third-party libraries to configure adapters for the previous release, you need to add each of the libraries again after you complete the upgrade process for release 4.3. See the documentation for each third party adapter you use.

Configuring Services and Adapters

You may need to reconfigure services and adapters after an upgrade. During an upgrade, packages for services and adapters are reprocessed to update the service configurations.

After an upgrade, the configurations of default adapters and services are re-set to their default configurations. This includes directory paths, which are restored to their default paths. You need to reconfigure those adapters and services, which include, but are not limited to:

- ◆ All default FTP adapters
- ◆ All default SFTP adapters
- ◆ OdetteFTP Adapter
- ◆ SAP Suite Adapter
- ◆ SWIFTNet Client Service
- ◆ SWIFTNet Server Adapter

If you modified the standard configuration for a service or adapter, you may need to reconfigure or reactivate the service or adapter following an upgrade. You may also need to reconfigure adapters that used directories or scripts in the installation directory of your previous release.

Examples of services and adapters that commonly need to be reconfigured following an upgrade include:

- ◆ SyncEngine HTTP Server adapter
- ◆ Federation adapter
- ◆ FTP adapter

- ◆ System services, like the Alert service and the BP Fault Log adapter

These are just examples. Always check the configuration of your adapters following an upgrade.

The following adapters need special consideration following an upgrade:

- ◆ *JDBC Adapter and Lightweight JDBC Adapter* on page 35
- ◆ *File System Adapter and Command Line2 Adapters* on page 37

JDBC Adapter and Lightweight JDBC Adapter

Storage locations of the database pool properties that allow the JDBC adapter and the Lightweight JDBC adapter to communicate with your external database have been streamlined. The `poolManager.properties` file has been eliminated and some of its pool properties are now included in the `jdbc.properties` file, along with some new properties. You will need to manually update your existing `jdbc_customer.properties.in` file to add some new database pool properties. If you do not have a `jdbc_customer.properties.in` file, create one since `customer.properties` are not affected by product updates. The specific actions necessary depend on your current installation.

Upgrading from Gentran Integration Suite 3.0

If you are upgrading from version 3.0 and you used the JDBC adapter or the Lightweight JDBC adapter in that version, perform the following steps:

1. Save a copy of the `jdbc.properties` file and the `poolManager.properties` file from the earlier system. You will need any properties settings you customized for your external database.
2. Set up your Lightweight JDBC adapter or JDBC adapter according to the instructions in the *Lightweight JDBC Adapter* topic or the *JDBC Adapter* topic in Gentran Integration Suite Documentation site.

Upgrading from Gentran Integration Suite 3.1

If you are upgrading from version 3.1 and you used a `jdbc_customer.properties.in` file in that version, perform the following steps:

1. Copy the `jdbc_customer.properties.in` file from Gentran Integration Suite 3.1 installation to the `install_dir/properties` directory in Gentran Integration Suite 4.3 installation. You will edit this copied file in the following steps.
2. Open the `install_dir/properties/jdbc_customer.properties.in` file in a text editor.

3. Add the following properties:

Note: In the following property names, replace *databasePool* with the name of the pool.

Property	Description
<i>databasePool.factory</i>	Always enter: <code>com.sterlingcommerce.woodstock.util.frame.jdbc.ConnectionFactory</code> .
<i>databasePool.behaviour</i>	Sets the behavior that a connection pool exhibits when it runs out of connections. This property replaces the <i>databasePool.onEmpty</i> property in the former <i>poolManager.properties</i> file. Valid values: <ul style="list-style-type: none"> ◆ 0—The pool returns, indicating to the software to abort its current action and try again later. This value corresponds to the value return in the <i>databasePool.onEmpty</i> property. ◆ 1—The pool waits the number of milliseconds specified in <i>databasePool.waittime</i> for a connection to be returned before indicating to the software to abort and try again. This value corresponds to the value wait in the <i>databasePool.onEmpty</i> property. ◆ 2—The pool creates a buffered connection (a connection above the size specified in <i>databasePool.maxsize</i>). When using a setting of 2, the maximum number of connections for the pool is the value specified for <i>databasePool.maxsize</i> plus the value specified for <i>databasePool.buffersize</i> connections. This allows connections to be created under heavy demand. This value corresponds to the value new in the <i>databasePool.onEmpty</i> property.
<i>databasePool.buffersize</i>	Number of extra connections that the connection pool can create above the value specified for <i>databasePool.maxsize</i> to improve handling of unanticipated loads on the system. This property is only used if <i>databasePool.behaviour</i> is set to 2.
<i>databasePool.maxsize</i>	Maximum size of the database pool. This property was previously contained in the <i>poolManager.properties</i> file. This value must not exceed the value specified for the <i>databasePool.maxconn</i> parameter in the <i>jdbc.properties</i> file.
<i>databasePool.initsize</i>	Initial size of the database pool. This property was previously contained in the <i>poolManager.properties</i> file.
<i>databasePool.waittime</i>	Amount of time (in milliseconds) to wait for a connection to become available before indicating to the software to abort the current action and try again later. This property is only used if <i>databasePool.behaviour</i> is set to 1.

