SmartStream®

Applying Service Packs and Solutions

Release 6.5

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1 Applying Service Packs and Solutions

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Overview

Geac Enterprise Solutions™ (Geac®) responds to customers' software requests and problems by providing corrective code. The solution may be delivered as a service pack (a group of solutions being addressed), a cumulative solution (a group of application-specific solutions), or an individual critical solution attached to a solution or a customer's case on AnswerLink.

A solution is made up of a set of related files that contain corrective code libraries (.ccl) for that solution. All the files in the solution share the first six numbers of the solution number followed by an assigned product code and a language code. For example, solution 113204pe.ccl contains corrective code attached to solution 113204, for Ledger (p), in English (e). For a complete listing of naming conventions for corrective code library files, see Solution 131165 on AnswerLink.

The solution may contain separate corrective code libraries for

- Different products
- Base code corrections (non-language specific)
- Language specific corrections.

Each solution applies changes to the servers and client workstations that need to be updated. Servers that need to be updated may include the file server, database server, SmartStream Connect™ server, and Job Scheduler server.

The Install utility and the Solution Delivery program automatically determine the steps that are required for the solution you are applying based on the settings in your dbsinst.ini and env.ini files.

The application of a solution may require the input or involvement of several members of your organization. Your SmartStream administrator, database server administrator, and SmartStream Connect and Job Scheduler administrator should perform all the procedures except those that the user of the client workstation can perform.

About Service Packs

A service pack contains a group of individual solutions and is delivered on a regular maintenance schedule. The service pack includes new solutions as well as solutions that were delivered previously. The Install utility, which is delivered with the service pack, applies any service pack solutions that were not applied earlier.

The Install utility also automatically copies any new files needed by the Solution Delivery program to the file server.

Service packs include

- Special instructions for applying the service pack
- Products and languages affected by the service pack
- Solutions addressed in this service pack, by product
- File space requirements.

Service packs may be delivered on a CD-ROM or through AnswerLink, and supporting documentation is published on DocLink.

You use the Install utility to apply service packs.

About Cumulative Solutions

A cumulative solution is a collection of application-specific solutions that are bundled for the convenience of the customer. They are delivered and applied between service packs.

Cumulative solutions may be delivered on a CD-ROM or through Answerlink. The format in which a cumulative solution is packaged determines whether you run the Install utility or the Solution Delivery program to apply it.

If it is delivered...	Apply the cumulative solution using the...
On a CD	Install utility (setup.exe on CD).
Through AnswerLink in Install format	Install utility (setup.exe delivered with the cumulative solution).
Through AnswerLink in individual .ccl files format	Solution Delivery program.

Note: Each cumulative solution includes instructions about whether to use the Install Utility or Solution Delivery program to apply it. Generally, if the solution includes a setup.exe, use it to install the solution; otherwise, use the Solution Delivery program setup.exe in the *n:**geac***patch** folder on the SmartStream file server, where *n:**geac* is the network drive and directory where SmartStream is installed.

About Individual Solutions

Individual solutions contain corrective code for a specific customer's critical requests. They are applied between service packs and cumulative solutions. The individual solutions are attached to a customer's case on AnswerLink and then included in the next service pack.

Use the Solution Delivery program in the *n:**geac***patch** folder on the SmartStream file server to apply individual solutions.

Applying a Service Pack or an Individual Solution

File Server Directory

The File Server Setup program copies files to your file server. This document refers to your file server as *n:\geac*. This is a generic reference to the network drive and directory where SmartStream is installed.

Overview

Perform the following tasks when you apply service packs, cumulative solutions, and individual solutions to your SmartStream environment:

Task	Description
1	Prepare and validate your environment.
2	Start the Install utility or the Solution Delivery program to apply the solution.
3	Continue with common solution processing.
4	Verify the application of the solution.
5	If applicable, apply the updates to the user-defined accounting key.
6	Update reporting files.
7	Refresh client workstations.
8	Update Job Scheduler servers.
9	Update Mail Gateway.
10	Update SmartStream Builder client workstation.
11	Perform any other processing options.

Multiple Environments

With SmartStream 6.5, you can install multiple database environments from a single file server. If you have multiple environments, you must run the service pack or solution for each environment.

When you apply solutions to your test database server but not your production database server, you may encounter date-mismatch errors. For information about resolving these errors, see the Troubleshooting section.

Prepare and Validate Your Environment

Before you apply a solution, you must successfully complete the tasks in this section.

Version

You must be using the correct version of SmartStream. For information about the version to which this solution applies, see the Solution Prerequisites section in the solution document.

Prerequisite Solutions

Because of the highly integrated nature of SmartStream products, some solutions may require you to apply prerequisite solutions before applying them.

If a prerequisite solution has not been applied, the Solution Delivery program informs you and stops processing that solution.

Prerequisite solutions are documented in the Solution Prerequisites section in the solution document.

Backup

It is strongly recommended that you back up your file server, database server, SmartStream Connect server, and Job Scheduler server before applying any solutions.

If it is necessary for you to undo a solution after applying it, you need to restore from these backups.

File Server

Perform the following tasks to prepare and validate your file server.

dbsinst.ini, version.ini, and env.ini

The Solution Delivery program is controlled by settings in the dbsinst.ini, version.ini, and env.ini files. These files contain information collected by the Database Server Setup program as the system is installed.

The dbsinst.ini file is located in *n:**geac*. For each environment, the Database Server Setup program creates subdirectories one level below the **\instenv** directory. The directory is named **env***x* where *x* is the sequential number assigned by the Database Server Setup program. Make sure that the information in the following sections correctly reflects your installation.

dbsinst.ini

Entry	Description
[COPY]	Used to retrieve the installation version.
Version=	SmartStream Version = 6.5
[SYSTEM]	This section contains server settings.
Sql_type	MSS=Microsoft SQLServer SYB=Sybase SQLServer
[LANGUAGE]	This section is for language installations.
LIST=	Lists the languages installed. Comma delimited for multiple languages.
EN=	Path indicating where the English language kit is installed. (For SmartStream 6.5 the English language kit is installed in the same location as the base.)
FR=	Path indicating where the French language kit is installed.
ES=	Path indicating where the Spanish language kit is installed.
BASE=	Path indicating where the base language is installed.
PRIMARY LANG=	The language used by the system administrator for installation scripts.

version.ini

Entry	Description
[VERSION]	This section contains the version description.
Version=	The service pack version installed. Used to retrieve the installation version. **Example** For SmartStream 6.5 Service Pack 2, the entry is Version=SmartStream 6.5.02

env.ini

Entry	Description
[ENVIRONMENT]	This section contains the environment description.
DESCRIPTION=	Description of the environment.
[SYSTEM]	This section contains server settings.
PRIMARY_SERVER=	The name or IP address of the primary database server.
JobServer=	The name of the Job Server environment. Comma delimited for multiple Job Server environments. **Note:** This entry is blank for Windows NT, SmartStream Connect, and/or Job Scheduler servers.
[*Product_Name* **]**	Where *Product_Name* is an installed product. There is a section for each installed product.
SERVERS=	The name or IP address of the database server. Comma delimited for multiple servers. The first one listed will be the primary server for that product.
[*Job_Server_Name]*	Where *Job_Server_Name* is the name in the JobServer setting above. There is one section for each entry in the JobServer entry above. **Note:** This section is not present for Windows NT, SmartStream Connect, and/or Job Scheduler servers.
platform_type=	UNIX™ platform: AIX, SUN, HP
type=	BATCH or CONNECT.
host=	Name of the UNIX or NT server.
userid=	User ID of the user who installed the UNIX programs.
path=	Path to UNIX or NT Job Server programs.

restart.ini

A restart.ini file is generated in the *n:**geac***patch\env***x** directory (where *n:**geac* is the drive and directory where SmartStream is installed and *x* is the environment) when the Solution Delivery program stops for any reason during the apply process.

If the Install utility finds a restart.ini file containing an incomplete solution that is not one of the solutions included in the service pack or cumulative solution being applied, it stops. You must complete the installation of the incomplete solution before starting the Install utility again.

Solution Delivery Program

The following files for the Solution Delivery program must be in the *n:**geac***patch** directory where *n:**geac* is the location where SmartStream is installed on the file server.

- setup.bmp

- fam2prod.cfg
- famdbms.cfg
- prodchk.cfg
- dbspatch.dll
- setup.exe
- patch.lit
- prodnams.lit
- refresh32.exe
- langbase.txt
- sysfile.ini
- sysinstl.ini
- data1.cab
- data1.hdr
- data2.cab
- icomp.exe
- ikernel.ex_
- layout.bin
- setup.inx
- user.bmp
- zip.exe
- setup.ini

Do not change these files.

Because the Install utility automatically copies any new Solution Delivery programs and files to the *n:\geac***patch** directory, it is important to apply service packs or cumulative solutions packaged with the Install utility by running the Install utility setup.exe delivered with them. Depending on the release you are applying, the setup.exe program is in the **servpack** or **install** directory, or in the root of the service pack or cumulative solution.

DBMS Directory

Verify that the following files are in the *n:\geac***dbms** directory:

- message.txt
- wjamit.exe

Verify that the following files are in the *n:\geac***bin32** directory:

- prog32.dll

- rexec32.dll

File Server Space Requirements

Make sure you have sufficient file space on your network file server to apply a solution.

File Server Access

Make sure the client workstation that you are using to apply solutions can read and write successfully to the file server location where SmartStream resides. Because the Install utility and Solution Delivery program read, execute, and write to most of the directories where SmartStream is installed, the workstation that you are using to apply the solutions must have these privileges.

Client Workstation

Perform the following tasks to prepare and validate the client workstation you use to run the Install utility or Solution Delivery program.

Operating System

The workstation you use to apply the solution must be running an operating system that Geac supports. The supported installation environments are listed in the Installation Workstation Requirements section of the Supported Technical Environments topic on the AnswerLink Bulletin Board under SmartStream/Release Information/*release number*.

Memory Requirements

The workstation used to apply solutions must have more than 400 KB of available conventional memory after the network software, drivers, netlib, and environmental variables are loaded and set. This amount of memory is necessary to run the CD Install utility and Solution Delivery program successfully.

SmartStream Client Installation

To run the user-defined accounting key (UDAK) configuration process, the workstation used to apply the solution must have had a SmartStream 6.5 client installation successfully completed on it.

PowerBuilder .dll Files

To run the user-defined accounting key configuration process, you must be able to access the .dll files for PowerBuilder® 5.0.04.

Verify that you have one of the following settings in your system variables path for the environment:

Network: *n*:*geac***SS**	Where *n* is the network drive where SmartStream is installed.
Client: *c*:*geac*	Where *c* is the local drive where SmartStream client is installed.

Connection to the Database Server

Make sure the client workstation that you are using to apply solutions can successfully connect to all your database servers.

Database	Tool to use
Sybase® Adaptive Server™	Open Client 32-bit utilities
Microsoft® SQL Server	Microsoft Client 32-bit utilities

See the topic, Establishing Connectivity in the SmartStream Environment, in the SmartStream *Installation Guide* for more information.

Verifying the Connection

You can verify the connection to the database by opening a connection using an ISQL utility or Query Analyzer.

Execute the following command to test the connection:

```
select   @@servername
```

This command returns the name of your database server.

Database Servers

Perform the following tasks to prepare and validate the database servers.

Database Server Information

The Solution Delivery program updates database servers with corrective code. Because some solutions may update the master database, you must use the system administrator ID (sa) when applying solutions.

Make sure you have the following information for the SmartStream database servers being updated:

- Name of the database servers
- Password for sa

Verify whether these values are case sensitive in your environment.

Sybase Row-Level Locking

Some service packs, cumulative solutions, and individual solutions contain updates to one or more tables that require bulk copying using .bcp files to preserve existing data. In these cases, you must verify whether row-level locking is enabled on the affected tables. If row-level locking is enabled, complete the following procedure to disable this feature during the solution installation for each affected table in the database family:

Step	Action
1	Reset the lock scheme from row level to page level using the alter table command. For syntax information, see the Sybase documentation.

Step	Action
2	Drop and recreate the associated triggers for the table using the SmartStream wjamit utility. Specify the CREATE_TRIGGERS section in the database .prf file of the appropriate table family. To ensure that the triggers are dropped and recreated correctly, see the instructions in the wjamit Utility section of Appendix A, Utilities, in the SmartStream *Installation Guide*. **Note:** If this step is not completed, the triggers will fail to execute properly, resulting in integrity errors.

After the solution is successfully applied, you can enable row-level locking and drop and recreate triggers again. To determine whether the solution contains table updates, see the documentation for the solution.

UNIX Server

If you are processing in a UNIX environment and the solution contains updates to UNIX servers, the Install utility and the Solution Delivery program use the TCP/IP exec (rexecd) service to copy files to the UNIX servers.

Validate Connection to the UNIX Server

To validate the connection to the UNIX server, run the rexec.exe Remote Execution Command program:

Rexec [hostname] –l [login id] [command] where

Hostname = UNIX_servername

Login id:=User ID of the user applying the solution

Command=pwd

If you are prompted for a password, enter the password of the login ID.

Result: The current directory name is displayed.

Troubleshooting

If the preceding step failed, see the following information before continuing the solution installation process.

- You must use a TCP/IP product that is compliant with WINSOCK. For the current list of supported technical environments, see the Supported Technical Environments topic on the AnswerLink Bulletin Board under SmartStream/Release Information/*release number*.
- If you changed the UNIX user ID to one other than the one displayed in the env.ini file, you must ensure that user ID is defined in the **/etc/passwd** file.

- Make sure the following files are installed and have the IP address and name of the user who is applying the solution. For example:
  999.999.999.999 *username*
  - An .rhosts file in the home directory of the user who is applying the solution.
  - A hosts.equiv file in the ***/*etc** directory.
  - If this is a RISC 6000 or SUN UNIX environment, a .hosts file in the ***/*etc** directory.
- See the checklist in Solution 15654.

Disable Automatic Refresh

SmartStream Client Workstations

Geac recommends that you disable the automatic refresh function. Ensure that the Patch_Enable option is set to 0 in all dbserver.ini files, whether they reside on the file server or client workstation. This prevents the client workstations from being refreshed until all of the solutions are applied and verified.

Special Instructions

Review the Special Instructions section for each product in the solution. This section contains information about additional tasks to perform before applying the solution.

Start the Install Utility

The Install utility automatically

- Updates your system with the Solution Delivery program files necessary to apply solutions
- Runs the Solution Delivery program for all solutions that have not been previously applied if multiple solutions are being delivered.

When applying a service pack or a cumulative solution that contains an Install utility setup.exe, run that setup.exe, not the one for the Solution Delivery program in the *n:\geac***patch** directory.

Process

Use the following process to apply a service pack or cumulative solution.

Step	Action
1	Run Install utility setup.exe. **Result:** The Install Utility welcome window is displayed.
2	Choose Next. **Result:** The Install utility prompts you for the location of the directory where SmartStream is installed on the file server. For example: **n:\geac**.
3	Enter the location and choose Next. **Result:** ▪ The Install utility copies any new files required by the Solution Delivery program to the file server. ▪ The Install utility then starts the Solution Delivery program passing all the solutions included in the service pack or cumulative solution. ▪ The Solution Delivery program goes through each solution, one at a time (beginning with the oldest), and determines which solution members were previously applied. Any solution member that has not been applied is applied. **Note:** To complete this task, the Solution Delivery program uses the resapply.txt file, which is updated each time a solution member is successfully applied. This file resides in the *n:\geac***patch\ss**\ directory. The Client Refresh process copies this file to each local workstation allowing each user to know what solutions were applied. ▪ If the Solution Delivery program stops for any reason, it generates a *n:\geac***patch\env***x**\restart.ini file for the environment being updated. Start the Install utility again, and the utility begins with the solution where it stopped.

Step	Action
4	If multiple environments were installed from one file server, select the environment to update and Choose Next. **Result**: The Solution Delivery program starts.
5	Go to Step 1 in the Continue Common Solution Processing procedure.

Start the Solution Delivery Program

The Solution Delivery program is used to apply cumulative solutions and single solutions packaged as .ccl files only.

Location of the .ccl Files

The solution corrective code library files (.ccl) can be applied from the CD (if the solution is delivered on CD), or you can copy the solution .ccl files to the *n:\geac***patch** directory on the file server. If the Solution Delivery program cannot find the solution in the *n:\geac***patch** directory, it prompts the user for the correct location.

Use the following procedure to apply a solution.

Step	Action
1	Run the setup.exe that resides in the *n:\geac***patch** directory where *n:\geac* is the target drive and directory on the file server where SmartStream was installed.
2	If the Solution Delivery program finds only one environment installed, it displays a confirmation message with the environment description from the env.ini file. If this is the correct environment, choose **Yes** to continue. If multiple environments have been installed, a list of installed environments is displayed. Select the environment to update and choose Next.
3	Enter the number for the solution you are applying to your environment. If you have previously applied any member of the solution, you are asked if you want to reapply the solution. Choose Next.
3	If the solution members are not found in the *n:\geac***patch** directory, enter the path to the location of the solution members. Choose Next.
4	Go to Step 1 in the procedure in the Continue Common Solution Processing Steps section.

Continue Common Solution Processing

Use the following steps to continue processing solutions for service packs, cumulative solutions, and individual solutions.

Step	Action
1	If the solution contains database server updates, enter the following information for the database server in your SmartStream environment: ▪ User ID (the user ID must have system administrator authority) and choose Next ▪ Password and choose Next.
2	If the solution contains changes to the UNIX server, enter the following information for each UNIX server in your SmartStream environment: ▪ Userid and choose Next. ▪ Password and choose Next. **Note:** For SmartStream 6.5 Service Pack 3 and all following solutions, the user ID and password are entered on one window regardless of the operating system. **Result**: Solution Delivery program updates the file server with corrected code.
3	Does the solution have changes related to the user-defined accounting key? If yes, go to Step 4. If no, the program continues processing SQL server updates and UNIX server updates. Go to Step 11.
4	If changes affecting the user-defined accounting key information for all products (except Consolidations) are included, a message is displayed stating that the user-defined accounting key solution mode processing for All Products must be executed. Choose OK. **Result:** The User-Defined Accounting Key Log On window is displayed.
5	Enter the appropriate information in the following fields: **Server** - The primary database server you are using. **Log On ID** - The logon ID you use to sign on to the primary database server. **Password** - The password you use to sign on to the primary database server. Do not change the Processing Level option of All Products (except Consolidations) or the Run Mode option.
6	Choose OK. **Result:** The program automatically processes the user-defined accounting key changes for all products. A message is displayed stating that the user-defined accounting key configuration is complete. Before continuing, review the **dbms\udak\udak.log** file for any error that may have been detected during the configuration process.

Step	Action
7	If changes affecting the user-defined accounting key information for Consolidations are included, a message is displayed stating that the user-defined accounting key solution mode processing for Consolidations must be executed. Choose OK. **Result:** The User Defined Accounting Key Log On window is displayed.
8	Enter the appropriate information in the following fields: **Server** - The primary database server you are using. **Log On ID** - The log on ID you use to sign on to the primary database server. **Password** - The password you use to sign on to the primary database server. **Processing Level** - Choose Consolidations. Do not change the Run Mode option.
9	Choose OK. **Result:** The program automatically processes the user-defined accounting key changes for Consolidations. A message is displayed stating that the user-defined accounting key configuration is complete. Before continuing, review the **dbms\udak\udak.log** file for any error that may have been detected during the configuration process.
10	If the solution includes migration scripts (.bld files used to select data to migrate) with accounting key information, the program displays a message that the User-Defined Accounting Key Migration Script Configuration utility will run. Choose OK. **Result:** The User-Defined Accounting Key Log On window with the required information automatically retrieved is displayed and the configuration program starts. The program processes user-defined accounting key changes to the migration scripts and displays a message when processing is complete. Before continuing, review the **dbms\udak**\udakmgrt.log file for any errors that occurred during processing.
11	Choose OK. **Result:** The Solution Delivery program continues with the database server and UNIX server updates.

Step	Action
12	If you are applying a service pack or cumulative solution using the Install utility and multiple solutions must be applied, the process goes back to Step 4 for each solution being processed. After processing all the solutions, a message is displayed when the process has completed successfully. If you are using the Solution Delivery program for individual solutions, a message is displayed stating that the solution has completed successfully. Apply another solution? If yes, go to Step 2 in the procedure in the Start the Solution Delivery Program section. If no, the application of the solution is complete.