For more information, see the *Lightweight JDBC Adapter* topic or the *JDBC Adapter* topic on Gentran Integration Suite Documentation web site.

4. Run the `setupfiles.sh` utility located in the *install_dir/bin* directory of Gentran Integration Suite installation directory.
5. Stop and restart Gentran Integration Suite to use the updated settings.

If you are upgrading from version 3.1 and you used the JDBC adapter or the Lightweight JDBC adapter but you did not use a *jdbc_customer.properties.in* file in that version, perform the following steps:

1. Save a copy of the *jdbc.properties* file and the *poolManager.properties* file from Gentran Integration Suite 3.1 installation. You will need any properties settings you customized for your external database.

2. Set up your Lightweight JDBC adapter or JDBC adapter according to the instructions in the *Lightweight JDBC Adapter* topic or the *JDBC Adapter* topic in Gentran Integration Suite Documentation site.

File System Adapter and Command Line2 Adapters

You must configure your File System and Command Line2 adapters before you remove the previous release directory. Reconfigure any File System and Command Line2 adapters that were configured to use directories or scripts in the installation directory for the previous Gentran Integration Suite release. Ensure that you create new directories and save scripts outside of the release 4.3 installation directory and edit each configuration to use the appropriate directories and scripts.

Note: Creating directories and saving scripts outside of the release 4.3 installation directory makes future upgrade processes easier.

Note: As of Gentran Integration Suite 4.3, the Command Line2 adapter has replaced the Command Line adapter. To replace the Command Line adapter, follow the instructions in *Command Line Adapter* on page 37.

Command Line2 Adapter

If you are using the Command Line2 adapter and have located the CLA2Client.jar file anywhere other than the default location, you must replace it with the new version. For information about the default location and how to start the Command Line2 adapter, see the Command Line2 adapter information in the online Documentation site.

If you are upgrading to Gentran Integration Suite 4.3 from a version lower than 4.0.1 and are using the Command Line2 adapter, you must update the version of the CLA2Client.jar file with the CLA2Client.jar located in the *install_dir/client/cmdline2* directory. If you installed the CLA2Client.jar file anywhere other than the default location, you must replace each copy of the file with the new version. If you only installed it in the default location, the update occurs automatically during the upgrade process.

Command Line Adapter

If you are upgrading to Gentran Integration Suite 4.3 from a version prior to 4.0 and are using the Command Line adapter, you must update the version of the CLAClient.jar file with the CLA2Client.jar located in the *install_dir/client/cmdline2* directory. If you installed the CLAClient.jar file anywhere other than the default location, you must replace each copy of the file with the new version. If you only installed it in the default location, the update occurs automatically during the upgrade process.

Note: CLA instances are now pointing to the CLA2 Service definition. After importing old service instances of CLA onto Gentran Integration Suite 4.3, you need to reconfigure the imported CLA services to re-set the Remote Name and Remote Port service configuration parameters. For more information, refer to the documentation for the Command Line Adapter and Command Line2 Adapter.

Restoring Performance Tuning Configuration

To restore your original performance tuning configuration to the new release, Gentran Integration Suite provides the Performance Tuning Wizard. You use the wizard to re-enter the settings you saved earlier.

Note: Before completing this procedure, see *Final Upgrade Notes* on page 38.

To restore the performance tuning configuration:

1. From Gentran Integration Suite **Administration** menu, select **Operations > System > Performance > Tuning**.
2. Under Edit, click **Go!**
3. Complete the Performance Tuning Wizard, using the settings you obtained from the previous release.

Final Upgrade Notes

The upgrade is complete. At this point, you should download and apply the latest maintenance update from Support on Demand before using Gentran Integration Suite.

Note: The upgrade process enables services that might have been disabled before the upgrade. If you want to disable these services again, you must disable them in Gentran Integration Suite 4.3 after the upgrade process.

After you upgrade, do not use the previous release of Gentran Integration Suite. However, you should maintain your backup copy for future reference.

For additional information, see the following sections:

- ◆ *Changes to Network Interface Bindings* on page 38
- ◆ *Advanced File Transfer Tab* on page 40
- ◆ *Reconfiguring Archive Settings* on page 40
- ◆ *Correcting Missing Manager IDs* on page 40

Changes to Network Interface Bindings

To increase the security of the Administrator Console user interface, Gentran Integration Suite version 4.3 binds only to specific network interfaces. After upgrading, if the previous URL for Gentran Integration Suite returns *Page cannot be displayed*, you can adjust property settings to correct the problem.