Troubleshooting

Problem	Happens with...	Solutions
The Solution Delivery program prompts you to enter the path where the solutions reside.	Cumulative solutions and individual solutions delivered as individual .ccl files	The solutions do not reside in the same directory as the Solution Delivery program (*geac***patch**). You must enter the full path to the solution .ccl files. If the problem continues after you specify the full path, copy the .ccl files into the *geac***patch** directory.
The Solution Delivery program displays a message indicating that you must apply a prerequisite solution.	Service packs, cumulative solutions, and individual solutions	Exit the program and apply the prerequisite solution. Then apply the current solution again.
The Solution Delivery program displays a message that it cannot run an intermediate file needed to proceed.	Service packs, cumulative solutions, and individual solutions	Close all Windows applications that are not essential to running the Solution Delivery program.
The Solution Delivery program displays a message that the directory path set in dbsinst.ini does not match this machine.	Service packs, cumulative solutions, and individual solutions	To match the paths in dbsinst.ini [LANGUAGE] section, change the drive mappings on the workstation that you are using to run the Solution Delivery program.
The Solution Delivery program displays a message that it cannot find the installation settings file dbsinst.ini.	Service packs, cumulative solutions, and individual solutions	The dbsinst.ini file must be in the root installation directory. You must place the dbsinst.ini file in the directory.
The Solution Delivery program displays a message that the PowerBuilder .dll files are not in your path.	Service packs, cumulative solutions, and individual solutions	For the UDAK configuration process, you must have access to the PowerBuilder .dll files in your path. Access them either from the client *geac* directory, or from the network *geac***ss** directory.
The Install utility indicates that solutions are being restarted.	Service packs and cumulative solutions packaged with the Install utility	You must completely apply all solutions in restart mode before applying the service pack or cumulative solution.
The UDAK configuration process indicates a fatal disk error.	Service packs, cumulative solutions, and individual solutions	Using PowerBuilder, choose Optimize from the Library menu to optimize the *geac***ss\udak.pbl**. Restart the resolution at Section = 2 to rerun the UDAK customization process.

Problem	Happens with...	Solutions
The Solution Delivery program displays the following message: **Cannot apply resolution set due to date mismatch or read-only attribute. Review xxxxxx.err for errors.**	Service packs, cumulative solutions, and individual solutions	Review the .err file. If the read-only attribute is set, turn it off. If the error is related to a date mismatch, a more current version of the solution may be available. Complete the following tasks: ▪ Move all files listed to a temp directory ▪ Run the Restart process ▪ Contact SmartStream Customer Service for the latest version of any solution that caused a date mismatch. Be sure to include a copy of the resapply.txt file from the **patch\ss** directory.
The Solution Delivery program displays the following message: **The Solution Apply process was unable to update at least one Windows Job Server. Please see the xxxxxx.log file for details and review Applying Service Packs and Solutions documentation for procedures on manually updating Windows Job Servers.**	Service packs, cumulative solutions, and individual solutions	The Solution Delivery program cannot find a Windows Job Server defined in the env.ini file or the user ID used to apply the solution does not have access to the Windows Job Server. The user logged on the workstation applying the solution must be set up as an administrator on the Job Server workstation so that the Solution Apply program can copy programs to the Windows Job Server. This is an informational message. When you choose OK, the Solution Apply process completes. After you finish applying the solution, review the log file shown in the message to determine which programs were not copied and copy these programs to the directory where Job Server was installed.

Verify the Application of the Solution

When you apply a solution, the Install utility and the Solution Delivery program produce a log file and error files in the *geac***patch***solution number***env***x** directory. If you find errors, use the following procedures to verify that the application was successful before updating any SmartStream client workstations.

Step	Action
1	Open the solution log file, *solution number*.log, in the *geac***patch***solution number***env***x** directory.
2	Review the log to determine what corrective code was applied.
3	Review the *xxxx*.out file for each database family to determine what corrective code was applied to the database server.
4	If the UNIX (SmartStream Connect or Job Scheduler) files were updated in the solution, go to the UNIX server directory where the updated files were copied and make sure the files have the same date and time as the corresponding files currently on the SmartStream file server.
5	If the Windows Job Servers were updated in the solution, go to the workstation and the directory where the updated files were copied and make sure the files have the same date and time as the corresponding files currently on the SmartStream file server.

If the Solution Delivery program failed, use the following information to determine the problem:

- If the Solution Delivery program fails while verifying whether the solution can be applied, it generates an error file, *solution number*.err. This error report compares the size, the date, and time of the file currently on the file server with the file included in the solution. If the date of the file on the file server is more recent than the one included in the solution, the Solution Delivery program stops.
- Review the solution log file, *solution number*.log, in the *geac***patch***solution number***env***x** directory. Determine the point at which the application of the solution failed by searching for the term Failed.
  - If the failure occurred during the copy process, then review the section for the solution started by [*solution numberpll*], where *p* is the product code and *ll* is the language code.
  - If the failure occurred as the solution was applied to the database server, then review the [SQL] section to determine which database family the error occurred in. Review the database family error file, *xxxx*.err in the *geac***patch***solution number***env***x** directory where *xxxx* is the database family. Review the error file produced by the wjamit program to determine what caused the SQL server to fail. The wjamit program also may generate a *xxxx*.rst file in the *geac***patch***solution number***env***x** directory.

– If the failure occurred as the solution was applied to the UNIX server, then review the *solution number*.log file in the [*UNIX_server*] section where *UNIX_server* is the name of your UNIX server.

Restarting a Solution

If the Install utility or the Solution Delivery program encounters an error, the program generates a restart control file. This file captures what was being done at the time of the error. After the error is corrected, the process can be restarted. The program starts the application at the point that it stopped.

This file, restart.ini, resides in the *geac***patch****env***x** directory for the environment where the solution was being applied.

restart.ini Entry	Description
[Restart]	This section lists all the solutions to restart.
ResList=*solution number*	Comma delimited for multiple solutions to restart.
[*solution number*]	The solution number listed in the ResList entry of the [Restart] section.
Section=	Section of the Solution Delivery program
	1 - File server updates
	2 - User-defined accounting key processing
	3 - SQL server database updates
	4 - UNIX server updates
RstResMember=	The value for this entry depends on the value in the Section entry as follows:
	Section 1 - Individual solution member to restart.
	Section 2 - Blank.
	Section 3 - Individual solution member of family to restart.
	Section 4 - Blank.
RstFamily=	Only used if Section=3 (SQL server database updates).
	Database family to restart.
RstSQLServer=	Only used if Section=3 (SQL server database updates).
	Database server to restart.
RstUxServer=	Only used if Section=4 (UNIX server updates).
	UNIX server being processed when the copy failed.

Example

The following example shows the restart.ini for a solution member 10987D to restart in the SQL server update section for database DBSosst:

```
[Restart]
ResList=10987

[10987]
Section=3
RstResMember=10987D
RstFamily=osst
RstSQLServer=servername
RstUxServer=
```

Troubleshooting Possible Reasons for Restart Mode

Error Message	File(s) to examine	Solution
Cannot run SELECT INTO in the database.	*table family.err*	For the database, enable SELECT INTO/BULK COPY and Truncate Log in Checkpoint.
Extract from [*member*] failed on the file [*path**filename*].	*solution number*.log	Ensure named file does not have read-only attribute set.
Unable to apply family updates for [*family*] to database server [*svrname*]	*solution number*.log *solution number.*err *solution number*.out	Check env.ini for invalid database server names for which login ID and password were prompted. Restart and provide correct database server login ID and password.
Unable to determine Net-Library error.	sql.ini/Environmental Variables	Verify that the name of the server is listed and is correct. Use WISQL to test the connection to the server.
Net-Lib protocol driver call to connect two endpoints failed.	sql.ini/Environmental Variables	Verify that the IP address for the server is correct. Use WISQL to test the connection to the server.
Login incorrect.	sql.ini/Environmental Variables	Verify that the IP address for the server is correct. Use WISQL to test the connection to the server.
Undetermined DB-Lib Error.	*solution number*.log *solution number.*err *solution number*.out	Verify user ID and password for the database server.
Unable to transfer file [*file*] to the UNIX server [*server*].	*r*.log	Verify UNIX connectivity and write access to target directory.

Reapplying a Solution

All solution members can be reapplied using the Solution Delivery program. Copy the desired solution .ccl members to the *geac***patch** directory.

Step	Action
1	Run the *geac***patch**\setup.exe program and enter the number of the solution. **Result:** The Solution Delivery program displays the following message: Solution *solution number* has already been applied. Do you want to apply it again?
2	Choose Yes. **Result:** All the members copied to the *geac***patch** directory are reapplied.

If you need to reapply only a section of the solution, use the procedure described earlier in the Restarting a Solution section.

Apply Updates to the User-Defined Accounting Key

Complete the following process if the Solution Delivery program applied changes to the user-defined accounting key data windows. The results of the most current run of the user-defined accounting key (UDAK) process are noted in the udak.log file that resides in the *geac***dbms\udak** directory. This log file can be archived in a file named **udaklog**.*xxx*, where *xxx* is a sequential number assigned each time the UDAK process is run. This archive option is controlled by the entries in the [UDAKLOG] section of the udak.ini file in the *geac***dbms\udak** directory.

Process

The following table briefly describes the process for applying updates to the user-defined accounting key:

Stage	Description
1	Review the udak.log file.
2	Make the udakpbl application the current application in PowerBuilder.
3	Regenerate the runtime library (udak.pbd).
4	Copy the new udak.pbd to the file server.
5	Run udakmgrt.exe

Review the udak.log File

Review the udak.log file, found in the target *geac***dbms\udak** directory, for any errors and for further instructions. Resolve any errors before continuing.

Make the udakpbl Application the Current Application

Before you can regenerate the Runtime Library (udak.pbd), you must ensure that the udakpbl application is the current application in PowerBuilder 5.0.04.

Step	Action
1	Open PowerBuilder 5.0.04 and click the second Application icon. **Warning**: The first two icons in PowerBuilder 5.0.04 are for Application. Be sure to click the **second** Application icon.
2	Select File and click on Open. **Result**: The Select Application Library dialog box appears.
3	Find and select udak.pbl in the \ss directory on your file server.
4	Click Open. **Result**: The Select Application dialog box appears with udak.pbl highlighted.
5	Click OK.
6	Close PowerBuilder.

Regenerate the Runtime Library

The following procedure generates a new udak.pbd with changes to the user-defined accounting key.

Warning: Ensure that all painters, except the Library painter, are closed, or PowerBuilder returns the error, **PB cannot rebuild while painter is open**.

To regenerate the runtime library, complete the following steps:

Step	Action
1	Open PowerBuilder 5.0.04, click the Library icon, and verify that your udak.pbl is highlighted.
2	Select the Library menu and click Optimize.
3	After the Library has been optimized, select the Library menu again and click Build Runtime Library. **Result**: The Build Runtime Library dialog box appears.
4	Clear the Machine Code checkbox, leave the Resource Filename field blank, and click OK. **Result**: The Library dialog box appears.
5	At the prompt, Replace existing *path*/udak.pbd?, click Yes. **Result**: The Runtime Library (udak.pbd) is built.

Tip If the Machine Code checkbox is not cleared, PowerBuilder generates udak.dll instead of udak.pbd. Repeat steps 1 through 5 and clear the Machine Code checkbox.

Language Kits You must perform this procedure for the udak.pbl in each language kit \ss directory.

Copy New udak.pbd to the File Server

After you regenerate the udak.pbd, copy the new udak.pbd into the *geac***patch\common** directory on the file server. This ensures that the client workstations are updated with the latest version the next time client workstations are refreshed.

Run udakmgrt.exe

As part of an individual solution or service pack, migration scripts (.bld files, which select data to migrate) may be replaced. Some of these .bld files select data from tables that the UDAK process has customized. For versions of SmartStream before 6.5.03, these scripts are not customized by the UDAK process that is run when

applying the solution, cumulative solution, or service pack. They are customized by *geac***udak**\udakmgrt.exe. As of 6.5.03, the Solution Apply process runs udakmgrt.exe to configure the user-defined accounting key correctly in any migration scripts included in the solution.

If you plan to run the Migration export process again and you have not applied 6.5.03, you must run udakmgrt.exe to reconfigure the migration .bld scripts.

Even if you have already migrated your data, it does no harm to run udakmgrt.exe again to ensure that all the migration .bld files are correctly configured for your user-defined accounting key.

Update Reporting .mdb Files

Overview

Corrective code for an application .mdb is delivered in a solution .mdb. These solution .mdb files are copied to the file server when a solution, cumulative solution, or service pack is applied.

Geac provides a utility (dbpush32.mdb), to copy the updated reporting objects from the solution .mdb replacing the objects in the application .mdb. The solution .mdb contains the cumulative changes since the last service pack. In the solution, cumulative solution, or service pack documentation for each product, see the MS Access Corrections section for the solution .mdb and associated target .mdb. The document also identifies those reporting objects changed for that solution, cumulative solution, or service pack. To identify earlier changes, review documentation from previously applied solutions, cumulative solutions, and service packs.

If you have customized any of the updated reporting objects, you must reapply these customizations to the updated reporting objects.

The SmartStream Administrator must perform the following procedure on the file server copy of the .mdb. Updating the copy of the file on the file server ensures that all new client installations copy the updated version of the .mdb.

Also, all SmartStream users who have already installed SmartStream must perform the following procedure to update their local copies of the .mdb. The solution .mdb is copied to the client workstation as a part of the refresh process.

Procedure

Use the following procedure to update reporting .mdb files.

Step	Action
1	Select dbpush32.mdb from the **\ss** directory.
2	Choose Run from the File menu to start the Solution Apply MDB. **Result:** The following message is displayed: **Geac Computer Systems Fix Utility**.
3	Select the solution .mdb and the target .mdb for updating. The solution .mdb and the target .mdb files are specified in the MS Access Corrections section for each product. Be careful when applying the appropriate .mdb patch to the associated .mdb. You can use the Choose button to select the solution and target .Mdb files. Choose the Backup target check box if you want to save a backup copy of the target .mdb. **Result:** The target .mdb is copied to a file using a .bkp extension. This option requires disk space on the file server twice the size of the selected .mdb. The .bkp file is placed in the same directory as the target .mdb.

Step	Action
4	Choose Apply Fixes. **Result:** The objects being patched scroll on the screen. The following message is displayed after the solution is applied to the target .mdb files: **Fixes successfully applied.**
5	Choose OK. You can print a report that lists the modules patched in this solution by choosing Generate Fix Report. When the Geac Computer Systems Fix Utility main window is displayed, choose Close or go to Step 3 and select another solution and target .mdb.
6	If this .mdb contains user-defined accounting key components, you may need to run the UDAK process to recustomize the user-defined accounting key for the .mdb. To verify whether running the UDAK process is required, see the solution document.
7	If you customized reporting objects, compare the updated reporting objects to the objects in the backup .mdb and make the customizations again.

Refresh Client Workstations

When applying a service pack or solution, the Solution Delivery program updates the file server with corrected files. Many of these updated files must be copied to all local client workstations.

Client Refresh Process in SmartStream

To facilitate SmartStream client updates, Geac has developed a Client Refresh process that automatically updates local installations of SmartStream clients when they log on to SmartStream. This section describes the process of refreshing the client.

dbserver.ini

Verify the entries in your dbserver.ini file. Usually the dbserver.ini file resides on your network file server and is shared by all SmartStream clients on a specific network. You can, however, install the dbserver.ini file locally on each SmartStream client.

Use the following procedure to set up the Client Refresh in the dbserver.ini file.

Step	Action
1	Find the dbserver.ini file. The dbserver.ini usually resides in the **\ss** subdirectory and is shared by all SmartStream clients.
2	Verify the following entry in the [DBSUpdateApps] section of your dbserver.ini file: Patch_Enable=1 The default for this entry is Patch_Enable=0.

dbs.ini

Use the following procedure to update each client workstation with SmartStream installed.

Step	Action
1	Find the dbs.ini file. Usually the dbs.ini file resides in the directory where the SmartStream client programs are installed.

Step	Action
2	Check the following entries in the [SmartStream] section of your dbs.ini file: SmartStream= The SmartStream= entry must point to the directory where the SmartStream client is installed. For example: SmartStream=*c:\geac* ClientRFDIR= The ClientRFDIR= entry must point to the patch directory on the network file server where the updated Geac client modules reside. For example: ClientRFDIR=*n:\geac***\patch** DBSERVER_INI= Ensure that the DBSERVER_INI= entry points to the file that this client uses for default database server information. For example: DBSERVER_INI = *n:\geac***\ss** These files can be updated using a standard text editor.
3	Start the SmartStream client you want to refresh.

Note: If you are using a Novell file server, do not use the Universal Naming Convention (UNC).

How the Client Refresh Process Works

Each time SmartStream is started at a client workstation, the Client Refresh process

- Compares the files in the subdirectories under the *geac***\patch** directory with the files where SmartStream is installed on the client.
- Copies a file to the client workstation if the version on the network file server is newer than the version on the client workstation.

This process ensures that all SmartStream client workstations are current.

When you start SmartStream, informational messages about files copied to the client workstation are displayed on the SmartStream logo. The process generates a file maint.txt with a list of all the files that were copied to the client.

If you are using thin client technology, see Performing a Client Refresh in the *Thin Client Installation Guide* for additional considerations.

Warning

The Client Refresh process overwrites files on client workstations with versions in the file server *geac***patch** directories.

If the *geac***patch****rpttools** directory contains Reporting Tools MDB files, back up the current client versions to preserve the objects listed below.

Name	Object Type	Object Name
reports.mdb	Table	dssMRSQLLog
	Report	MR Default Report Template
	Report	MR SubReport Template
preprcrp.mdb	Table	migLog
preprcmr.mdb	Table	migLog

Special Instructions for Refreshing Reporting Tools Only or Management Reporter Only Clients

If a client workstation does not have SmartStream (sstrm32.exe) installed, for exclusive use of reporting tools, running the refresh process is not automatic at logon through a program. For this client type, you must enable the refresh process by

1. Following the dbs.ini and dbserver.ini verification steps described earlier in this section and

2. Running refrsh32.exe directly from the *geac***patch** directory on the file server.

Note: If this refresh method returns the error: The dynamic link library PBRTF050.dll could not be found in the specified path *pathname*, you must add the file server *****geac***ss** directory to the path environment variable for the refresh process to run successfully.

Update Job Scheduler Servers

UNIX

The UNIX Job Scheduler servers are updated by the Solution Delivery program.

Windows

For versions of SmartStream before 6.5.03, you must copy updated programs for a Windows Job Server from *geac***patch\batch\ntintel** to the server directory where the Job Server is installed.

As of 6.5.03, the Solution Delivery program automatically copies programs to a Windows Job Server if the user logged on the workstation applying the solution is set up as an administrator on the Job Server workstation. If the user does not have administrator privileges, you must still copy the programs following the procedure for previous versions.

For a list of the supported Job Server environments, see the Supported Technical Environments topic on the AnswerLink Bulletin Board under SmartStream/Release Information/*release number*.

Mail Gateway Updates

Solutions that contain updated programs for the mail gateway cannot be automatically refreshed.

For SmartStream 6.5.03 and Earlier

For every mail gateway in your installation, copy the files from *geac***mailgate** on your file server to the mail gateway program directory on the workstation.

Also, verify that the [Mail Gateway] section of the dbs.ini file has settings for at least the following entries:

[Mail Gateway]
Mail Directory=
Log File=
Check Mail Interval=

The dbs.ini file is specified in the [DBS] section of the win.ini file.

For SmartStream 6.5.03 with Solution 22327 Applied

If you installed your mail gateway from enhancement Solution 22327, for every mail gateway in your installation, copy the files from *geac***mailsmtp** on your file server to the mail gateway program directory on the workstation.

Also, verify that the [Mail Gateway] section of the dbs.ini file has settings for at least the following entries:

[Mail Gateway]
Mail Directory=
Log File=
Check Mail Interval=
Mail Host=
Mail Host Port=

Update SmartStream Builder

A solution, cumulative solution, or service pack delivers replacement .pbl files to the SmartStream Builder™ directories. The .pbl files are copied to the file server when a solution, cumulative solution, or service pack is applied.

The .pbl file contains the cumulative changes for all solutions, cumulative solutions, and service packs. In the solution, cumulative solution, or service pack documentation for each product, see the SmartStream Builder PBL Corrections section for a list of updated .pbl files and affected objects within the .pbl files. To identify earlier changes, review documentation from previously applied solutions, cumulative solutions, and service packs.

If you have customized any of the changed objects, you must reapply these customizations to the updated objects.

After you apply the solution, it is necessary to notify your SmartStream Builder users that they must copy updated .pbl files to their development directory. By default, this is the directory specified by the InitCodeDirectory entry in the [Streambuilder] section of the dbs.ini. SmartStream Builder users can place these .pbl files in any directory as long as they are found in the PowerBuilder library search path.

Procedure

Use the following procedure to update PowerBuilder objects.

Step	Action
1	Review the service pack documentation to identify PowerBuilder objects that have changed.
2	Use the pbcomp32.exe to compare the updated objects with the customized objects in your cust.pbl.
3	Copy the object from the updated PBL to your cust.pbl and reapply your customizations to the updated objects.

Other Processing Options

The Solution Delivery program has processing options you can use to provide more information about the contents of the solution before its application. These options, which are run by passing command line parameters to the program, are described in the following table:

Parameter	Program Action
l(ist)	Displays and saves a list of all the files included in the solution.
e(xtract)	Extracts contents of solution to specified directory only. No file server update occurs.
fso(file server only)	Extracts contents of solution and performs file server updates.
u(bypass Job Server updates)	Bypasses the updating of Job Servers in both UNIX and Windows environments.

List

Use the following procedure to generate a list of the files that are included in the service pack, cumulative solution, or individual solution. A *solution number*.lst is generated that lists all the files included in each corrective code library member. This file is generated in the *geac***patch***solution number* directory.

Step	Action
1	Depending on the type of installation, select the **setup.exe** for the Install utility or the Solution Delivery program.
2	Choose Run from the File menu.
3	Position cursor one space beyond the file name and type the letter **l**. Example: **setup.exe l** Choose OK.
4	If you are using the Install utility, the .lst files are generated for each solution. Choose Exit. If you are using the Solution Delivery program, go to Step 5.
5	Enter the solution number when prompted. **Result:** The information window scrolls with a list of files included in each solution member.
6	Scroll through the list as needed to record the name and location of the output list file.
7	Enter another solution number to list contents or choose Exit.

Extract

Use the following procedure to extract the files included in the service pack, cumulative solution, or individual solutions to a set of directories.

Step	Action
1	Depending on the type of installation, select the **setup.exe** for the Install utility or the Solution Delivery program.
2	Choose Run from the File menu.
3	Position cursor one space beyond the file name and type the letter **e**. Example: **setup.exe e**
4	If you are using the Install utility, the extracted files for each solution are copied into subdirectories, by solution member under *geac***patch***solution number*. Choose Exit. For solutions using the Solution Delivery program, go to Step 5.
5	Enter the solution number when prompted. **Result:** A window opens showing the default directory for extracting a solution (*geac***patch***solution number*).
6	Change the extract target directory or choose OK to accept the default. **Result:** The information window scrolls with extract status messages.
7	Enter another solution number to extract or choose Exit.

Note: For a service pack or a cumulative solution, this process extracts a large number of files to your file server. If you want to extract only a subset of the solution members, copy those solution .ccl members to a new directory. Use the Solution Delivery program. It prompts you for the location of the solution. Enter the path and new directory name.

File Server Only

This option is for new customers who have completed the installation of SmartStream on the file server. You can use the File Server Only (FSO) option to apply the file server changes from the service pack, cumulative, or individual solution. No database server or UNIX server updates are performed. After completing this step, run the Database Setup program to install SmartStream on the database server.

Use the following procedure to copy the files contained in the solution to the appropriate file server location.

Step	Action
1	Depending on the type of installation, select the **setup.exe** for the Install utility or the Solution Delivery program.
2	Choose Run from the File menu.
3	Position cursor one space beyond the file name and type the letters **fso**. Example: **setup.exe fso**
4	If you are using the Install utility, the file server is updated with files from each solution that has not already been applied. Choose Exit. If you are using the Solution Delivery program, go to Step 5.
5	Enter the solution number when prompted. **Result:** The information window scrolls with status messages and the prompt for a solution number reappears.
6	Enter another solution number to run file server only updates or choose Exit.

Note: To complete applying the solution after choosing the File Server Only option, run setup.exe without any options. This copies all the files to the file server again along with database server and UNIX server updates.

To restart the application of the solution, set up a restart.ini file with these settings: Section=2 and ResSetMember=*first solution set member in the .SEQ file*. For more information, see the Restarting a Solution section.

Bypass Job Server Updates

Use the following procedure to have the Solution Delivery program skip updating both UNIX and Windows Job Servers with the batch programs included in the service pack, cumulative solution, or individual solutions.

Step	Action
1	Depending on the type of installation, select the **setup.exe** for the Install utility or the Solution Delivery program.
2	Choose Run from the File menu.
3	Position cursor one space beyond the file name and type the letter **u**. Example: **setup.exe u** **Result:** The rest of the installation process runs as described in the Continue Common Solution Processing section, except that any batch programs delivered in the solution are not copied to the Job Servers.

Applying Solutions Members Selectively

Because of the complex integration and interdependencies between products, Geac recommends that you always apply the entire solution. However, you may select only certain members of solutions to apply. If you decide to apply selectively rather than as a full set, you copy **only** the selected .ccl files from the solution delivery medium to the *geac***patch** directory of the SmartStream file server.

SMARTStream®

Installation Guide

Version 6.5

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Introduction

The SmartStream® *Installation Guide* from Geac Enterprise Solutions (Geac) describes

- The installation process
- Information about installing SmartStream products.

Audience

The audience for this guide consists of users who install the SmartStream products.

Prerequisites

You must be familiar with the supported version of following products to install SmartStream products:

- Microsoft SQL Server or Sybase Adaptive Server Enterprise
- Microsoft SQL Server Client or Sybase Open Client
- Windows Workstation
- SmartStream products
- UNIX or Windows Server
- Your mail software product

Conventions

A check box (☐) next to text identifies a task you need to complete during the installation process.

1 Overview of Installing SmartStream

Chapter Contents

1-1 The SmartStream Environment
1-4 The Installation Process
1-5 Planning Your Installation

The SmartStream Environment

This section describes the components that are required in the SmartStream environment.

Installation Workstation

The installation workstation is set up to install SmartStream and other required third-party products. It must have a CD-ROM player and a network connection to the other components that make up the SmartStream environment.

File Server

The file server is installed with all the SmartStream products and third-party products packaged on the compact discs delivered by Geac.

Database Server

The database server is installed with Sybase Adaptive Server Enterprise or Microsoft SQL Server and

- SmartStream product databases
- Initial data
- Stored procedures
- Triggers
- Views.

SmartStream Client Workstation

The SmartStream client workstations are installed with the necessary third-party products and SmartStream or Decision Support Viewer.

SmartStream Mail Gateway Workstation

The SmartStream Mail Gateway workstation, a connection for electronic mail, allows scheduled jobs to send messages to users within SmartStream.

Job Server

Job Server provides the capability of running remote unattended processes. Job Server is made up of the following programs.

This program…	Runs on a…	With this number of instances installed…
Master Scheduler	▪ UNIX server ▪ Windows operating system	One instance of the Master Scheduler program is required for your SmartStream environment.
Poll	▪ UNIX server ▪ Windows operating system	One instance of the Poll program is required for your SmartStream environment. However, you can install several instances of the Poll program if that is a requirement for your SmartStream environment.
ARPC	▪ UNIX server ▪ Windows operating system	One instance of the ARPC programs is required for your SmartStream environment.

Additional SmartStream Products

If an enterprise licenses SmartStream Connect or SmartStream Builder, the SmartStream environment contains the following additional components.

SmartStream Connect

Your enterprise can use SmartStream Connect to support a mix of host and client/server products. SmartStream Connect downloads, uploads, or downloads and uploads data from the host to the SmartStream client/server environment.

SmartStream Builder

Your enterprise can use SmartStream Builder development software to enhance SmartStream and adapt SmartStream products to your needs.

Locations

SmartStream Builder is installed on the

- File server
- Database server
- SmartStream client workstations.

Additional SmartStream Functions

Your enterprise can implement the following SmartStream functions. The use of these functions affects the way SmartStream is installed at your enterprise.

Language Kits

SmartStream client workstations are monolingual; that is, they are installed with SmartStream in one of the languages installed on the file server and database server. However, SmartStream supports installations of multiple languages on the file server and database server.

The Installation Process

The SmartStream installation process involves several steps and varies depending on the products and functionality you are installing.

Installing SmartStream the First Time

If you are installing SmartStream for the first time, the standard installation process includes the following tasks:

Task	Description	Documentation
1	Prepare the environment by installing the required third-party software	This guide, Chapter 2, Preparing the Environment
2	Copy the files from the SmartStream compact disc to your file server	This guide, Chapter 3, Preparing and Installing the File Server
3	Create your databases and load databases without data	This guide, Chapter 6, Installing SmartStream Products on the Database Server
4	Install client workstations	This guide, Chapter 9, Installing SmartStream Products on the Client Workstation
5	Install the Mail Gateway	This guide, Chapter 10, Installing the SmartStream Mail Gateway
6	Install the Job Server	This guide, Chapter 11, Installing Job Server
7	Customize your accounting key	▪ *Enterprise Accounting* guide, Planning Your User-Defined Accounting Key ▪ *Shared Components Technical Reference*, Configuring Your Accounting Key

Installing a New Release of SmartStream

A checklist for those who have installed several new releases of SmartStream with few problems is included in this guide in Chapter 15, Road Map for Experienced SmartStream Installers.

Planning Your Installation

Because the installation process involves several steps and varies depending on the products and functionality you are installing, take the time to plan your installation tasks.

A planning aid is provided to help you plan your SmartStream installation. The SmartStream Installation worksheets are provided for you to record information about your environment before you begin.

SmartStream Installation Worksheets

A worksheet is provided for each SmartStream setup program. You can use these worksheets to collect information you need to provide during the installation process.

The SmartStream Installation worksheets are in Appendix B of this guide.

2 Preparing the Environment

Chapter Contents

2-1 Accessing the Latest Installation Information
2-3 Client Configuration for Installing International Version
2-4 Preparing the Installation Workstation
2-5 Adding SmartStream Products Between Releases
2-6 Establishing Connectivity in the SmartStream Environment
2-8 Installing Sybase Open Client
2-11 Installing Microsoft SQL Server Client
2-12 Installing Microsoft Distributed Transaction Coordinator
2-13 Installing Microsoft Windows ODBC Drivers

Accessing the Latest Installation Information

SmartStream AnswerLink contains the latest SmartStream installation information. Before starting the installation process, visit the AnswerLink Bulletin Board. Under SmartStream, Release Information, *release number*, review the following topics:

- *Release number* **Critical Issues** for the latest installation information for the version of SmartStream that you are installing.
- *Release number* **Supported Technical Environments** for the latest information about requirements for running SmartStream for the following hardware and software components:
  - Database servers
  - Client workstations
  - Operating systems
  - Supported versions of Sybase Adaptive Server Enterprise
  - Supported versions of Microsoft SQL Server
  - Network operating systems
  - Mail systems
  - TCP/IP providers.

For information about accessing AnswerLink, see the *SmartStream Release Introduction* document included in your SmartStream package.

User ID and Password

If you are accessing AnswerLink for the first time, verify that you have a user ID and password. If not, contact SmartStream Customer Support.

Client Configuration for Installing International Version

If you are installing an international version of SmartStream, you must set up the following options on the server and the workstation on which you plan to install language kits before installing the SmartStream language kit.

If you do not set up these options before the installation, you have to reinstall the language kit.

Set up the following setting options through the SQL Server Client Configuration Utility from within the Microsoft SQL Server program group:

- Automatic ANSI to OEM, turn Off
- Use International Settings, turn On

These options must also be set up on each SmartStream client.

Preparing the Installation Workstation

Perform the following tasks to prepare the installation workstation for the installation process.

CD-ROM Player

- ☐ For optimal performance, attach a CD-ROM player to the installation workstation instead of using a remote connection.
- ☐ Insert the SmartStream compact disc in the CD-ROM player.
- ☐ Insert the License disk in the drive of the installation workstation.

Service Packs

If you are using the installation workstation to apply SmartStream service packs, be sure that the installation workstation maps to the same drives as those used during the original installation. The original drive mapping information is recorded in the dbsinst.ini file located in the *drive:\directory* on the file server where SmartStream is installed and is used to apply the service pack.

Date Format

The four-digit year format is the required date format. You can change the year format on the installation workstation from the **Control Panel**, **Regional Settings**, **Date** options.

Microsoft Office Warning

It has been discovered that some of the SmartStream installation programs are incompatible with certain versions of msjet35.dll. For this reason, Geac recommends that you use a workstation that has never had Microsoft Office installed on it as your installation workstation.

Adding SmartStream Products Between Releases

If you want to add SmartStream products and language kits to your environment between releases of software, install them as described in the following table:

Task	Description	Documentation
1	Run the File Server Setup program to install the additional products on the file server.	This guide, Chapter 3, Preparing and Installing the File Server
2	Run the File Server Setup program for each language kit compact disc to install the additional languages on the file server.	This guide, Chapter 3
3	If you tailored the accounting key for your production environment, run the User-Defined Accounting Key program for the products you added to the file server in CD to Server mode.	Migration Guide, Chapter 3, Tailoring Your Accounting Key
4	Run the Database Server Setup program to create and load the databases for the additional products on the database server.	This guide, Chapter 6, Installing SmartStream Products on the Database Server
5	Run the Database Server Setup program from the language directory to load the language components.	This guide, Chapter 6
6	Run the Job Server Setup program to reinstall Job Server.	This guide, Chapter 11, Installing Job Server
7	Run the SmartStream Client Workstation Setup program to install the additional products.	This guide, Chapter 9, Installing SmartStream Products on the Client Workstations

Establishing Connectivity in the SmartStream Environment

SmartStream uses both Open Client and ODBC to connect from database client workstations to the server. Database connectivity is required for workstations that are used to

- Install SmartStream onto database servers
- Run as Job Servers
- Run the SmartStream application.

Install the following software in the SmartStream environment to provide database connectivity:

- Sybase Open Client or Microsoft SQL Server Client
- Sybase ODBC Drivers or Microsoft ODBC Drivers

Note: If you plan to use the 16-bit Reporting Tools applications, you must install them on a separate client workstation from your SmartStream installation. For more information, see Chapter 7, Considerations for Installing Reporting Tools.

For this environment...	Install...	On the...
Sybase Adaptive Server Enterprise	Open Client (16 bit)	SmartStream client workstation running Reporting Tools
	Open Client (32 bit)	▪ Installation workstation ▪ Client workstation ▪ Job Server workstation
	Sybase ODBC Drivers (16 bit)	SmartStream client workstation running Reporting Tools
	Sybase ODBC Drivers (32 bit)	▪ SmartStream client workstation ▪ Job Server workstation

(continued)

For this environment...	Install...	On the...
Microsoft SQL Server	Microsoft SQL Server Client (16 bit)	SmartStream client workstation running Reporting Tools
	Microsoft SQL Server Client (32 bit)	▪ Installation workstation ▪ Client workstation ▪ Job Server workstation
	Microsoft ODBC Drivers	▪ Installation workstation ▪ SmartStream client workstation ▪ Job Server workstation

See the following sections for detailed information about installing these products in the SmartStream environment.

Installing Sybase Open Client

Sybase Open Client software must be installed in SmartStream environments using Sybase Adaptive Server Enterprise. Install the 32-bit version of this program on the

- Installation workstation
- SmartStream client workstations
- Job Server workstation.

Installation Instructions

☐ Review the Sybase documentation **carefully** before starting the Open Client installation.

Running the Setup Program

Run the setup.exe program on the Sybase Open Client/ODBC CDs if you are installing the

- SmartStream client workstation
- Job server.

For information about running the setup.exe, and where it can be found, see the Sybase document, *Open Client/Server Installation Guide for Microsoft Windows*.

SmartStream Recommendations

Consider the following recommendations when you make decisions during the installation process:

Version

For the...	Select...
Installation workstation	32-bit.
Client workstation	32-bit and 16-bit.
Job Server	32-bit.

Components

Optionally, you can install the following components:

- Sybase Central
- Language Modules
- Connectivity

- Sybase ASE ODBC
- Sybase ASE OLE DB
- Net-Library Drivers

Net-Library Drivers

The following net-library drivers are supported:

- Windows Sockets
- Named Pipes

Long File Names

The SmartStream environment does not require long file names.

Post-Installation Tasks

Perform these tasks after installing Open Client software.

For Non-English Versions of Microsoft Windows

☐ If you install the Open Client software on a workstation installed with a non-English version of Microsoft Windows, define the following Environment Variable to your system using the System utility on the Control Panel:

LANG=en

Testing Connection to the Database Server

☐ Complete the following steps to test the connection between the Windows workstation and the database server:

Step	Action
1	Run **dsedit**.
2	Select the appropriate server name from the list.
3	Select the **Server Object** menu, then **Ping Server**. **Result:** If a message appears stating that your server is alive, the workstation is connected to the database server.

Sybase ODBC Drivers

SmartStream requires that you select the Sybase System 12.0 ODBC driver to connect to SmartStream 6.5 Sybase data sources.

After you install the Sybase ODBC drivers, change the settings to access 32-bit SmartStream Formulas.

Step	Action
1	Open the ODBC Administrator.
2	Highlight the System DSN for your server, and select the Configure button.
3	Select the Advanced tab, and type SET ANSINULL OFF in the Initialization String text box.
4	Apply the settings and exit.

Troubleshooting

The following table lists some possible causes and solutions if your workstation fails to connect after you install Open Client software.

Problem	Possible Resolutions
The client workstation did not connect, or errors occurred while using FTP PC/TCP 32 software.	Run dsedit to ensure you are using the nlwnsck.dll, not the nlftptc.dll, in the configuration of your server entry.
The database server did not connect. If the database server cannot connect, the settings in the sql.ini file might be wrong.	Check the entries in the sql.ini file to ensure they are appropriate. Either run dsedit to check this, or edit this file manually. This file is in the *x:**sybase**ini****sql.ini*** directory, where *x:**sybase* is the directory where you installed Open Client software.
You cannot log on to SmartStream using a Windows workstation, but you can connect to the server.	Ensure that you have the 32-bit version of Open Client software installed on your client workstation.

Installing Microsoft SQL Server Client

Microsoft SQL Server Client software must be installed in SmartStream environments using Microsoft SQL Server. It should be installed on the

- Installation workstation
- SmartStream client workstations
- Job Server workstation.

Installation Instructions

For information about installing Microsoft SQL Server Client software, see the Microsoft SQL Server *Setup* guide.

Post-Installation Tasks

Test the connection between the client workstation and the database server.

Installing Microsoft Distributed Transaction Coordinator

Microsoft Distributed Transaction Coordinator (DTC) must be installed in SmartStream environments. It should be installed on the

- Database server
- SmartStream client workstation
- Job Server workstation.

Installation Instructions

Windows NT 4.0 Server

Although there is no separate DTC installation for the database server, you must ensure that the DTC service starts automatically when the server is started.

You must install DTC on the SmartStream client and the Job Server workstation. For information about installing the DTC software, see the readme.txt file at this address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6

You can find the DTC setup program at the following address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6/i386

Windows 2000 or XP

The DTC is automatically installed with Windows 2000 and XP Professional, but you must complete the following procedure to ensure that the DTC service starts automatically when the server is started:

Note: You must be logged on as a user with **administrative rights**.

Step	Action
1	Open Control Panel.
2	Click Administrative Tools, then click Services, and select **MSDTC** (the Distributed Transaction Coordinator applet).
3	Change the Startup Type setting to **Automatic**, click Start under Service status, and click OK.
4	Close the Distributed Transaction Coordinator applet.
5	Close the windows that were opened.

Installing Microsoft Windows ODBC Drivers

Microsoft Windows ODBC Drivers software must be installed in SmartStream environments using Microsoft SQL Server. It should be installed on the

- Installation workstation
- SmartStream client workstations
- Job Server workstation
- Workstation running Mail Gateway.

Installation Instructions

For information about installing Microsoft Windows ODBC Drivers software, see the Microsoft SQL Server *Setup* guide.

Post-Installation Tasks

You must add an ODBC data source for you database server on the workstation where ODBC in installed. Verify that you added the data source correctly using the ODBC Data Source Administrator utility.

3 Preparing and Installing the File Server

Chapter Contents

3-1 Before You Begin
3-2 About the File Server Setup Program
3-3 Considerations for SmartStream Language Kits
3-4 Prerequisite Tasks
3-5 Running the File Server Setup Program
3-8 Troubleshooting
3-12 Post-Installation Task for Language Kits
3-14 Installing Microsoft Access
3-15 Installing Microsoft Excel
3-16 Installing Cognos PowerPlay
3-17 Copying the SmartStream Library .pdf Files

Before You Begin

Before preparing and installing the file server, complete the tasks in Chapter 2, Preparing the Environment.

Worksheets

Installation worksheets are provided to help you plan your SmartStream installation. See Appendix B for the appropriate worksheets.

About the File Server Setup Program

Run the SmartStream File Server Setup program located on any SmartStream compact disc before you install the SmartStream environment. The File Server Setup program installs the

- SmartStream products your enterprise licensed in a directory on the file server
- SmartStream products required to run the products you licensed
- English language components in the same directory as the SmartStream products for all the SmartStream products selected
- SmartStream language kits, if selected
- Utilities
- SmartStream Builder, if selected
- SmartStream Builder language kits

Number of SmartStream Environments

You can install one copy of SmartStream on the file server and set up multiple database environments from it. Each environment set up from the same file server source must use the same accounting key.

Considerations for SmartStream Language Kits

Each SmartStream language kit is delivered on a separate compact disc that contains a copy of the File Server Setup program.

Directory Structure

The SmartStream File Server Setup program installs the language components located on the compact disc into a separate directory from the SmartStream file server directory. Each language kit must be installed in a separate directory.

Process

Run the File Server Setup program once to install SmartStream products, and again for each language kit.

Run File Server Setup from this compact disc…	To install this component on the file server…	In this directory…
SmartStream	SmartStream products	A directory you specify.
Language kit	Language components	A different directory from where you installed SmartStream and any other language kit.

Prerequisite Tasks

Complete the following tasks before installing SmartStream products to the file server.

- ☐ Your user ID must have administrative privileges for the installation workstation. These privileges allow you to use the File Server Setup program to register and unregister .dll and .ocx files.

- ☐ Ensure that you have enough space on the file server to copy the products that your enterprise licensed. To determine the space requirements, see Considerations for Installing Sybase Adaptive Server Enterprise in Chapter 4, Preparing the Sybase Database Server, or Considerations for Installing Microsoft SQL Server in Chapter 5, Preparing the Microsoft Database Server.