1. On the server where Gentran Integration Suite resides, edit the `noapp.properties.in` file.

2. Locate the **admin_host** parameter. The default settings are as follows:

hostname1 is the name of primary network interface, the one given highest priority by Gentran Integration Suite.

localhost is the name of the network interface on the server where Gentran Integration Suite resides.

Default entries

```
admin_host.1    = hostname1
admin_host.2    = localhost
```

3. Correct the parameters.

- ◆ If no interface is being displayed, edit *hostname1* so that it correctly identifies the primary network interface that accesses Gentran Integration Suite.
- ◆ If an additional network interface needs to access Gentran Integration Suite, add an additional *admin_host* entry, as shown below.

Edited entries

```
admin_host.1    = hostname1
admin_host.2    = localhost
admin_host.3    = hostname2
```

4. Stop Gentran Integration Suite.
5. Run the `setupfiles.sh` utility located in the *install_dir/bin* directory.
6. Restart Gentran Integration Suite to use the updated settings.

For the Dashboard user interface, Gentran Integration Suite version 4.3 provides unrestricted binding to network interfaces through the perimeter server. To restrict access to the Dashboard user interface, you can adjust property settings so that only one network interface accesses Gentran Integration Suite.

1. On the server where Gentran Integration Suite resides, edit the `perimeter.properties.in` file.
2. Locate the **localmode.interface** parameter. The default setting is unrestricted, as shown below.

Unrestricted Setting (Default)

```
localmode.interface=*
```

3. To restrict access to the Dashboard, enter the network interface that you want Gentran Integration Suite to support.

Restricted Setting

```
localmode.interface=hostname1
```

4. Stop Gentran Integration Suite.
5. Run the `setupfiles.sh` utility located in the *install_dir/bin* directory.
6. Restart Gentran Integration Suite to use the updated settings.

Advanced File Transfer Tab

The Advanced File Transfer tab in the Dashboard interface will not be enabled by default after an upgrade installation of Gentran Integration Suite 4.3. You will need to configure the Dashboard to enable the tab.

If you have a license for Advanced File Transfer, perform the following steps to add the Advanced File Transfer tab:

1. Log in as **Admin**.
2. Click **Manage Layout**.
3. Click **Add Pane**.
4. Enter the following name:
Advanced File Transfer
5. Click **Apply**.
6. Click the link for the new **Advanced File Transfer** tab.
7. Click **Add Portlet**.
8. Select the Add box for **Advanced File Transfer Management**.
9. Click **Apply**.
10. Select **Clear Borders and Title** from the Decoration menu.
11. Click **Apply**.
12. Click **Save and Apply**.

Reconfiguring Archive Settings

The upgrade does not automatically reconfigure the archive configuration. You must reconfigure the Backup Directory setting in Archive Manager after an upgrade.

To reconfigure your Archive settings, use the following procedure:

1. From the Administration menu, choose **Operations > Archive Manager**.
2. Under Configure Archive Settings, click **Go!**
3. If a message displays about the UI Lock, click **OK** to continue.
4. Click **Next**.
5. Update the Backup Directory field with the correct path information:
6. Click **Save**.
7. Confirm the settings and click **Finish**.

Correcting Missing Manager IDs

If you created a Manager ID with no corresponding User ID in your previous version of Gentran Integration Suite, the Manager ID may be missing after upgrading to Gentran Integration Suite 4.3. If this occurs, create a user in the system with a User ID that matches the missing Manager ID.


Accessing User Documentation for Gentran Integration Suite

The user documentation is available via an online documentation site on the Web. Providing the documentation in an online environment allows for frequent updates of content based on user feedback and usability.

We also understand the need for a printed copy of documentation. You can print topics of information using your Internet browser, or you can download documents in PDF format. You also have the option to request a documentation CD.

Using the Online Documentation

The documentation for Gentran Integration Suite is located on the Sterling Commerce Documentation web site. You can type a word or phrase and search the entire library for information. Or you can move through a hierarchy of contents pages to identify the topic you want. After you find the topic you want, you can read it online or print it using your browser's Print function.

To access the Documentation site, from within Gentran Integration Suite or one of its tools, select the Help  icon. (Note that the application must reside on a computer that supports Internet access and an Internet browser.)

You can also access the Documentation site by opening your Internet browser and typing the following URL:

<http://www.sterlingcommerce.com/Documentation/GIS43/homepage.htm>

Documentation Available in PDF Format

The online documentation includes documents in PDF format that you can download. To download PDF documents, click the *Documentation in PDF Format* link from the main online documentation page.

Requesting a Documentation CD

You can request a CD that contains all the documentation found on the Documentation site. To submit a request, go to the following URL:

http://support.sterlingcommerce.com/forms/Gentran_GIS_UpgradeRequest.aspx

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