Running the File Server Setup Program

Complete the following procedure for each of the following products, if licensed, to install them on the file server:

- SmartStream products
- SmartStream Builder
- Language kits

Step	Action
1	Insert the compact disc in the CD drive and the license diskette in a disk drive.
2	Run the setup.exe program located in the following directory: ▪ For SmartStream and language kits, *CD-ROM drive*:**\dbs\instmgr\install** ▪ For SmartStream Builder, *CD-ROM drive*:**\strmbldr\instmgr\install** where *CD-ROM drive:*\ is the location where the compact disc is inserted.

Results of Running the Setup Program

The Setup program performs the following tasks:

- Copies SmartStream products to the file server and establishes the SmartStream directory structure.
- Generates a file called dbsinst.ini, which contains a record of how you responded during the setup process. The dbsinst.ini file is located in the *drive:**directory* where SmartStream is installed on the file server.

  The settings in the dbsinst.ini file allow subsequent installations to be performed.
- Generates a file called copy.log, which contains a record of all files copied or unzipped.

Products Copied to the File Server

These are the products copied to the file server from the SmartStream CD when you run the Setup program. They are listed in the dbsinst.ini file along with your setup responses.

Short Name in dbsinst.ini	Name Displayed in SmartStream
PLATFORM	SmartStream
COMMON	Shared Components
LEDGER	Ledger
ASSETS	Asset Management

Short Name in dbsinst.ini	Name Displayed in SmartStream
CONSOLID	Consolidations
ALLOCATE	Allocations
BILLING	Billing
BUDGET	Budget
PAYABLES	Payables
RECEIVBL	Receivables
UOMM	Unit of Measure
PROJECTS	Projects
PCOMMON	Procurement Common
ITEMS	Items
RECEVING	Receiving
BACKLOAD	Background Load
COST	Supplies Management Cost
INVENTRY	Supplies Management
PURCHASE	Purchasing
PERSONEL	Personnel
PAYROLL	Payroll
CONNECT	Connect
EURO	Euro
FUNDS	Funds
STRMBLDR	SmartStream Builder

Setup Options

Installation Type

The type of installation you want the File Server Setup process to perform.

If you select...	The File Server Setup process installs…
Quick	All the products your enterprise licensed.
Custom	Only those products you select from the list of products that your enterprise licensed.

Location of License File

The drive and path where you inserted the license file diskette. Include the name of the license file in this field.

The SmartStream license file is used to install SmartStream products from the SmartStream compact disc.

You receive a new license file diskette from Distribution Services for SmartStream 6.5. Previous license file diskettes are rejected.

Source Directory The drive and path where you inserted the SmartStream CD containing the SmartStream products and components that you want to install.

Operating System Choose the operating system of the server where SmartStream Job Server will be installed.

Destination Directory The drive and path where the file server image is created.

Warning: Do not use long names, or spaces in those names, for the destination directory and its subdirectories.

If you are installing language kits see the following section for more information about the destination directory.

Setup Options for Installing Language Kits

The following setup options are specific to installing language kits on your file server.

Administrative Language The Job Server Setup programs, User-Defined Accounting Key program, and language information for the SmartStream client are translated.

Select **yes**, if you want to use this language when running the File Server Setup process and all other administrative functions.

Destination Directory The drive and path where the base file server image is created for the language kit that you are installing.

For example, c:\dbs_fr for installing a French language kit.

English Install Directory The drive and path where the English installation process looks for the SmartStream products and components that you want to install.

Troubleshooting

The File Server Setup program is controlled by the cdshell.ini file in the **dbs\instmgr\install** directory on the CD.

The `[TempOCXs]` section of the cdshell.ini file specifies a number of .dll and .ocx files that the program registers before running the applications specified in the `[ExecuteApps]` section. The following example shows sample code for this section:

```
[TempOCXs]
OCX0=FSCP.OCX
OCX1=LICSRV.OCX
OCX2=DBGRID32.OCX
OCX3=COMCTL32.OCX
OCX4=COMDLG32.OCX
OCX5=DAO350.DLL
OCX6=END

[ExecuteApps]
App0=CD2FSUI.EXE
App1=END
```

If .dll and ocx files are already registered with these names, the program unregisters the existing .dll or .ocx files and registers the ones on the CD. After the File Server Setup program has completed, it unregisters the .dll and .ocx files on the CD and reregisters the .dll and .ocx files that had previously been registered.

Usually, when the File Server Setup program fails to load, it has encountered a registry problem of some sort. Using one of two methods usually resolves the problem:

- Run a registry cleaning program, such as RegClean or RegMaid (available on the Microsoft FTP site). Please read Microsoft's technical notes before running either of these two programs to see whether your environment has any compatibility issues with them.
- Register the .dll and .ocx files listed in the cdshell.ini file using the regsvr32.exe program located in the **windows\system** or **windows\system32** directory.

Several files that the File Server Setup program uses can be helpful for resolving problems:

File	Description
Copy.log	This file is created by the File Server Setup program in the root directory of your SmartStream file server image. It contains a log of all the files that were copied during the program's execution. It also contains a log entry when .zip files are extracted. File copy errors that occur during program execution are also logged here.

File	Description
Dbsinst.err	This file is also created by the File Server Setup program in the root directory of your SmartStream file server image. It contains a summary of all the file copy errors that occurred during the program's execution. (The same information is also located in the copy.log file.)
Manifest	This file contains a record of all files that were placed on the CD when it was created. The manifest file is in the manifest directory on the CD and has a psuedo-random name, like 85000000.nx1. Each line in the manifest file contains the following entries: the filespec on the Geac development server, the filespec on the CD, the filespec on an installed file server, the name of the .zip archive on the CD, if any, the original size of the file, and the date and time stamp of the file.
.pkg files	These files control the File Server Setup program file delivery process. They reside in the **dbs\instmgr\package** directory on the CD. Each file contains a number of sections, similar to an .ini file. These sections describe the source directory of the files on the Geac development server, the destination of the files on an installed file server, and the .zip archive to use, if any.
Dbsinst.ini	This file is created by the File Server Setup program in the root directory of your SmartStream file server image. The [COPY] section of this file contains a record of the components already loaded on the file server. If a component has previously been loaded, the File Server Setup program does not load it again.

The following table shows possible problems and the suggested solutions:

Problem	Possible Solutions
The dbsinst.err file contains a message indicating that there is not enough space to install software on the file server.	▪ Increase space by deleting unnecessary files, directories, or programs. ▪ Correct the problem, and start the File Server Setup program again.
The dbsinst.err file contains the message **Unable to copy file**.	Verify that you have network operating system write permission for the file server drive.
The File Server Setup program encounters a copy error.	A message is written to the dbsinst.err file that contains error information. Review the error file, correct the problem, and restart the installation process.
During the installation process, the installation workstation locks.	▪ Reboot the installation workstation, and try running the File Server Setup program again. ▪ Verify that the installation workstation is prepared correctly.
The client workstation you use to install software runs out of memory during the installation process.	Close any unneeded Microsoft Windows programs you are running, such as screen savers and mail products. Reboot and start the File Server Setup program again.

Problem	Possible Solutions
A message displays indicating an illegal action was attempted.	Check all source and destination connections to ensure they are still available.
A message displays indicating that ▪ The File Server Setup program is unable to find a file. ▪ Files being registered or unregistered are not available.	Determine if the file is registered, and ensure that the location of the registered file is valid. If it is not valid, delete the registry entry.
The message **Unable to register file** displays.	Take the following actions: ▪ Determine if the file is already registered. If it is registered, unregister it and manually register the required version using the regsvr32.exe program. SmartStream's version of the file is located in the **\dbs\instmgr\install** directory. ▪ Ensure the logon ID has administrator's privileges to the install workstation. ▪ Determine if the registration software is in the search path or in the **\system** directory.
One of the following messages is displayed: **Could not register all necessary files.** **Check files specified in cdshell.ini against the registry.** **Exiting setup program.**	Determine if any of the files in the cdshell.ini file are already registered in the installation workstation.
The message **Could not find location of filename when checking for version** is displayed.	The filename is found in the registry but the File Server Setup program is unable to find it on the installation workstation. Unregister the program or make the registry entry valid.
The message **Could not find file, OLEAUT32.DLL, for reboot. Exiting setup program** is displayed.	The file OLEAUT32.DLL is registered on the installation workstation but is not found in the Windows System directory. Put a copy of the OLEAUT32.DLL in the Windows System directory.
The message **Could not find location of filename when trying to register file** is displayed.	The File Server Setup program is verifying that a file exists prior to registering it. Check that the file named is in the specified directory. The default directory is the location of the File Server Setup program.
The message **Unable to load *location of filename*** or **Attempt to register *location of filename* failed** is displayed.	The File Server Setup program cannot register the file specified. Ensure that you have administrator privileges to the installation workstation. Manually register this file on the installation workstation.
One of the following messages is displayed: **Unable to load *location of filename* when attempting to unregister file.** **Attempt to unregister *location of filename* failed.**	The File Server Setup program cannot unregister the file specified. Manually unregister this file on the installation workstation.

Problem	Possible Solutions
The message **User *userid* is not an administrator on this local machine** is displayed.	Log on to the installation workstation with a user ID that has administrator privileges.
The message **Couldn't lock file** is displayed.	Exit the File Server Setup program. Remove the License disk and unlock it. Reinsert the License disk and start the File Server Setup program.

Post-Installation Task for Language Kits

Perform the following procedure if you installed SmartStream language kits on the file server.

If you do not want the default language code for predefined users to be EN (English), SmartStream delivers the following predefined users: DBS, USER01-USER80, INSTR01-INSTR03, INSTR31-INSTR33, INSTR61-INSTR63.

Procedure

First, rename the following files:

Directory	From	To
\dbms\wact	wactusmm.bcp	wactusmm.bak
\dbms\wijt	wijtdraw.bcp	wijtdraw.bak
\dbms\wijt	wijtfold.bcp	wijtfold.bak
\dbms\cscommon	wactusmm.sql	wactusmm.bak

Next, copy the following files from the location where the SmartStream language kit is installed to the location where SmartStream is installed:

File	From drive:\language directory\	To drive:\directory\
wactusmm.sql	\dbms\cscommon	\dbms\cscommon
wactusmm.bcp	\dbms\wact	\dbms\wact
wijtdraw.bcp	\dbms\wijt	\dbms\wijt
wijtfold.bcp	\dbms\wijt	\dbms\wijt

Where

- *drive:**directory*\ is the location where SmartStream is installed.
- *drive:**language directory*\ is the location where the SmartStream language kit is installed.

SmartStream Builder Language Kits

Perform the following steps for the SmartStream Builder language kits.

Step	Action
1	Copy the contents of the CD to *drive*:*language directory*\STRMBLDR
2	Turn read-only attributes Off.

Applying Service Packs

If a service pack was applied before the installation of a language kit, the service pack needs to be reapplied using the FSO (file server only) option.

Installing Microsoft Access

Microsoft Access 2000 or XP must be available to all SmartStream client workstations used to run delivered SmartStream reports. It is recommended that you install it on the file server so that Microsoft Access 2000 or XP can be easily installed on the client workstation.

Reporting Tools

If you plan to install Reporting Tools, you must install Microsoft Access 2.0 on workstations running reporting tools. Do not install Access 2000 or XP on workstations running reporting tools.

More Information

For more information about installing Microsoft Access, see the Microsoft Access documentation.

Installing Microsoft Excel

Microsoft Excel 2000 or XP must be available to all SmartStream client workstations with SmartStream Budget installed if the users are going to use the Pivot table functionality. It is recommended that you install it on the file server so that Microsoft Excel 2000 or XP can be easily installed on the client workstation.

More Information

For more information about installing Microsoft Excel, see the Microsoft Excel documentation.

Installing Cognos PowerPlay

For SmartStream 6.5.02 and earlier only, Cognos PowerPlay 5.21 must be available to users who are

- Installing SmartStream Analyzer
- DSS Viewer customers.

Cognos PowerPlay 6.61 must be available to users who are

- Installing Open Analyzer
- Using PowerPlay natively.

Warning: If you need to install both versions of Cognos PowerPlay, install version 5.21 **first**, then install version 6.61.

It is recommended that you create a PowerPlay Enterprise Setup Server on the file server so that PowerPlay can be installed easily on the client workstation.

Installation Instructions

For information about installing a PowerPlay Enterprise Setup Server, see the Cognos PowerPlay *Installation Guide*.

SmartStream Considerations

As you make selections during the installation process, consider the following guidelines.

- Select Enterprise Administration.
- If you are planning to select the Network option when you install SmartStream on the client workstation, choose Yes on the Create an Application Server dialog box.
- If you select Yes for the Create an Application Server dialog box, select the following components:
  - PowerPlay
  - Transformer
  - Help (recommended)
  - Books (recommended).

Copying the SmartStream Library .pdf Files

You can access the SmartStream Library .pdf files from the SmartStream Library compact disc, or you can copy them to your file server or the client workstations.

For more information, see Chapter 13, Copying SmartStream Library PDF Files.

4 Preparing the Sybase Database Server

Chapter Contents

4-1 Before You Begin
4-2 About Preparing the Database Server
4-3 Considerations for Installing Sybase Adaptive Server Enterprise
4-8 Using the dbsprep Program

Before You Begin

Before preparing the database server, you must complete the tasks in these chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server

Worksheets

Installation worksheets are provided to help you plan your installation of SmartStream. See Appendix B for the appropriate worksheets.

About Preparing the Database Server

Before installing SmartStream on a database server you must prepare the database server by performing the following tasks:

- Install Sybase Adaptive Server Enterprise
- Run the dbsprep program

Considerations for Installing Sybase Adaptive Server Enterprise

Consider the following recommendations when you make decisions during and after the installation of Sybase Adaptive Server Enterprise:

For more information about installing Sybase Adaptive Server Enterprise, see the appropriate Sybase documentation.

Specifying Defaults for Installation

☐ Specify the following character set as the default:

If your operating system is...	Then use the default...
HP-UX (English only)	HP Proprietary (roman 8) - UNIX.
HP-UX (Multilingual)	iso_1.
NT (English only)	CP 850.
NT (Multilingual)	iso_1.
Any other	iso_1.

☐ Specify the following character set conversion as the default:

If your operating system is...	Then use the default...
All (English only)	0.
All (Multilingual)	1.

SmartStream products test for this specification.

☐ Select Binary as the default sort order. Your database server entries become case sensitive.

SmartStream requires that the Sybase server be installed with Two-Phase Commit to prevent errors with stored procedures.

☐ Install Sybase with Two-Phase Commit.

Sizing the Master Database

- ☐ Change the size of the master database to 20 megabytes (MB). (The default after installation is 2 MB.)

Example

If you are using an administrator's utility, type the following command to increase the master database size from 2 MB to 20 MB by adding 18 MB.

```
alter database master on master = 18
go
```

Sizing the tempdb Database

- ☐ Initially set the size of the tempdb database at 100 MB. This database is a work area available to all database server transactions for temporary storage. The size of tempdb depends on many factors such as the size of scheduled jobs (batch). After testing, you might need to increase the size.

  When you extend the size of tempdb database, extend it to a device other than the master device.

See the appropriate *Sybase System Administration Guide* for information about creating and using devices.

Database Server Configurations for Installation

- ☐ Manually adjust the following parameters using the sp_configure command:

For	Parameter	Minimum Setting
Asset Management	Number of Locks	50000
Asset Management	Procedure Cache Percent	35-50% (7 to 8 MB)
Asset Management	Total Memory	16384
All Sybase environments	Identity Burning Set Factor	Lowest possible setting, ideally 1. This parameter can be adjusted after you have completed the installation.

- ☐ Restart the database server after running the command so that the parameters are changed.

Allocating Disk Devices

- ☐ Use the disk init command to allocate disk devices to store the databases for each product. This task reserves disk space on the database server for the databases.

  To simplify the installation process for non-production systems, you can create one device for databases and one device for database logs. Depending on the needs of your enterprise, you can allocate more space for any of these databases, up to the amount available on the devices after installation is complete. For better performance, production systems should use as many devices as possible that are distributed across physical devices.

The following table shows the minimum space required for each SmartStream component that creates and sizes a database:

SmartStream Product	SmartStream Component	Data (MB)	Log (MB)
SmartStream	Catalog	17	10
	Workflow and Security	75	25
	Structures	45	20
	Structures Export	50	10
	Job Scheduler	18	10
	SmartStream Connect	10	10
	ARPC	5	10
	Product Support – Common	32	12
	Common Formula	5	10
	Sample Registration	8	10
	Demonstration	5	6
Shared Components	Archive/Purge	10	5
	Archive Purge Candidates	10	10
	Bank	40	27
	EURO Basic	40	6
	Rate Entity	20	15
	Enterprise Policy	35	15
	Periodic Calendar	10	5

(continued)

SmartStream Product	SmartStream Component	Data (MB)	Log (MB)
	Vendor Payables	10	5
	Vendor Master	25	15
	Vendor Purchasing	10	5
	D & B Information Service	10	5
Ledger	General Ledger	110	30
	Ledger Journals	8	10
Asset Management	Assets	215	90
	Asset Work	75	25
Consolidations	Consolidations	50	25
Allocations	Allocations	30	10
Billing	Billing	75	20
Budget	Budget	30	15
Accounts Payable	Payment Request	85	30
	Payments	28	10
Accounts Receivable	Accounts Receivables	115	20
	Credit Management	25	10
Unit of Measure	Unit of Measure	5	10
Projects	Project Common	25	10
	Projects	80	10
	Project Allocations	20	10
	Project Work	20	10
Procurement Common	Mfg Common Control	5	10
	Day Calendar	5	10
	History Options	5	10
	Plant Tables	5	10
	Reason Master	5	10
	Udak Definition	8	10
Items	Part Master	11	10
	Part Plant	10	10
Receiving	Routing Operation	10	10
Background Load	Mfg Bulk Load	8	10

(continued)

SmartStream Product	SmartStream Component	Data (MB)	Log (MB)
Cost Management	Cost Management	50	15
Supplies Management	Inventory	30	6
	Transaction History	10	6
	Stockroom	5	6
Purchasing	Purchase Order	60	10
	Purchasing – Common	10	10
	Requisitions	50	15
	Purchase Order Annals	10	10
Personnel	Personnel and Benefits	300	50
	Access	20	10
	SmartStream Map	10	10
Payroll	Payroll	75	25
	Payroll Archive	10	10
Funds Control	Funds Control	85	20
Total for All Products		2283	894

Product Family

A product family is a group of SmartStream products and components required to run the SmartStream products.

When calculating space requirements, be sure to include the entire product family you are installing.

Example

If you license Asset Management, you must also plan space for SmartStream, Shared Components, and Ledger databases and logs.

Using the dbsprep Program

The dbsprep program adjusts the following parameters if they are less than the minimum setting listed. These minimum settings are required to install SmartStream and SmartStream products only. If you want to adjust these parameters for your production environment, see the appropriate Sybase Adaptive Server Enterprise documentation.

Parameter	UNIX Minimum Setting	Windows Server Minimum Setting
Number of user connections	250	25
Number of open databases	120	120
Number of open objects	10000	5000
Stack size	512 For HP 10.0, the size is 53248.	51200
Procedure cache percent	35	35

Depending on the amount of server memory allocated, the amount of procedure cache might need to be higher than the default required by Sybase Adaptive Server Enterprise.

Running the dbsprep Program

Step	Action
1	Run the setup.exe program located in the following directory: *drive:**directory***utility\dbsprep** where *drive:**directory* is the location where SmartStream is installed on the file server.
2	Enter your logon information for the server.
3	Run dbsprep for the database server in each of your SmartStream environments (for example, testing, training, production).

Troubleshooting

The Database Preparation program uses a .dll version of WJAMIT called wjam.dll to perform database work. This file resides in the SmartStream file server image in the **\bin32\syb** directory. A subdirectory under the **\utility\dbsprep** directory is created for output files.

During the first phase of its execution, the Database Preparation program sets several configuration parameters in the database. It does this by using WJAMIT to process one of the following sections in the dbsprep.prf file:

- Sybase NT: [CONFIGURE_FOR_SYBASE_NT]
- Sybase UNIX: [CONFIGURE_FOR_SYBASE_UNIX]

One of these configuration parameters is the setting that allows database aliases. For this configuration parameter to take effect, you must restart the database server. During the second phase of execution, the database aliases SmartStream requires are set up. During this phase, WJAMIT processes the [ADD_ALIASES] section in the dbsprep.prf file

Two-Phase Commit

Although two-phase commit is an optional part of the Sybase installation, for SmartStream to run properly, you **must** install two-phase commit on the Sybase database server.

Installing Two-Phase Commit

Use the installcommit script provided by Sybase to install two-phase commit. After running this script, run the following SQL code to correct a defect in the Sybase installcommit script by adding the guest user to sybsystemdb:

```
use sybsystemdb
if not exists (select * from sysusers where name = "guest")
begin
execute sp_adduser guest,guest
end
go
```

Reinstalling After Applying a Sybase ESD or EBF

After applying a Sybase ESD or EBF, you must reinstall two-phase commit and run the corrective SQL code.

5 Preparing the Microsoft Database Server

Chapter Contents

5-1 Before You Begin
5-2 About Preparing the Database Server
5-3 Considerations for Installing Microsoft SQL Server

Before You Begin

Before preparing the database server, complete the tasks in these chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server

Worksheets

Installation worksheets are provided to help you plan your installation of SmartStream. See Appendix B for the appropriate worksheets.

About Preparing the Database Server

Before installing SmartStream on a database server you must prepare the server by installing Microsoft SQL Server.

Special Considerations

Multiple Instances

If you are installing SmartStream on a database server with multiple instances, SmartStream must be installed **only on the default instance**.

Database Server Name

The name you assign to the database server cannot contain dashes (-).

Considerations for Installing Microsoft SQL Server

As of SmartStream 6.5.03, SmartStream supports both Microsoft SQL Server 7.0 and 2000.

Consider the following recommendations as you make decisions during and after the installation of Microsoft SQL Server.

For information about installing Microsoft SQL Server, see the appropriate Microsoft SQL Server documentation and Help.

General Considerations

This information applies to both Microsoft SQL Server 7.0 and 2000.

Specifying Defaults During Installation

- ☐ For SQL Server 7.0, select iso_1 as the character set. SmartStream products test for this specification.

  For SQL Server 2000, latin_1 is converted automatically when you use the Microsoft upgrade wizard to upgrade SQL Server 7.0 to SQL Server 2000.

- ☐ Select Binary as the default sort order. Your database server entries become case sensitive.

Sizing the tempdb Database and Allocating Disk Devices

Unlike previous versions of Microsoft SQL Server (6.5 or earlier), Microsoft SQL Server now dynamically allocates database sizes.

The following table shows the minimum space required for each SmartStream component that creates and sizes a database. Use this table to determine the **minimum** space required on disk for a Microsoft SQL Server installation.

SmartStream Product	SmartStream Component	Data (MB)	Log (MB)
SmartStream	Catalog	17	10
	Workflow and Security	75	25
	Structures	45	20
	Structures Export	50	10
	Job Scheduler	18	10
	SmartStream Connect	10	10
	ARPC	5	10
	Product Support – Common	32	12
	Common Formula	5	10

SmartStream Product	SmartStream Component	Data (MB)	Log (MB)
	Sample Registration	8	10
	Demonstration	5	6
Shared Components	Archive/Purge	10	5
	Archive Purge Candidates	10	10
	Bank	40	27
	EURO Basic	40	6
	Rate Entity	20	15
	Enterprise Policy	35	15
	Periodic Calendar	10	5
	Vendor Payables	10	5
	Vendor Master	25	15
	Vendor Purchasing	10	5
	D & B Information Service	10	5
Ledger	General Ledger	110	30
	Ledger Journals	8	10
Asset Management	Assets	215	90
	Asset Work	75	25
Consolidations	Consolidations	50	25
Allocations	Allocations	30	10
Billing	Billing	75	20
Budget	Budget	30	15
Accounts Payable	Payment Request	85	30
	Payments	28	10
Accounts Receivable	Accounts Receivables	115	20
	Credit Management	25	10
Unit of Measure	Unit of Measure	5	10
Projects	Project Common	25	10
	Projects	80	10
	Project Allocations	20	10
	Project Work	20	10
Procurement Common	Mfg Common Control	5	10
	Day Calendar	5	10
	History Options	5	10

SmartStream Product	SmartStream Component	Data (MB)	Log (MB)
	Plant Tables	5	10
	Reason Master	5	10
	Udak Definition	8	10
Items	Part Master	11	10
	Part Plant	10	10
Receiving	Routing Operation	10	10
Background Load	Mfg Bulk Load	8	10
Cost Management	Cost Management	50	15
Supplies Management	Inventory	30	6
	Transaction History	10	6
	Stockroom	5	6
Purchasing	Purchase Order	60	10
	Purchasing – Common	10	10
	Requisitions	50	15
	Purchase Order Annals	10	10
Personnel	Personnel and Benefits	300	50
	Access	20	10
	SmartStream Map	10	10
Payroll	Payroll	75	25
	Payroll Archive	10	10
Funds Control	Funds Control	85	20
Total for All Products		2283	894

Product Family

A product family is a group of SmartStream products and components required to run the SmartStream products.

When you calculate space requirements, ensure that you include the entire product family that you are installing on the database server.

For example, if you license Asset Management, you must also plan space for SmartStream, Shared Components, and Ledger databases and logs.

Special Considerations for Microsoft SQL Server 2000

The requirements for running Microsoft SQL Server 2000 with SmartStream are as follows:

- SmartStream must be installed only on the default instance of SQL Server.

  You cannot install a default instance of SQL Server 2000 on a database server that is also running SQL Server 7.0. You must either upgrade the SQL Server 7.0 installation to a default instance of SQL Server 2000, or keep the default instance of SQL Server 7.0 and install a named instance of SQL Server 2000. However, remember that SmartStream must be installed only on the default instance of SQL Server.

- The Microsoft SQL Server 2000 option **Cross DB Ownership Chaining** must be enabled for all SmartStream databases. You can enable this option for the entire database server or for the individual databases. This option must be enabled for the individual databases at a minimum.

6 Installing SmartStream Products on the Database Server

Chapter Contents

6-1 Before You Begin
6-2 About the Database Server Setup Program
6-3 Setting Up Environments
6-4 Running the Setup Program
6-7 Loading SmartStream Language Kits
6-8 Troubleshooting
6-10 Installing SmartStream Builder on the Database Server
6-11 Adding SmartStream Products to the Database Server

Before You Begin

Before installing SmartStream products on the database server, you must complete the tasks in these chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server
- Chapter 4, Preparing the Sybase Database Server, or Chapter 5, Preparing the Microsoft Database Server

Worksheets

Installation worksheets are provided to help you plan your SmartStream installation. See Appendix B for the appropriate worksheets.

About the Database Server Setup Program

The Database Server Setup program performs the following installations:

- Creates the SmartStream databases on a database server
- Creates or adds to an environment.
- Loads the databases with required initial data and optional education data
- Loads language components in the SmartStream databases

Setting Up Environments

For the database server setup process, an environment is a server that represents

- A logical business function for the customer, such as testing, training, or production
- A single installation of SmartStream.

Examples

New Environment

You set up a test environment on a database server. Now you are installing the database server for the production environment. This is a new environment.

Number of Environments

You can set up multiple environments using one SmartStream file server source.

Accounting Key

All of the environments created from the same file server source must use the same accounting key.

SmartStream and Other Database Products

Geac generally recommends that you do not install other applications on the database server with SmartStream.

Because SmartStream requires a sort order of Binary, you cannot install an application that requires a sort order of Dictionary/Case-Insensitive (which is the default for Microsoft SQL Server) on the database server with SmartStream. Also, SmartStream installation places some objects in the master database that can cause conflicts with other applications installed on the same database server.

You can, however, install additional databases on the same server to be used for reporting purposes.

Running the Setup Program

Run the SmartStream Database Server Setup program on the installation workstation from the createld directory on the SmartStream file server.

Creating Databases

Step	Action
1	Run setup.exe from the createld directory at the root of the file server image. **Result:** The Welcome to the SmartStream database create/load program window appears.
2	Click Next. **Result:** The SmartStream Environment window appears.
3	Select the environment to install products in and click Next: ▪ New environment, enter the description of the environment. ▪ Existing environment, select the environment where you want to install additional products or servers. **Note:** Database names are case sensitive, and they must not contain dashes (-). **Result:** The Database Server window appears.
4	Enter information about the server where you want the databases created and click Next. **Result:** The Product Selection window appears.
5	Use the buttons to choose the products that you want to install and click Next. **Result:** The Database Location window appears.
6	Define the data location settings for the databases. ▪ **For Sybase**, enter the data device name for the Sybase database server. ▪ **For Microsoft SQL Server**, enter the path on the server running Microsoft SQL Server to the directory where you want databases and log files created. Click Next. **Result:** The Database Details window appears.
7	Change the default database and log sizes and click Next, or click Next to accept the defaults. **Result:** The Database Load Option window appears.
8	Select **Yes** if you want to create the databases and load data into them during this process. Click Next. Go to the **next step**. Select **No** if you want to load data into the databases later, during a separate run of the process. Click Next. Go to **Step 10**.

Step	Action
9	On the Education Data window, determine whether you want to load both required and sample data or required data only and click Next. **Note:** You can load sample data only if you did **not** tailor your accounting key.
10	On the Database Create Summary window, review the selections you made. To make changes, click Back. To finish the setup process, click Next then Finish. **Result:** The setup program begins creating databases, and loading data if requested. If errors occur during processing, the Database Error Review window appears.
11	Take one of the following actions: ▪ Correct the errors using the list of files and the Edit button. Then click Retry. ▪ Click Cancel to end the process without making the requested changes.

Loading Databases

If you choose to load data into the databases you created during a separate run of the process, complete the following steps:

Step	Action
1	Run setup.exe from the createld directory at the root of the file server image. **Result:** The Database Create/Load Step window appears.
2	Select Load databases with data and click Next. **Result**: The Database Server window appears.
3	Enter login information for the server where the databases were created and click Next. **Result:** The Product Selection window appears.
4	Use the buttons to choose the products whose data you want to load and click Next. **Result:** The Education Data window appears.
5	Determine whether you want to load both required and sample data or required data only and click Next. **Note:** You can load sample data only if you did **not** tailor your accounting key. If you chose to load sample data on the Education Data window, before you can tailor your accounting key and load production data, you must run the table initialization program to remove the sample data and sample tables. **Result**: The Database Load Summary window appears.

Step	Action
6	Review the selections you made. If you need to make changes, click Back. If you want to continue, click Next then Finish. **Result:** The setup program begins loading data. If errors occur during processing, the Database Error Review window appears.
7	Take one of the following actions: ▪ Correct the errors using the list of files and the Edit button. Then click Retry. ▪ Click Cancel to end the process.

Results of Running the Setup Program

The Setup program performs the following tasks:

- Updates the createld.ini file, which contains a record of your responses during the setup process. The createld.ini file is located in the \instenv\envx\createld directory on the file server.
- For each new environment, creates a new subdirectory one level below the **\instenv** directory. It is named **\env***x*, where *x* is the sequential number assigned by the Database Server Setup program.
- During Database Create processing, generates the SQL code that, when executed, creates the SmartStream databases. These files are stored in the **\dbms** directory on the file server.
- During Database Load processing, loads the databases with SmartStream products, tables, views, stored procedures, triggers, and data.
- Generates the following files:

File type	Extension	Purpose
Output	.out	Describes each process the Setup program performed.
Restart	.rst	Indicates the process that is running when the Setup program is interrupted and where the program begins when you restart it.
Error	.err	Describes problems that caused the Setup program to fail or install unsuccessfully.

Loading SmartStream Language Kits

If you have licensed language kits, complete the following steps for each one:

Step	Action
1	Run setup.exe from the createld directory at the root of the language kit file server image. **Result:** The Welcome to the SmartStream database create/load program window appears.
2	Click Next. **Result:** The Database Server window appears.
3	Enter information about the server where you want to load the language kit data and click Next. **Result:** The Product Selection window appears.
4	Use the buttons to choose the products that you want to install and click Next. **Result:** The Database Load Summary window appears.
5	Review the selections you made. If you need to make changes, click Back. If you want to continue, click Next then Finish. **Result:** The setup program begins loading data. If errors occur during processing, the Database Error Review window appears.
6	Take one of the following actions: ▪ Correct the errors using the list of files and the Edit button. Then click Retry. ▪ Click Cancel to end the process.

Troubleshooting

The list of products displayed by the Setup program is determined by the settings in the [COPY] section of the dbsinst.ini file.

The Setup program uses a set of configuration files to drive its processing. These configuration files reside in the **\products** directory on the SmartStream file server. The product.ini file contains a list of all the products, along with the name displayed for users and the various database families associated with each. Here is a portion of the product.ini file:

```
[LEDGER]
BranchesPossible=No
UdakableFamilies=Yes
TableInitPossible=Yes
DisplayName=Ledger
DbsinstiniKey=LEDGER
Family1=glep
Family2=jepc
```

For each of the database families listed, a separate .ini file resides in the **\products** directory. These files contain the default database size information, along with the entry points to the family's database.prf file. The family's database.prf file is located in the **\DBMS***family* directory on the SmartStream file server. It defines the SQL statements that are run to install, configure, and migrate that database family.

The Setup program uses a .dll version of the WJAMIT utility called wjam.dll to perform database work. This .dll requires the 32-bit version of Sybase Open Client or the Microsoft SQL Server Client. If you get a message that wjam.dll cannot be loaded, that usually means that the 32-bit drivers wjam.dll depends on have not been loaded.

The following table shows possible problems and the suggested solutions:

Problem	Possible Solutions
The Setup program displays a message indicating that it stopped and cannot complete the process. The Setup program stops for such reasons as power failure, network failure, and lack of space on the database server.	Diagnose and correct the problem. Note the product that the Setup program was creating databases for when it stopped. Start the Setup program, and select Restart as the type of installation. Be sure to select the product you were creating databases for when you exited.
The Setup program displays a message indicating that you selected a database to load that does not exist.	Take one of the following actions: ▪ Press **Alt-Tab** to go to another window and create the database that is missing using another tool. Start the Setup program, and choose Restart. ▪ Choose Exit. Create the database using the Setup program, and continue with the database load portion of the Setup program.

Problem	Possible Solutions
Error information is displayed after the Setup program loads a database. For Database Create processing, error files are written to the instenv\env*x*\createld\create directory on the file server. For Database Load processing, error files are written to the instenv\env*x*\createld\load directory on the file server.	Correct the error, and restart this process.
The Setup program displays a message indicating that the database log ran out of space.	Use the following procedure to expand the transaction log: 1. Press **Alt-Tab** to go to another window. 2. Expand the transaction log using another tool. 3. Press **Alt-Tab** to return to Setup. 4. Choose Restart.

Installing SmartStream Builder on the Database Server

Complete the following tasks and information before installing SmartStream Builder to the database server only:

Prerequisite Tasks

- ☐ Install SmartStream Builder on the file server.
- ☐ Get a system administrator password.
- ☐ If the other products supported by this file server have had their accounting key tailored, you must also tailor the accounting key for the new product.

Setup Options

Select the following setup options for the database server:

Option	Select or Choose
Environment to Install	The environment where you want to install SmartStream Builder.
Database Server Name	The database server where you are installing SmartStream Builder.
System Administrator Role ID	The system administrator role ID.
Password	The password for the system administrator role ID.

Running the Setup Program

The database load for SmartStream Builder is performed using the regular SmartStream Create and Load program. After you install SmartStream Builder on your SmartStream file server, SmartStream Builder is displayed as one of the products on the Create and Load program's Product Selection window.

Run setup.exe from the createld directory at the root of the file server image.

Results of Running the Setup Program

The setup program for SmartStream Builder changes some SmartStream databases on the database server by loading

- SmartStream Builder stored procedures
- SQL code
- Triggers.

Adding SmartStream Products to the Database Server

If you want to add SmartStream products to your existing environment between releases, use the following guidelines.

Prerequisite Task

☐ Install SmartStream products to add to your environment on the file server.

UDAK Requirements Before Running the Setup Program

You need to complete the following steps only if you are loading new products into an environment where the accounting key has been tailored.

Step	Action	
1	Run udak.exe from the **dbms\udak** directory. **Result**: The User-Defined Accounting Key Log On window appears.	
2	Select **Not Available - Only CD to file server completed** as the database server status.	
3	Select the Processing Level option.	
	Select…	**If the new product is…**
	All products	Some product other than Consolidations.
	Consolidations	Consolidations.
4	Select **Full - Process all UDAK objects for a given product** as the run mode.	
5	Choose OK. **Result**: A message appears to inform you that the process will run in Full mode for all languages and products previously configured.	
6	Choose OK. **Result**: The Product Selection window appears.	
7	Select the new product you want to install and choose OK. **Result**: The User-Defined Accounting Key Logon Recap window appears.	
8	Choose **Continue Recap**. **Result:** The User-Defined Accounting Key Language/Product Recap window appears.	
9	Choose **Configure System**. **Result**: The Configuration Status window appears.	
10	Choose OK when the prompt informs you that the configuration is complete.	

Setup Options

Use the following guidelines as you make your selections when you run the Database Server Setup program:

Environment

Select your existing environment in the SmartStream Environment field on the SmartStream Environment window.

Education Data

If you...	Then you...
Did not tailor your accounting key	Can load the education data.
Tailored your accounting key	Cannot load the education data for the products that you are adding to the database server.

UDAK Requirements After Running the Setup Program

You need to complete the following steps only if you are loading new products into an environment where the accounting key has been tailored.

Step	Action	
1	Run udak.exe from the **dbms\udak** directory. **Result**: The User-Defined Accounting Key Log On window appears.	
2	Select **Available - Full install completed** as the database server status.	
3	Enter **sa** as the logon ID.	
4	Enter the sa password as the password.	
5	Select the Processing Level option.	
	Select…	**If the new product is…**
	All products	A product other than Consolidations.
	Consolidations	Consolidations.
4	Select **Special - Process the following class(es) of objects** as the run mode. Then select **Architecture Tables**.	
5	Choose OK. **Result**: The User-Defined Accounting Key Log On Recap window appears.	
6	Choose **Configure System**. **Result**: The Configuration Status window appears.	
10	Choose OK when the prompt informs you that the configuration is complete.	

7 Considerations for Installing Reporting Tools

Chapter Contents

7-1 Introduction
7-2 Installing Microsoft SQL Server Client and ODBC Drivers
7-10 Installing Sybase Open Client
7-14 Installing Microsoft Access 2.0
7-15 Post-Installation Task for Reporting Tools

Introduction

This chapter applies only to SmartStream 6.5.02 and earlier.

If Reporting Tools applications are used, you must install them on a separate client workstation from your SmartStream installation.

Use the Reporting Tools client to access servers using either Microsoft SQL Server or Sybase, but not both. Decide which server product you want to use and install one of them, along with the ODBC drivers that come with that server product. Then configure the servers that you plan to access from this client.

Register the dao2516.dll only on stand-alone clients for the Reporting Tools applications.

Installing Microsoft SQL Server Client and ODBC Drivers

The Reporting Tools 6.5 applications require

- 16-bit Microsoft SQL Server 6.5 Client
- 16-bit ODBC drivers
- 32-bit Microsoft SQL Server 7.0 Client.

This version of the MS SQL client installation program…	Creates a program group named…
16 bit	SQL Server Tools
32 bit	Microsoft SQL Server 7.0

Installing Microsoft SQL Server Client (16 bit)

Use the following procedure to install Microsoft SQL Server Client (16 bit).

1. Run the 16-bit Microsoft SQL Server 6.5 Client (SQL Server Tools) installation program from the CD. The path on the CD is **clients\win16\setup.exe**.

- Clear the SQL Server Books Online option on the Microsoft SQL Server Client Tools dialog box, if you need to conserve disk space.
- Choose **TCPIP** as the Default Network.

2. Delete the **w3dblib.dll** file from your **\windows\system** directory.

The Microsoft SQL Server client installation program places a copy of w3dblib.dll for Microsoft SQL Server 6.5 in your **\mssql\bin** directory and in your **\windows\system** directory. Delete the copy that is in the **\windows\system** directory.

If you do not see the file in the **\windows\system** directory, use **File Manager**, **Search**, or **Explorer, Find** to find the file. If your file browser is set so that it does not display file extensions, such as .dll, you might want to change that setting temporarily.

Update the Path to Include the 16-bit SQL Server Client Directory

Windows 98

Use the following procedure to view and edit the path in Windows 98:

Step	Action
1	Edit the autoexec.bat file and review the changes made by the Microsoft SQL Server client installation program. The path should include **c:\mssql\bin** (or the directory you installed to). Delete any Sybase directories in the path.
2	Move the **mssql\bin** entry to the beginning of the path to ensure that no other open client files are referenced before the Microsoft SQL Server files. Example: **setpath=c:\mssql\bin;c:\;c:\dos;c:\nw;c:\windows**
3	Shut down and restart the client workstation.

Windows NT

Use the following procedure to view and edit the path in Windows NT:

Step	Action
1	Right-click the My Computer icon on the client workstation desktop, or open Windows Explorer, and click Properties.
2	Click the Environment tab, and highlight the Path entry in the System Variables list.
3	Edit the path at the bottom of the window by adding **c:\mssql\bin**: Example: **Variable: Path** **Value: %SystemRoot%\system32;%SystemRoot%;c:\mssql\bin**
4	Click Set, Apply, and then OK.

Configuring Microsoft SQL Server Client (16 bit)

Use the following procedure to configure the Microsoft SQL Server client and define servers in Microsoft SQL Server.

Step	Action
1	Open the SQL Client Configuration utility in the SQL Server Tools program group.

Step	Action
2	Set the default network to TCP/IP Sockets, and click Change. **Recommendation**: Ensure that the Default Network setting is TCP/IP Sockets each time you use the SQL Client Configuration utility.
3	Click Advanced to define the servers you want to access with the Microsoft SQL Server client.
4	In the Advanced client options, type in values of the following fields: Server (use all capital letters), DLL Name, and Connection String. Example: **Server: BOSDEVSQL05** **DLL Name: dbmssoc3** **Connection String: BOSDEVSQL05,6000**
5	Click Add/Change to save the server definition. **Result:** This entry appears in the Current Entries box at the bottom of the window. The server definition is added to the [SQLSERVER] section of your win.ini file.
6	Add entries on the Advanced Client Options window for each additional server.
7	Click OK then Done to exit the SQL Client Configuration utility.

Note: **Do not** remove the DSQUERY entry in win.ini file.

Each time you go into the Advanced Client Options section, the following line is added in your win.ini file in the [SQLSERVER] section.

```
DSQUERY=DBMSSOC3
```

Leave this entry in the win.ini file. It defines the protocol as TCP/IP. If you remove it, the protocol for the Microsoft SQL Server client changes back to Named Pipes.

The [SQLSERVER] section of your win.ini should appear similar to the following example:

```
BOSDEVSQL05=dbmssoc3, BOSDEVSQL05, 6000

BOSDEVSQL03=dbmssoc3, BOSDEVSQL03, 6000

BOSDEVSQL04=dbmssoc3, BOSDEVSQL04, 6000

AutoAnsiToOem=off

DSQUERY=dbmssoc3
```

Installing Microsoft ODBC Drivers

Use the following procedure to install Microsoft ODBC drivers.

Step	Action
1	Run the 16-bit ODBC installation program, odbcadm.exe.
2	In the Install drivers dialog box, select SQL Server, and click OK. **Result**: The ODBC Administrator application prompts you to define the first server.
3	On the Data Source dialog box, click Add. **Result**: The Add Data Source dialog box appears.
4	Select SQL Server, and click OK.
5	On the ODBC SQL Server Setup dialog box, select the server.
6	Click OK. **Result:** The server you selected appears in the Data Sources list.
7	Repeat this procedure for all servers you need to access from this client workstation.
8	Click Close to exit the ODBC Administrator application.

Checking Connectivity

Use following procedure to verify connectivity:

Step	Action
1	Open the ISQL application from the SQL Server Tools program group.
2	On the Connect Server dialog box, select the server you want to check from the Server menu. If the server that you want to check is not listed, click List Servers, and select the server from the list.
3	Enter your user ID and password, and click Connect.

Step	Action
4	Type **select @@ servername** in the Query window, and execute the query. **Result:** The server name is displayed in the Results window.
5	Repeat this procedure to check connectivity for additional servers.

Troubleshooting Connectivity for the 16-Bit Microsoft SQL Server Client

- Ensure that the server is available by trying to connect using another client workstation that can connect to that server
- Verify that the Microsoft SQL Server client files can establish connectivity by using the following procedures:

Launch the SQL Client Configuration utility and ensure the protocol is TCP/IP. If the protocol is Named Pipes, select TCP/IP, and click Change.

In the SQL Client Configuration utility, click Locate to display the SQL Server client files that the client is trying to access.

Example:

SQL	msdblib3.dll	6.50.227	c:\mssql\bin
SQL	w3dblib.dll	6.50.227	c:\mssql\bin
NET	dbmssoc3.dll	6.5.0.0	c:\mssql\bin

Delete any files located in the **c:\windows\system** directory that are located in the **c:\mssql\bin** directory.

Verify that the correct files and file versions are listed. If an incorrect file or file version is listed, copy the correct version into the directory from the installation directory.

If you cannot connect after performing the previous procedures, delete the installation from the client workstation and reinstall the SQL Server client.

Installing the Microsoft SQL Server Client (32 bit)

Use the following procedure to install the Microsoft SQL Server client:

Step	Action
1	Run the installation program for the Microsoft SQL Server client from the CD or from a network. **Note:** If you are running the installation program from a network, be sure that you have mapped a drive to the network path. **Result:** The Microsoft SQL Server installation menu is displayed.
2	Click Install SQL Server 7.0 Components.
3	Click Database Server - Standard Edition. **Result:** The Select Install Method dialog box is displayed.
4	Click Local Install - install to the Local Machine and click Next. **Result:** The program searches for installed component and returns this error: The Standard Edition server component cannot be installed on Windows NT Workstation using this CD. Only client components will be available for installation.
5	Click OK. **Result:** The Welcome dialog box is displayed and followed by license information.
6	Click Yes. **Result:** The Setup Type dialog box is displayed so that you can review the setup information.
7	Click Next. **Result:** The Select Components dialog box is displayed.
8	Ensure that the Client Connectivity option is selected and click Next. (The rest of the settings are optional.) **Result:** The Start Copying Files dialog box is displayed.
9	Click Next to finish the installation

After the installation process is completed, when the program prompts you, shut down and restart the workstation. Then install Microsoft SQL Server 7.0 Service Pack 2 using the following procedure:

Step	Action
1	Run the Microsoft SQL Server 7.0 Service Pack 2 installation program, sql7spi.exe. **Result:** The program copies the appropriate files to the SP2 (default) folder.

Step	Action
2	Run setup.bat from the SP2 folder. **Result:** The service pack is installed.
3	Shut down and restart the workstation.

Update the Path to include the 32-bit SQL Directory

Windows 98

Use the following procedure to view and edit the path in Windows 98:

Step	Action
1	Edit the autoexec.bat file and review the changes made by the Microsoft SQL Server Client installation program. The path should include **c:\mssql\binn** (or the directory you installed to). Delete any Sybase directories in the path.
2	Move the **mssql\binn** entry to the beginning of the path to ensure that no other open client files are referenced before the Microsoft SQL Server files. Example: **setpath=c:\mssql\binn;c:\mssql\bin;c:\dos;c:\nw;c:\windows**
3	Shut down and restart the client workstation.

Windows NT

Use the following procedure to view and edit the path in Windows NT:

Step	Action
1	Right-mouse click on the My Computer icon on the client workstation desktop or Open Windows Explorer, and click on Properties.
2	Click on the Environment Tab, and highlight the Path entry in the System Variables list.
3	Edit the path at the bottom of the window, and add c:\mssql\bin: Example**:** **Variable: Path** **Value: %SystemRoot%\system32;%SystemRoot%;c:\mssql7\binn%;c:\mssql\bin;c:\sstrm60\rpttools;c:\sstrm60**
4	Click **Set**, **Apply**, then **OK**.

Configuring the Microsoft SQL Server Client (32 bit)

Use the following procedure to configure the Microsoft SQL Server client:

Step	Action
1	Open the Client Network Utility in the Microsoft SQL Server 7.0 program group.
2	On the General tab, set the default network library to TCP/IP and ensure that TCP/IP is listed on the Network Libraries tab.
3	On the General tab, click Add. **Result:** The Add Network Library Configuration dialog box is displayed.
4	Enter the server information and click OK. Example: **Server Alias: ATLDEVSQL10** **Computer Name: ATLDEVSQL10** **Port Number: 6000** **Network Library: TCP/IP**
5	Click OK to save the settings.
6	Click Apply and then OK to close the Client Network Utility.

Checking Connectivity

Use the following procedure to verify connectivity.

Step	Action
1	Select Query Analyzer from the Microsoft SQL Server 7.0 program group. **Result:** The Connect to SQL Server dialog box is displayed.
2	Select the server that you want to check.
3	Ensure the Use SQL Server Authentication option is selected.
4	Enter the user ID and password to use to log in.
5	Click OK. **Result:** The Query Analyzer is displayed.
6	Run a simple query (for example, sp_help) and ensure that data is returned.

Installing Sybase Open Client

The Reporting Tools applications require

- 16-bit Sybase Open Client 11.1.1
- 32-bit Sybase Open Client 12.0 (this is required for a minimum installation of SmartStream)
- 16-bit ODBC driver.

For each server you plan to use with Reporting Tools, you have to define a 16-bit Sybase server, a 32-bit Sybase server, and a 16-bit ODBC data source.

Installing Sybase Open Client (16 bit)

Use the following procedure to install the 16-bit version of Sybase Open Client:

Step	Action
1	Run the setup.exe located in the **\openc1111\client\win31** directory and install the 16-bit components.
2	Select Open Client Runtime and continue through the installation wizard, and click Install.

Configuring 16-bit Sybase Servers

The 16-bit program icons are in the Sybase for Windows program group. Use the following procedure to configure 16-bit Sybase data sources:

Step	Action
1	Open the OCS Configuration utility (16 bit).
2	Select the Net Library tab.
3	Select the platform Win31 and the Net-Lib driver for the TCP protocol, WNLWNSCK, and click OK.
4	Open the 16-bit dsedit tool.
5	Click OK on the Select Directory Service dialog.
6	Select Server Object…Add from the menu bar.
7	Enter the name of the destination server, and click OK.
8	Highlight the attribute called ServerAddress and double click.
9	Click ADD in the Network Address Attribute window.
10	In the Protocol list box, select TCP.

Step	Action
11	Type the connection string in the Network Address field, click OK, and click OK again to return to the main dsedit window. Example**: frmhp52,3200**
12	Select Server Object…Ping form the menu bar to confirm connectivity.
13	Repeat this procedure for each destination server.
14	Change the path statement to include **c:\sybase\bin** and **c:\sybase\dll**.

Installing Sybase Open Client (32 bit)

Use the following procedure to install the 32-bit version of Sybase Open Client:

Step	Action
1	Run setup.exe from the Sybase 12.0 Open Client CD or from the file server. **Note:** If you are running the installation program from a network, be sure to map a permanent path to the location of the Sybase 12.0 Open Client installation files. **Result:** The Sybase Installer opens then the Installation Type dialog box is displayed.
2	Click Customized Install and then click Next. **Result:** The Choose Directory dialog box is displayed.
3	Enter the directory where you want to install Sybase 12.0 Open Client and click Next. **Note:** The setup program installs Sybase 12.0 Open Client to the *drive***:\Sybase\OCS-12_0** directory, so even if you have a previous version of Sybase, you can use the Sybase directory as the installation directory. **Result:** The Component Selection dialog box is displayed.
4	Select the following components and click Next: ▪ Sybase Central ASE Plug-in ▪ Language Modules ▪ Connectivity ▪ Sybase ASE ODBC Driver ▪ Sybase ASE OLE DB Provider ▪ SQL Modeler ▪ SQL Remote for ASE **Result:** The Summary dialog box is displayed.
5	Confirm your settings and click Next. **Result:** The installation program begins copying files.

Step	Action
6	If you are prompted to replace any .dll files, click No. **Result:** After the program finishes copying files, it prompts you to reboot.
7	Shut down and restart the workstation. **Result:** The workstation initializes Sybase. After this initialization, the installation is complete.
8	Check your environment variables using the System utility from Control Panel. Ensure that the path to the Sybase 12.0 bin and dll folders are included in the path statement (for example, **c:\Sybase\OCS-12\bin;c:\OCS-12\dll**).

Configuring 32-bit Sybase Servers

The 32-bit program icons are in the Sybase program group. Use the following procedure to configure 32-bit Sybase data sources:

Step	Action
1	Open the Open Client/Open Server (OC/OS) Config utility (32 bit).
2	Click on the Net Library tab.
3	Select the platform NT/WIN95 and the Net-Lib driver for the TCP protocol, NLWNSCK, and click OK.
4	Open the 32-bit dsedit tool.
5	Click OK on the Select Directory Service dialog box.
6	Select Server Object…Add from the menu bar.
7	Type the name of the destination server, and click OK.
8	Highlight the attribute called ServerAddress, and double-click.
9	Click ADD in the Network Address Attribute window.
10	In the Protocol list box, select TCP.
11	Type the connection string in the Network Address field, click OK, and click OK again to return to the dsedit main window.
12	Select Server Object…Ping to confirm connectivity.
13	Repeat these steps for each destination server.

16-bit ODBC Data Sources

Use the 16-bit ODBC Administrator to add data sources to your servers.

Step	Action
1	Run the ODBC Administrator program, odbcadm.exe.

Step	Action
2	On the Install drivers dialog box, select SQL Server, and click OK. **Result**: The ODBC Administrator application prompts you to define the first server.
3	On the Data Source dialog box, click ADD.
4	On the Add Data Source dialog box, select Sybase System 10, and click OK.
5	On the ODBC SQL Server Setup dialog box, enter the following server name values: data source name, description, server. Example: **Data Source Name: frmhp52s3** **Description: frmhp52s3** **Server: frmhp52s3**
6	Click the Advanced button, and set the Yield Proc: 0-Dispatch.
7	Click OK. **Result:** The server you defined appears in the Data Sources list.
8	Repeat this procedure for all servers you need to access from this client workstation.
9	Click Close to exit the ODBC Administrator application.

Installing Microsoft Access 2.0

Microsoft Access 2.0 is a required third-party product for SmartStream Reporting Tools.

Microsoft Access 2.0

Use the following procedure to install Microsoft Access 2.0

Step	Action
1	Run the installation program for Microsoft Access 2.0.
2	Select the Complete/Custom installation and install all components. **Note:** The Access icons are added to the Microsoft Office program group as the default if Microsoft Office is installed on the client.

3	Add the following line to the [ODBC] section of the msacc20.ini file:
	`[ODBC]`
	`DisableAsync=1`
	This line corrects the “ODBC call failed timeout” error when exporting an Access database to an MS SQL Server 6.5 database.

Post-Installation Task for Reporting Tools

After you complete the installation of SmartStream Reporting Tools, perform the following task.

Edit the dbs.ini

Make the following changes to the dbs.ini.

```
Change section

[Report]

Access=path to Access 2.0

Access20=c:\access\msaccess.exe
```

Use the 32-bit NT Poll

Use the 32-bit NT Poll with 16-bit Reporting Tools.

To start a poll shortcut use the path for PSCC0020.exe and add NOSERVICE to end of the path. You can also start the poll from the DOS prompt by locating the directory that contains PSCC0020.exe and typing PSCC0020.exe NOSERVICE.

Register dao2516.dll

Copy the **regsvr.exe** program from your file server to the **c:\windows\system** directory on the client workstation. Register dao2516.dll in the **windows\system** directory by executing the following command:

regsvr c:\windows\system\dao2516.dll

After the command is executed, a message box shows the results of the registration process.

Install the OLE Automation Server

Use the following procedure to install the OLE automation server on your Reporting Tools client workstation:

Step	Action
1	Open Windows Explorer.
2	Find and double-click the following programs: ▪ psrc1032.exe ▪ psrc2032.exe ▪ rcmq1000.exe
3	Access the SmartStream directory at the root of the file server drive and double-click the following files: ole2.reg rereg.exe

8 Preparing the SmartStream Client Workstations

Chapter Contents

8-1 Before You Begin
8-3 Configuring the Client Workstations
8-4 Installing a Mail Product
8-5 Installing Cognos PowerPlay and Impromptu Administrator
8-6 Copying SmartStream Library .pdf Files
8-7 Windows Client Workstations
8-8 Considerations for SmartStream Budget
8-9 Considerations for SmartStream Funds Control
8-10 Considerations for SmartStream Purchasing

Before You Begin

Before preparing the client workstations, you must complete the tasks in these chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server

If you want the SmartStream client workstation to connect to the database servers, you must also perform the tasks in

- Chapter 4, Preparing the Sybase Database Server or Chapter 5, Preparing the Microsoft Database Server
- Chapter 6, Installing SmartStream Products on the Database Server.

Note: If you are installing client workstations that run Reporting Tools applications, complete the procedures in Chapter 7, Considerations for Installing Reporting Tools.

Worksheets

Installation worksheets are provided to help you plan your installation of SmartStream. See Appendix B for the appropriate worksheets.

Disk Sizing Requirements

The following table shows the disk sizing requirements by product for SmartStream client workstations:

Size (MB)	Product
4.3	Allocations
0.7	Analyzer
18.7	Asset Management
5.2	Benefits
5.9	Billing
11.2	Budget Administration and Workbench
28.9	Shared Components
4.4	Consolidations
5.6	Euro Currency
8.0	Funds Control
15.7	Ledger
6.5	Management Reporter
18.2	Payables
25.1	Payroll
25.1	Personnel
8.1	Projects
1.8	Projects Allocations
2.2	Projects Common
19.0	Purchasing
30.2	Receivables
9.5	Reporting Tools
26.8	Reporting Tools Platform
62.5	SmartStream
4.2	Supplies Management

Configuring the Client Workstations

This section applies to SmartStream client workstations in SmartStream environments using Sybase Adaptive Server Enterprise or Microsoft SQL Server.

Perform the following tasks to configure the client workstations where you installed SmartStream products.

TCP/IP Sockets

☐ If you can configure TCP/IP sockets, then configure enough sockets on a client workstation so that you can

- Open multiple windows at once
- Run other products requiring TCP/IP sockets concurrently with various SmartStream products.

It is recommended that you configure at least 30 sockets on each client workstation. For more information, see the TCP/IP documentation for the software that you are using.

If the following message is displayed, you might not have enough TCP/IP sockets, or the client is not set up for TCP/IP:

Unable to connect: SQL Server is unavailable or does not exist.

Installing a Mail Product

This section applies to SmartStream client workstations in SmartStream environments using Sybase Adaptive Server Enterprise or Microsoft SQL Server.

Order of Installation

A mail product must be installed on each SmartStream client workstation before you install SmartStream on the client workstation.

Windows Messaging

If your mail product must interface with Windows Messaging, install Windows Messaging first then your mail product.

Already Installed Products

If you have already installed a mail product that is supported by SmartStream, do not install another mail product on your client workstation.

Choosing a Mail Product

- ☐ Use the AnswerLink Bulletin Board to access the Supported Technical Environments topic for information about the mail systems that are supported.

Installing Cognos PowerPlay and Impromptu Administrator

For SmartStream 6.5.02 and earlier only, PowerPlay 5.21 must be available to users who are

- Installing SmartStream Analyzer
- DSS Viewer customers.

PowerPlay 6.61 and Impromptu Administrator 6.0 must be available to users who are

- Installing Open Analyzer
- Using PowerPlay natively.

Warning: If you plan to install both versions of PowerPlay, install the 5.21 version **first**, then install the 6.61 version.

It is recommended that you create a PowerPlay Enterprise Setup Server on the file server so that PowerPlay can be installed easily on the client workstation.

Installing Cognos PowerPlay

Whether you plan to install SmartStream locally on the client workstation or from the network on the client workstation, during the PowerPlay installation process, select the default options.

Selecting these options installs the following components:

- PowerPlay
- Transformer
- Help

After installing PowerPlay, include the path for PowerPlay in the environment path (for example, **c:\program files\cognos\cer1\bin**).

For information about installing PowerPlay, see the Cognos PowerPlay *Installation Guide*.

Installing Cognos Impromptu Administrator

Select the default option for installing Impromptu Administrator.

Copying SmartStream Library .pdf Files

You can access the SmartStream Library .pdf files from the SmartStream Library compact disc, or you can copy them to your file server or the client workstations.

For more information, see Chapter 13, Copying SmartStream Library PDF Files.

Windows Client Workstations

If you are installing SmartStream on a Windows client workstation, perform the following setup tasks.

Setting Up Open Client on a Windows Client Workstation

Use the following procedure to create the environment variables manually:

Step	Action
1	Access the System icon from the Windows Control Panel.
2	Add the following environment variables to the System Environment Variables: **SYBASE=***x*:**Sybase** **DSQUERY=SYBASE** where *x*:\ is the directory where you have installed Open Client. **Note:** Be sure to set these variables before installation because the installation destination directory is determined by the SYBASE environmental variable.
3	Ensure that the first entry in the client workstation path is the directory containing the Open Client .dll files.

Considerations for SmartStream Budget

This section applies to SmartStream client workstations in SmartStream environments using Sybase Adaptive Server Enterprise or Microsoft SQL Server.

☐ If you are going into production and have finished setting up Enterprise Policy, you run the budent32.exe program.

The budent32.exe program should be run by the system administrator at the following time:

- After SmartStream Budget is installed on the database server
- After Enterprise Policy is established
- After one SmartStream client workstation is installed with SmartStream Budget
- Before users install the Workbench on their client workstation

For more information about the budent32.exe program, see Chapter 14, After Completing the Setup Process.

Considerations for SmartStream Funds Control

Installation of a SmartStream Funds Control client is not required on all workstations. The Funds Control available funds checking program (ffcc1000.dll) is installed together with the SmartStream Shared Components.

This is sufficient for users who enter and maintain only Procurement, Ledger, and Receivable documents that require undergoing an available funds checking process.

Administrators and Budget Managers

For administrators and budget managers who have to set up Funds Control policies, consult

- Fund Control Balances
- Maintain Funds Control Budgets
- Manage Funds Control Exceptions.

A full SmartStream Funds Control client installation is required.

Considerations for SmartStream Purchasing

If you install SmartStream Purchasing, SmartStream provides the capability of faxing purchase orders to your vendors using any fax software that complies with component object model (COM) standards.

If you plan to take advantage of this capablilty, consider the following information.

Sample Code

Sample code for this function is delivered in two COM-compliant .dll files, which use the COM format that the Captaris RightFax™ fax software uses:

- **72_mpofax.dll** (supports RightFax 7.2)
- **85_mpofax.dll** (supports RightFax 8.5)

These files reside in the file server's **utility\samples\faxintg** directory. How you use these files depends on the fax software you use.

RightFax Users

If you use RightFax, before you can fax purchase orders, you must

- Change the name of the sample .dll file that supports the release of RightFax you use to **MPOFAX.dll**.
- Copy the sample .dll file that you renamed from the file server directory to your SmartStream client or Job Server workstations.

Users of Fax Software Other Than RightFax

If your fax software uses a different COM format, before you can fax purchase orders, you must

- Change the name of one of the sample .dll files to **MPOFAX.dll**.
- Tailor MPOFAX.dll to support the format your fax software uses.

  For guidelines to help you tailor the MPOFAX.dll, see Fax COM DLL in the *Shared Components Technical Reference*.

- Copy the sample .dll file that you renamed and tailored from the file server directory to your SmartStream client or Job Server workstations.

Purchasing .mdb

Regardless of which fax software you use, you must make additional changes to SmartStream, including changes to the purchasing .mdb, **mpoact32.mdb**.

You can make these changes to the .mdb on the file server before SmartStream client installation or to the .mdb on each SmartStream client after the SmartStream client installation process is complete. For more information about the changes required to fax purchase orders, see Producing Output for Purchase Orders in the SmartStream *Financials Technical Reference*.

9 Installing SmartStream Products on the Client Workstations

Chapter Contents

9-1 Before You Begin
9-2 About the SmartStream Client Workstation Setup Program
9-4 Setting Up Profiles
9-5 How the Setup Program Uses Profiles
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9-16 Post-Installation Task for SmartStream Purchasing
9-18 Considerations for Document Enablement
9-19 Uninstalling SmartStream Software from a Client Workstation
9-20 Considerations for Upgrading SmartStream
9-21 Installing SmartStream Builder on the Client Workstation
9-23 Considerations for Using Microsoft Terminal Services (MTS)

Before You Begin

Before installing SmartStream products on client workstations, complete the tasks in the following chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server
- Chapter 8, Preparing the SmartStream Client Workstations

Worksheets

Installation worksheets are provided to help you plan your installation of SmartStream. See Appendix B for the SmartStream Client Workstation Worksheet.

About the SmartStream Client Workstation Setup Program

System administrators have different approaches to installing software on the SmartStream client workstations. Some let users install their own software. Others prefer a more centralized approach in which they either perform or direct the installation process. You can use the setup program to install software using both approaches.

How the Setup Program Works

The two methods of running the setup program are

- Simple
- Custom.

The method you use depends on the information you enter in the command line when you start the setup program. For more information about command line entries, see Running the Setup Program in this chapter.

Simple

The setup program installs software according to the system administrator's specifications with minimal user interaction.

The simple method is useful in an enterprise that is centralized. The system administrator determines what SmartStream products the user installs and where they are installed. The SmartStream user does not need to know how to install SmartStream.

Profiles

When the setup program is run using the simple method, it uses a profile. A *profile* is a file that contains information the setup program requires for installing software. For example, a profile contains the destination directory, the products to install, and the type of installation.

The system administrator can create a profile for each user or for each group of users that share the same installation requirements.

Example

All members of a department in your enterprise have the same installation requirements, and the workstations for the members of this department have the same configuration. The system administrator sets up a profile that specifies how SmartStream is installed for all users in this group. The users start the setup program and install the software without further intervention.

The manager can have different installation requirements from the group. The system administrator can create a profile used only by the manager or let the manager run the setup program using the Custom method.

Custom

Users can run the setup program if they are allowed to install software according to their personal specifications.

The Custom method is useful in an enterprise that is decentralized because the individual user decides what products to install and where to install them.

Setting Up Profiles

To set up profiles, use the setup program. Be sure to start the setup program using the Custom method.

Starting the Setup Program Using the Custom Method

To start the setup program using the custom method, add */a* to the command that starts the setup program.

Creating a Profile

You can create new profiles or change existing ones.

To create a profile, use one of the following methods:

- Enter all the information needed to install SmartStream to your specifications and save the information as a new profile.
- Select an existing profile, change it, then save it with a new file name. The setup program does not change the original profile.

Location

Store the profiles in the same directory as the setup program.

How the Setup Program Uses Profiles

To install SmartStream using the Simple method, you must first create a profile. For more information about setting up profiles, see the section Setting Up Profiles in this chapter.

When you use the Simple method for installation, the setup program uses profiles as follows:

Stage	Description
1	The user starts the setup program on the file server.
2	The setup program searches the directory containing the setup program for profiles.
3	The setup program displays the Profile Selection window and the profiles that are set up.
4	The user selects a profile.
5	The setup program starts the installation process.

Running the Setup Program

You can run the setup program using the Simple and Custom methods.

Simple

Language	Setup located in…
English	*drive:**directory***ss**
Other Languages	*drive:**directory**language directory*\

Custom

Note: The **/a** is required to start the setup program for the Custom method.

Language...	Setup located in...
English	*drive:**directory***ss\setup /a**
Other Languages	*drive:**directory**language directory***\setup /a**

Product Selection

Some products require other products to function properly. Therefore, when you select one product, another product might also appear in the list of products to install.

Type of Installation

One of the installation decisions you must make is whether to install the SmartStream client on individual workstations or on the network. If you choose the network installation option, only a few files are copied to the workstation. The rest of the files are accessed from the file server through the network as the SmartStream programs use them. This remote access increases network traffic significantly and results in slower response times for SmartStream users.

Note: If your enterprise needs a network installation solution, it is recommended that you use Microsoft Terminal Services to implement the client installation. For more information, see the *Thin Client Installation Guide*.

Results of Running the Setup Program

The setup program performs the following tasks during the installation process:

- Generates the dbsfiles.log file, which contains a list of all the files copied to the client workstation. The dbsfiles.log file is located in the destination directory.
- Generates a dbs.ini file located in the destination directory

- Adds the following entries to your win.ini file (in the directory where SmartStream is installed on the client workstation):

  [DBS]
  CurrentRelease=SS65
  SS65=*drive**directory*\dbs.ini

- Compares files copied from the file server to the client workstation.

If the setup program finds files with the same name and...	Then the files are...
The date and version number match	Copied.
The version number or date of the files copied are more recent than that of the files in the destination directory	Copied.

The names of SmartStream files that are not copied to the client workstation are listed in the setup.err file.

SmartStream Builder Documentation

The SmartStream Builder documentation is an HTML Help file (SSBBooks.chm). To use this documentation you need Internet Explorer 4.01 or later.

If you receive an error message while attempting to run the SmartStream Builder documentation, you need to update one or all of the following files:

- hhctrl.ocx
- hh.exe
- itircl.dll
- itss.dll

To update these files, run the HTML Help update program (hhupd.exe) installed in the STRMBLDR directory on your SmartStream file server.

Troubleshooting

Problem

The setup program

- Displays messages indicating that it did not install all the SmartStream files to the client workstation
- Does not run when you start SmartStream.

Possible Solution: Copy Files

If the message lists the specific files that are not installed, then use the following procedure:

Step	Action
1	Move the files listed in the setup.err file from the local directories to another directory.
2	Copy the files listed in the setup.err file from the file server to your client workstation.

Installing Microsoft Distributed Transaction Coordinator

You must also install or activate the Microsoft Distributed Transaction Coordinator (DTC) on the SmartStream client and the Job Server workstation.

Windows NT 4.0 Server

For information about installing the DTC software, see the readme.txt file at this address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6

You can find the DTC setup program at the following address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6/i386

Windows 2000 or XP

The DTC is automatically installed with Windows 2000 and XP Professional, but you must complete the following procedure to ensure that the DTC service starts automatically when the server is started:

Note: You must be logged on as a user with **administrative rights**.

Step	Action
1	Open Control Panel.
2	Click Administrative Tools, then click Services, and select **MSDTC** (the Distributed Transaction Coordinator applet).
3	Change the Startup Type setting to **Automatic**, click Start under Service status, and click OK.
4	Close the Distributed Transaction Coordinator applet.
5	Close the windows that were opened.

Post-Installation Tasks for SmartStream

If SmartStream is Running from the Network

Open Files Parameter

Increase the settings for the maximum number of open network files on all SmartStream client workstations using the following procedure:

Step	Action
1	At the command prompt, type dir *.pbd.
2	Increase the maximum number of open network files to an amount greater than the number of .pbd files. For more information, see the documentation for your network operating system.

SmartStream or SmartStream Reporting Tools

If you installed Reporting Tools, by selecting either SmartStream or Reporting Tools during the installation process, you register the dao2516.dll file using the regsvr.exe program.

The regsvr.exe program is located in the **\ss** directory on the file server. The dao2516.dll file is in the **windows\system** directory. Run the following command from a DOS prompt:

*drive:**directory*\ss\regsvr.exe c:\windows\system\dao2516.dll

Where *drive:**directory* is the location where SmartStream is installed on the file server.

SmartStream, Analyzer, Management Reporter, or Reporting Tools

After completing the installation of SmartStream, run the rereg.exe utility included in the SmartStream Reporting Tools program group. This utility registers the Object Linking and Embedding (OLE) servers.

Post-Installation Tasks for SmartStream Budget

Perform the following tasks after installing SmartStream Budget.

Customizing the budget.ini File

Run the budent32.exe program that resides in the **ss/enterprz** directory where SmartStream is installed on the file server. This customizes the budget.ini file that provides Workbench with the basic information that it needs for processing.

For more information about tailoring your budget.ini file, see Before Installing Budget Workbench on the Client Workstations in the *Budget* guide.

Setting Up Budget Security

You need to complete the following task to set up security for Budget properly:

For Working with Job Scheduler

Set up a SmartStream user with the following identifier : DBSBATCH.

Then log on as that user and create a security profile for DBSBATCH for the database you are using.

For Working with the Budget Database

For the Budget database, grant each Budget user the permission to create tables using the following command:

```
USE DBSbdgt

go

GRANT CREATE TABLE TO<user_id>
```

For All Users

Create a security profile for each Budget user ID.

Setting Up a Template for Workbench Import Requests

Before you import data to the Workbench, you must set up a template using Job Scheduler and the following information:

Field	Value
Job Name	BUD_IMP
Job Qualifier	BUD_IMP
Public check box	Checked
Security Profile	Do not enter a value
Program Name	bbdc0100
Parameters	Do not enter values
Poll	The poll you intend to use

Defining an ODBC Data Source

To use Pivot Table functionality, you need to define an ODBC data source on your client workstation.

Add a data source named DBS. This data source uses the Access database driver to read data from the database used with the WorkBench.

Required Information

Use the following information when you set up the data source:

- Choose Microsoft Access as the ODBC driver.
- Enter DBS as the data source name.
- Select dbs.mdb as the database. The dbs.mdb file is located in the directory where you installed SmartStream Budget.
- Select budsys.mda as your system database

Note: If you do not have an ODBC icon in a Program Manager group or an ODBC application in Control Panel, you probably have not installed ODBC.

Excel 2000 or XP

You must turn off the Excel macro virus protection for the Pivot Table window to open. To turn off the macro virus protection, complete the following steps:

Step	Action
1	Open Excel.
2	Click the Tools menu, go to Macro, and click Security. **Result:** The Security dialog box appears.
3	On the Security Level tab, click Low.
4	Click OK to save your change and close the dialog box.

Setting Up Attached Notes

If your client workstation had an earlier version of SmartStream Budget installed, reset the .wri extension to associate with the wordpad.exe.

Use one of the following methods to associate the .wri extension with wordpad.exe:

- Use the Windows Explorer
- Attempt to access an Attached Note, and select Yes when you are prompted to reassociate the .wri extension with wordpad.exe.

SmartStream Budget Workbench

If you install the SmartStream Budget Workbench only, run the psrc2032.exe program to register it as an OLE server program. The psrc2032.exe program is located in the **\rpttools** subdirectory of the destination directory.

Installing Budget on a Remote Workstation

A *remote workstation* is a unit that is not connected to the network. For example, you can

- Load Budget files and data from the WorkBench onto a laptop computer
- Update the data during a business trip
- Pass the updated data back to the WorkBench, and then to the file server.

For information about setting up a remote workstation for Budget, see the *Budget* guide.

Post-Installation Task for the SmartStream Reference Tool

You need to define an ODBC data source on your client workstation for the database server to which the SmartStream Reference Tool needs access.

Considerations

As you set up the data source for the database server, consider the following information as you make your selections:

- Choose one of the following drivers.

For this DBMS…	Choose this driver…
Sybase Adaptive Server Enterprise	Sybase System.
Microsoft SQL Server	SQL Server.

- The data source name is usually a database server name.

Post-Installation Task for SmartStream Projects

If you install SmartStream Projects, run the following programs in the order listed:

- psrc2032.exe to register SmartStream Projects as an OLE server program
- psrc1032.exe

These programs are located in the **\rpttools** subdirectory of the destination directory on the SmartStream client workstation.

Post-Installation Task for SmartStream Purchasing

If you install SmartStream Purchasing, SmartStream provides the capability of faxing purchase orders to your vendors using any fax software that complies with component object model (COM) standards.

To take advantage of this capablilty, you must perform some post-installation tasks.

Sample Code

Sample code for this function is delivered in two COM-compliant .dll files, which use the COM format that the Captaris RightFax™ fax software uses:

- **72_mpofax.dll** (supports RightFax 7.2)
- **85_mpofax.dll** (supports RightFax 8.5)

These files reside in the file server's **utility\samples\faxintg** directory. How you use these files depends on the fax software you use.

RightFax Users

If you use RightFax, before you can fax purchase orders, you must

- Change the name of the sample .dll file that supports the release of RightFax you use to **MPOFAX.dll**.
- Copy the sample .dll file that you renamed from the file server directory to your SmartStream client or Job Server workstations.

Users of Fax Software Other Than RightFax

If your fax software uses a different COM format, before you can fax purchase orders, you must

- Change the name of one of the sample .dll files to **MPOFAX.dll**.
- Tailor MPOFAX.dll to support the format your fax software uses.

  For guidelines to help you tailor the MPOFAX.dll, see Fax COM DLL in the *Shared Components Technical Reference*.

- Copy the sample .dll file that you renamed and tailored from the file server directory to your SmartStream client or Job Server workstations.

Purchasing .mdb

Regardless of which fax software you use, you must make additional changes to the SmartStream client workstation, including changes to the purchasing .mdb, **mpoact32.mdb**.

You can make these changes to the .mdb on the file server before the SmartStream client installation or to the .mdb on each SmartStream client after the SmartStream client installation process is complete. For more information about the changes required to fax purchase orders, see Producing Output for Purchase Orders in the SmartStream *Financials Technical Reference*.

Considerations for Document Enablement

If you want to use the Panagon integrated document management system from FileNET for attaching documents, you must install the Panagon desktop on the client. Also, you need to have a Panagon repository configured for storing and attaching documents.

Uninstalling SmartStream Software from a Client Workstation

This section discusses uninstalling the following SmartStream software from the client workstation:

- SmartStream client
- SmartStream products

SmartStream Client

To uninstall the SmartStream client, complete the following steps:

Step	Action
1	Open Control Panel.
2	Double-click Add/Remove Programs.
3	Select SmartStream Client 6.5 from the list of programs and click Add/Remove.
4	Click OK.

The uninstall program removes all the software installed on the workstation during the SmartStream client installation. It leaves any files and directories created after the client was installed and the dbsfiles.log and setup.err files.

Also, the uninstall program leaves any files with a reference count greater than one on the workstation. If you do not uninstall the client before reinstalling it on a workstation, most of the files, including shared files, will have a reference count greater than one; therefore, the uninstall program will not remove them.

SmartStream Products

When you uninstall SmartStream products, the uninstall program removes all the files for those products that are installed on the client workstation. It leaves files created after the SmartStream products were installed.

Use the same Add/Remove Programs utility you use in uninstalling the client to uninstall SmartStream products. SmartStream directories that were added to the path are not uninstalled.

Considerations for Upgrading SmartStream

Consider the following information when planning a strategy for upgrading your SmartStream client workstations.

Changing from a Local to Network Installation of SmartStream

If you previously installed SmartStream locally and intend to install from the network, uninstall SmartStream.

Uninstalling Previous Release

You must uninstall the previous release of SmartStream on your client workstations before you can install the latest release on them.

Cleaning Up SmartStream Products You No Longer Use

As you install new releases of SmartStream, your needs can change. If you previously installed SmartStream products and do not want to install the latest version of all these SmartStream products, perform the following tasks to keep your client workstation free of software you do not use:

- If you customized .mdb files on your local client workstation, move them from the SmartStream directory to another directory.
- Use the Add/Remove Programs utility on the client workstation's Control Panel to uninstall SmartStream products.
- Install the SmartStream products you want on your client workstation.

Automated Client Reinstallation

The Automated Client Installation process automatically uninstalls the previous release of SmartStream and installs the latest release without user intervention on multiple client workstations. This process also provides a utility that scans the files on the client workstations to determine whether they have the software required for the new release installed.

UPDATE Method of Upgrading Client Workstations

The UPDATE method provides another way of upgrading multiple client workstations to the new release without user intervention. After you install the new release on your file server, you can apply the updated files to your client workstations by running the client installation part of the Automated Client Reinstallation process in batch mode with a command parameter of UPDATE. This method is especially efficient if you are installing the new release of the same SmartStream products to the same directory.

Installing SmartStream Builder on the Client Workstation

This section describes the installation of SmartStream Builder on the SmartStream client workstation.

Running the Setup Program

Note: If you previously installed SmartStream Builder and are installing it again on the same drive and directory, the setup program overwrites the previous version.

To run the setup program, complete the following steps:

Step	Action
1	Run \strmbldr\setup.exe located on your SmartStream file server. **Result**: The Welcome to SmartStream Builder Client dialog box appears.
2	Click Next . **Result**: The Destination Directory dialog box appears.
3	Select the directory where you plan to install the SmartStream Builder Client and click Next. **Warning**: Do not install SmartStream Builder in your SmartStream directory. **Result**: The SmartStream Client Directory dialog box appears.
4	Enter the directory where the SmartStream client software has been installed and click Next. **Result**: The SmartStream Builder Client Summary dialog box appears.
5	Review your selections and click Next to finish the installation.

Post-Installation Task

Use the following procedure to copy the SmartStream bitmaps you need to the client workstation:

Step	Action
1	Access the **\strmbldr** directory on the file server.
2	Copy the following bitmaps to your client workstation for the products you are customizing: ▪ .bmp. See the following table to determine which .bmp files you need. ▪ .ico ▪ shr*.bmp

Bitmap Naming Conventions

This SmartStream product...	Uses this naming convention...
Allocations	fal*.bmp
Asset Management	ffa*.bmp
Budget	bbd*.bmp, fgl*.bmp
Consolidations	fco*.bmp
Financials - Other Products	fbb*.bmp, fbd*.bmp, fbe*.bmp, fbi*.bmp, fbl*.bmp, fbm*.bmp, fbo*.bmp, fbr*.bmp, fbs*.bmp, fbv*.bmp, fbw*.bmp, fsa*.bmp
Funds Control	ffc*.bmp
Human Resources	hhr*.bmp
Ledger	fgl*.bmp, fje*.bmp, bbd*.bmp
Payables	fap*.bmp
Procurement Common	mcd*.bmp
Projects	fpj*.bmp
Projects Allocations	fpa*.bmp
Projects Common	fpc*.bmp
Purchasing	mpc*.bmp
Purchasing - Order	mpo*.bmp
Purchasing - Requisition	mrq*.bmp
Receivables	far*.bmp
Receiving	mds*.bmp
Shared Components	ccf*.bmp
Shared Components - Bank	fbk*.bmp
Shared Components - Calendar	ccl*.bmp, cos*.bmp
Shared Components - Currency	fcm*.bmp
Shared Components - Vendor	cvn*.bmp, dsg*.bmp
SmartStream (Query & Reporter, Management Reporter, Analyzer)	mapi*.bmp, p*.bmp, ss*.bmp, shr*.bmp, src*.bmp
Supplies Management	mbm*.bmp, mim*.bmp, mcd*.bmp, mcm*.bmp, msc*.bmp, mds*.bmp, mbl*.bmp

Considerations for Using Microsoft Terminal Services (MTS)

Microsoft recommends using user-global installation for Windows applications. Using this method, an application is installed once by an administrator and then can be run by anyone who logs into that Terminal Services.

For more information about installing and configuring SmartStream on a Microsoft Terminal Services and Citrix Metaframe platform, see the *Thin Client Installation Guide*.

10 Installing the SmartStream Mail Gateway

Chapter Contents

10-1 Special Consideration
10-2 Before You Begin
10-3 About the SmartStream Mail Gateway Setup Program
10-4 Prerequisite Tasks
10-6 Installing the SmartStream Mail Gateway
10-7 Post Installation Tasks
10-10 Logging On to the SmartStream Mail Gateway
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Special Consideration

Before using this chapter, determine whether the SmartStream Mail Gateway enhancement in Solution 22327 has been applied.

- If it has been applied, install the SmartStream Mail Gateway using the instructions in this chapter.
- If it has not been applied, install the SmartStream Mail Gateway using the instructions in the Installing the Mail Gateway (Pre-enhancement Solution 22327) topic on the AnswerLink Bulletin Board under SmartStream; Platform, Reporting, and Tools; Mail Gateway; Technical How To's

Before You Begin

Before installing the SmartStream Mail Gateway, complete the tasks in these chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server
- Chapter 4, Preparing the Sybase Database Server, or Chapter 5, Preparing the Microsoft Database Server
- Chapter 6, Installing SmartStream Products on the Database Server

Worksheets

Installation worksheets are provided to help you plan your installation of SmartStream. See Appendix B for the appropriate worksheets.

About the SmartStream Mail Gateway Setup Program

The Mail Gateway provides a connection between the

- Job Scheduler and your e-mail system
- Workflow and your e-mail system if you use SmartStream Mail-enabled To Do tasks.

The SmartStream Mail Gateway Setup program installs the Mail Gateway on a workstation.

Mail Server Considerations

SmartStream Mail Gateway is designed to work with a mail server using the Simple Mail Transport Protocol (SMTP) as the primary outgoing mail protocol. If your mail server does not meet all requirements listed in the Supported Technical Environments topic on the AnswerLink Bulletin Board under SmartStream, Release Information, *release number*, you must enter e-mail addresses manually using the SMTP, or Internet, format (*anyone@anycompany.anydomain*) on your SmartStream client.

Prerequisite Tasks

Complete the following tasks before installing the SmartStream Mail Gateway.

Sybase Adaptive Server Enterprise Requirement

- ☐ If you install in an environment with Sybase Adaptive Server Enterprise software, you must install the 32-bit version of Open Client for Microsoft Windows. For information about installing Open Client software, see Chapter 2, Preparing the Environment.

Microsoft SQL Server Requirement

- ☐ If you install in an environment with Microsoft SQL Server software, install the 32-bit version of Microsoft SQL Server Client software. For information about installing Microsoft SQL Server Client software, see Chapter 2, Preparing the Environment.

- ☐ Create a SmartStream Mail Gateway mail directory. The directory must be used only for mail. SmartStream Mail Gateway polls for new mail messages in the following directory:

If SmartStream is installed in a...	The mail directory must be installed in...
Supported Windows environment	A drive and directory that is shared by the Windows server and Windows workstation that serves as the SmartStream Mail Gateway.
UNIX environment	Either ▪ A drive and directory on the LAN ▪ A directory on the hard drive of the client workstation that serves as the SmartStream Mail Gateway.

- ☐ Ensure that the LAN ID used to log on to the SmartStream Mail Gateway workstation has read and write access to the SmartStream Mail Gateway mail directory. The SmartStream Mail Gateway uses this directory as a staging area for passing mail messages to the mail post office.

- ☐ Ensure that the LAN ID used to log on to the SmartStream Mail Gateway workstation has connectivity to the enterprise mail server.

- ☐ If the SmartStream Mail Gateway mail directory is installed on the LAN, ensure that UNIX can write to it.

- ☐ If you are in a UNIX environment, run the File Transfer Program (FTP) program on the SmartStream Mail Gateway client workstation.

If your communications system is...	Use the...
Novell LAN Workplace	Windows program, serveftp.exe.
Windows	FTP Server Services.

If the FTP process is not running, the Master Scheduler program cannot transfer electronic mail to the SmartStream Mail Gateway.

- ☐ If you previously had Mail Gateway installed, make sure that all mail is processed and that the mail directory is empty. Then uninstall and delete the old Mail Gateway components before installing the SMTP Mail Gateway.

For more information about setting up the SmartStream Mail Gateway, see the SmartStream Library.

Considerations for Installing the SmartStream Mail Gateway in a Windows Environment

If you run Master Scheduler or Mail Gateway, or both, as a service, you must be a member of the local administrator's group to start and stop the Master Scheduler or Mail Gateway service.

Installing the SmartStream Mail Gateway

Complete the following information before running the Setup program for the SmartStream Mail Gateway.

Setup Options

Set up the following options for the mail gateway:

Option	Select or Choose
Destination Directory	The default is *drive*:\sstrm65\mailgate.
Directory	The directory that SmartStream Mail Gateway checks for new mail. This was created during the prerequisite tasks. The default is *drive*:\maildir.
Mail Host Domain and Port	The server name and port number for your enterprise mail server.
Mail Gateway E-mail	The from address for your Mail Gateway. This address is displayed in the From field of mail sent by the Mail Gateway.
Mail Gateway Administrator	The name and e-mail address of your Mail Gateway administrator. This is the reply-to address of mail sent by the Mail Gateway.
Interval	The frequency, in minutes, that the mail directory is checked for new mail. Enter a value up to 59.
Log	A log file that stores processing and error information during the operation of the SmartStream Mail Gateway. The default is *drive*:\sstrm65\mailgate\mailgate.log.

Running the Setup Program

Run the setup.exe program located in the following directory:

*drive:**directory***mailsmtp**

where *drive:**directory*\ is the location where SmartStream is installed on the file server.

Post Installation Tasks

Complete the following tasks after installing the SmartStream Mail Gateway.

Prerequisite Task for Running Mail Gateway As a Service

If you want to run Mail Gateway as a service and you installed it on workstation with a SmartStream client, copy the dbserver.ini file from the file server to the directory where the dbs.ini file resides. Change the DBSERVER_INI= parameter in the dbs.ini file to point to the new location of the dbserver.ini file on the workstation.

Upgrading SmartStream System Components

The Mail Gateway Upgrade Utility upgrades the SmartStream system components necessary to use Mail Gateway. Before using the SmartStream Mail Gateway, you must run this utility on a workstation where a SmartStream client and a mail client are installed.

Recommendation: All SmartStream e-mail addresses used to send mail through Mail Gateway are converted by this process; therefore, back up your databases before running this process.

Prerequisite

You must refresh your SmartStream client before running the utility program.

Run Options

The upgrade utility has two run options:

Option	Description
Create List	Creates a list of unresolved e-mail addresses in a tab-delimited text file or a Microsoft Excel spreadsheet with two columns: TableEmail NewEmail. **Note:** This is an optional step. If you choose not to run this step, all unresolvable e-mail addresses are replaced with the identifier entered in the Replacement E-mail ID field on the Login/Options window. **Recommendation:** If you have e-mail addresses for delivering To Do or End of Job messages stored in your SmartStream tables, run the Create List option before you run the Update option.
Update	Updates the e-mail addresses and database tables.

Running the Mail Gateway Upgrade Utility

Run the mailutl.exe program located in the following directory:

*drive:**directory***mailsmtp\mailutl**

where *drive:**directory* is the location where SmartStream is installed on the file server.

Create List Run Option

Complete the following steps to run the Mail Gateway upgrade utility using the Create List run option:

Step	Action
1	On the Login/Options window, select the Create List option, enter a name for the output file, and click Next. **Result:** The Choose Profile(s) window is displayed.
2	Select the profile or profiles to use to resolve e-mail addresses, and click Next. **Result:** The Set Profile Type / Password window is displayed.
3	Enter a profile type and password for each profile selected, and click Next. **Note:** The password for the mail profile is not validated. Entering an invalid password causes unpredictable results. **Result:** The program lists any unresolvable e-mail addresses in the output file you specify.
4	Open the output file.
5	If the output file is a ▪ Text file (*.txt), for each entry in the file, place the cursor at the end of an unresolved e-mail address, press the **Tab** key, and type the replacement e-mail address. ▪ Microsoft Excel spreadsheet (*xls), for each entry in the file, enter a replacement e-mail address in the NewEmail column. **Note:** The replacement e-mail addresses must be in the Internet format (*anyone@anycompany.anydomain*).
6	Save the edited output file. If the output file is a ▪ Text file, click Save. ▪ Microsoft Excel spreadsheet (*xls), use the Save As option to save the file as a tab-delimited text file (*txt). **Note:** Replacement e-mail addresses are not verified. **Result:** The output file now contains any unresolved e-mail addresses and a replacement for each address.

Update Run Option

Complete the following steps to run the Mail Gateway upgrade utility using the Update run option:

Step	Action
1	On the Login/Options window, select the Update option.
2	Enter an identifier in the Replacement E-mail ID field in the Internet format (*anyone@anycompany.anydomain*). This step is required.
3	If you have an output file from the Create List run, enter its name in the Input File Name field.
4	Click Next. **Result:** The Choose Profile(s) window is displayed
5	Select the profile or profiles to use to resolve e-mail addresses, and click Next. **Result:** The Set Profile Type / Password window is displayed.
6	Enter a profile type and password for each profile selected, and click Next. **Note:** The password for the mail profile is not validated. Entering an invalid password causes unpredictable results. **Result:** The program uses the input file to replace any unresolvable e-mail addresses. If the program encounters an unresolvable e-mail address that does not have a replacement in the input file, or if you did not enter an input file, the program uses the replacement e-mail ID you entered in Step 2 to replace the unresolvable address.
7	Review all output messages in the *drive:\directory***mailsmtp\mailutl\mailutl.log** file. If you find error messages, resolve the errors, restore the databases, and rerun the process.

Logging On to the SmartStream Mail Gateway

Log on to the SmartStream Mail Gateway using the SmartStream Mail Gateway icon on the desktop to start Mail Gateway as an application or by starting the Mail Gateway as a Windows service.

Troubleshooting

If you cannot log on to the Mail Gateway, complete the following tasks:

- Ensure that the logon ID has access to your SmartStream database server.
- Verify that the Mail Gateway Upgrade Utility was run successfully using the Upgrade run option.
- Verify that the Mail Gateway workstation was rebooted after installation.
- If a SmartStream client is on the Mail Gateway workstation, verify that the dbserver.ini file is copied to the workstation and that the dbs.ini file points to the local copy of the dbserver.ini file.

Automatically Logging On

To log on automatically when you start the SmartStream Mail Gateway, add the following entries to the dbs.ini file:

[SmartStream]
UserID=*userid*
[Mail Gateway]
SSPassword=*password*
SilentLogon=1

The user ID and password used for Mail Gateway must be a valid SmartStream administrator ID and password. It is strongly recommended that you use the delivered DBS ID to log on to the Mail Gateway.

Uninstalling the Mail Gateway

To uninstall the SmartStream Mail Gateway, run the setup.exe program located in the following directory:

*drive:**directory***mailsmtp**

where *drive:**directory* is the location where SmartStream is installed on the file server.

11 Installing Job Server

Chapter Contents

11-1 Before You Begin
11-2 Establishing a Connection in the SmartStream Environment
11-3 About the Job Server Setup Program
11-4 Installing Microsoft Distributed Transaction Coordinator
11-5 Running Job Server Programs as Windows Services
11-6 Running Job Server Programs as NOSERVICE for Human Resources
11-7 Setup Options for All Job Server Setup Programs
11-9 Installing Job Server in a UNIX Environment
11-11 Installing Job Server in a Windows Environment
11-12 Post-Installation Tasks
11-14 Adding Job Server Programs Between Releases

Before You Begin

Before installing Job Server, complete the tasks in the following chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server
- Chapter 4, Preparing the Sybase Database Server, or Chapter 5, Preparing the Microsoft Database Server
- Chapter 6, Installing SmartStream Products on the Database Server

Worksheets

Installation worksheets are provided to help you plan your installation of SmartStream. See Appendix B for the appropriate worksheets.

Establishing a Connection in the SmartStream Environment

DBMS/ODBC Software

Sybase Open Client or Microsoft SQL Server Client software and Sybase ODBC Drivers or Microsoft ODBC Drivers must be installed on the job servers to provide a connection to the database servers.

For more information, see Chapter 2, Preparing the Environment.

UNIX Connectivity

The Job Server Setup program uses the rexec protocol to execute commands and transfer files.

About the Job Server Setup Program

The SmartStream Job Server Setup program copies the following programs from the file server to the Windows server or UNIX server:

- Master Scheduler program (pscc0010)
- Poll program (pscc0020)
- Asynchronous Remote Procedure Call (ARPC) programs (pscc0050 and pscc0051)
- Other Job Server programs

To install the Master Scheduler program and one instance of the Poll program, run setup.exe in the following directory:

drive:*directory***batch**

Where *drive*:*directory*\ is the location where SmartStream was installed on the file server.

Installing More Than One Windows or UNIX Job Server

If you install more than one job server on the Windows server or UNIX server, run the Job Server Setup program once for each Poll program.

Installing a Microsoft Windows Job Server

If you use Query & Reporter or want to run scheduled jobs in the Windows environment, run the Job Server Setup program to install the Poll program (pscc0020.exe) on a Windows client workstation.

Installing Microsoft Distributed Transaction Coordinator

You must install or activate Microsoft Distributed Transaction Coordinator (DTC) on the Job Server workstation as well as the SmartStream client.

Windows NT 4.0 Server

For information about installing the DTC software, see the readme.txt file at this address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6

You can find the DTC setup program at the following address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6/i386

Windows 2000 or XP

The DTC is automatically installed with Windows 2000 and XP Professional, but you must complete the following procedure to ensure that the DTC service starts automatically when the server is started:

Note: You must be logged on as a user with **administrative rights.**

Step	Action
1	Open Control Panel.
2	Click Administrative Tools, then click Services, and select **MSDTC** (the Distributed Transaction Coordinator applet).
3	Change the Startup Type setting to **Automatic**, click Start under Service Status, and click OK.
4	Close the Distributed Transaction Coordinator applet.
5	Close the windows that were opened.

Running Job Server Programs as Windows Services

The Windows version of the Job Server Setup program automatically installs Master Scheduler, Poll, and ARPC as Windows services.

Service Names

The names assigned to these services are defined in the batch.lit file in the **\batch\ntintel** directory on the SmartStream file server.

Multiple Copies of Job Server

If you want to install more than one copy of Job Server on one server, you must rename the services so they are not overwritten.

Uninstalling Job Server Programs as Windows Services

- Run the following commands:

```
pscc0010.exe  -Remove("SmartStream Master Scheduler")
pscc0020.exe  -Remove("SmartStream Poll")
pscc0050.exe  -Remove("SmartStream ARPC")
```

Note: If you changed the service names from the default names, use the service names you defined.

- Delete the directory where Job Server files are located.

Running Job Server Programs as NOSERVICE for Human Resources

If you are running HR batch programs, run the Job Server poll program as NOSERVICE.

This is done by running the following command:

```
pscc0020.exe NOSERVICE
```

Printers

For SmartStream HR clients, you must either

- Have a local printer attached to the workstation where Job Server is installed
- Use a network printer.

If you use a network printer, the SmartStream poll must have a network logon ID with access to the printer.

Setup Options for All Job Server Setup Programs

Environment to Install

Choose the environment where you want to install Job Server.

Destination Directory

Windows installations only.

The directory where you want to install all the Job Server programs.

UNIX Server Information

UNIX installations only.

UNIX Host Name The name of the UNIX server where you are installing Job Server.

Logon User ID Up to 30 alphanumeric characters.

The logon ID for the server where you are installing Job Server.

Password Up to 30 alphanumeric characters.

The password for the user ID. This field is encrypted. The password is case sensitive.

UNIX Server Information

UNIX installations only.

Location of SmartStream Job Server Files The directory where you are installing Job Server. Do not enter slashes—forward (/) or backward (\)—in the directory name.

Database Server Information

Database Server Name The name of the server where the table server database cross-reference table (TSDX table) is located.

System Administrator Role ID Up to 30 alphanumeric characters.

The server and database login ID for the server and database that contain the TSDX table. The combination of user ID and password must also be on the server and databases to which the Master Scheduler must log on.

Password Up to 30 alphanumeric characters.

The password for the database server user ID. This field is encrypted. The password is case sensitive.

Poll Information

Poll Name

Up to eight alphanumeric characters in all capital letters.

The name of the poll. The value in this field must match the name of the poll as defined on the Poll Configuration table. This name is displayed in the Poll Name field of the Poll Configuration window.

Path

The path to the Job Server table.

ARPC Server Information

ARPC Server

The name of your Asynchronous Remote Procedure Call (ARPC) server. Enter the name of the database server that runs the Master Scheduler program.

Installing Job Server in a UNIX Environment

This section describes how to install Job Server in a UNIX environment.

Prerequisite Tasks

- ☐ Ensure you have a valid UNIX user ID for the location where you are installing SmartStream Connect.

Running the Setup Program

Run the setup.exe program located in the directory that corresponds with your environment:

*drive:**directory***batch\hp**

*drive:**directory***batch\sun**

*drive:**directory***batch\aix**

where *drive:**directory* is the location where SmartStream is installed on the file server.

Results of Running the Setup Program

The Setup program

- Copies the Job Server programs to the directory you specify
- Records the information you entered during the setup process in this environment's env.ini file.

Troubleshooting

The most common source of trouble is connectivity with the UNIX host where you are installing Job Server. The Job Server Installation program uses the rexec protocol to execute commands and transfer files to the UNIX host. The protocol is implemented using the \bin32\rexec32.dll and \bin32\prog32.dll files. Usually, if rexec runs from the command line, then the installation runs without any problems.

During testing, Geac encountered several situations where the Job Server installation program exited prematurely without issuing warning or error messages. This situation was always traced back to a problem running a command on the UNIX host (out of disk space, no permissions to create directory, and so on). As in previous releases, however, Geac has not determine why diagnostic information is not always transferred back to the Windows client.

Post-Installation Task

☐ If you install SmartStream in a Sybase Adaptive Server Enterprise environment, use the following procedure to ensure that the user ID for the job server connects to the database server:

Step	Action
1	Change the path in the profile of the home directory with the location of the database server programs. Example: **path=/users/sybase/bin**
2	Type the following environment variables in the profile: SYBASE=**/users/sybase** MAIL=**/users/mail**
3	Type the following command: **isql -UDBS -P***password* **-S***servername* **Result:** If you connect to the database server, the following prompt is displayed: 1>
4	Type **exit**.

Installing Job Server in a Windows Environment

This section describes the stages for installing Job Server on a Windows server.

Prerequisite

- ☐ Log on to the Windows server as a system administrator.

Running the Setup Program

Run the setup.exe program located in the following directory:

*drive:**directory***batch\ntintel**

Where *drive:**directory* is the directory where SmartStream was installed on the file server.

Establishing the Connection to the Database Server

Use the following information to establish the connection to your database server.

For SmartStream 6.5.02 and Earlier

If you are installing a Windows Job Server for SmartStream 6.5.02 or earlier, you need to establish a Microsoft SQL Server Client connection to the database server. For information about installing Microsoft SQL Server Client software, see the Microsoft SQL Server Setup Guide.

For SmartStream 6.5.03 and Later

If you are installing a Windows Job Server for SmartStream 6.5.03 or later, you need to establish a Microsoft ODBC connection to the database server. Consider the following information when you add the SmartStream data source using the ODBC Data Source Administrator utility:

- You must enter the same name for the data source and the server.
- The server name you enter for the data source must be the same as the server name you entered in the Table Family Server Database Cross-Reference (tsdx) table.
- The verification of the authenticity of the login ID must be set to SQL Server Authentication.
- The network address defaults if you defined the server during your client installation.

Post-Installation Tasks

SmartStream Payroll

If you licensed SmartStream Payroll, you need to

- Implement ALLTAX
- Apply new control records for SQR reporting.

ALLTAX

To implement ALLTAX, set up the ALLTAX data files on the Job Server where you installed the Payroll Job Server components. Use the following table to determine when to perform this task:

If you have...	Then perform this task...
Not installed SmartStream Payroll before	After completing the installation process as outlined in this guide.
Installed SmartStream Payroll before	After completing the migration process. See the SmartStream *Migration Guide*.

For more information about implementing ALLTAX, see Setting Up ALLTAX in the Payroll Technical Implementation chapter of the *Payroll Technical Reference*.

SQR Reporting

After setting up ALLTAX, you must also apply new control records for SQR reporting. For more information about this process, see Applying New Format Control records in the Regulatory Reporting chapter of the *Payroll Technical Reference*.

SmartStream Purchasing

If you install SmartStream Purchasing, SmartStream provides the capability of faxing purchase orders to your vendors using any fax software that complies with component object model (COM) standards.

To take advantage of this capablilty, you must perform some post-installation tasks.

Sample Code

Sample code for this function is delivered in two COM-compliant .dll files, which use the COM format that the Captaris RightFax™ fax software uses:

- **72_mpofax.dll** (supports RightFax 7.2)
- **85_mpofax.dll** (supports RightFax 8.5)

These files reside in the file server's **utility\samples\faxintg** directory. How you use these files depends on the fax software you use.

RightFax Users

If you use RightFax, before you can fax purchase orders, you must

- Change the name of the sample .dll file that supports the release of RightFax you use to **MPOFAX.dll**.
- Copy the sample .dll file that you renamed from the file server directory to your SmartStream client or Job Server workstations.

Users of Fax Software Other Than RightFax

If your fax software uses a different COM format, before you can fax purchase orders, you must

- Change the name of one of the sample .dll files to **MPOFAX.dll**.
- Tailor MPOFAX.dll to support the format your fax software uses.

  For guidelines to help you tailor the MPOFAX.dll, see Fax COM DLL in the *Shared Components Technical Reference*.

- Copy the sample .dll file that you renamed and tailored from the file server directory to your SmartStream client or Job Server workstations.

Purchasing .mdb

Regardless of which fax software you use, you must make additional changes to SmartStream, including changes to the purchasing .mdb, **mpoact32.mdb**.

You can make these changes to the .mdb on the file server and copy the changed .mdb to the Job Server directory, or you can copy the .mdb to the Job Server directory and make the reguired changes to it there. For more information about the changes required to fax purchase orders from your Job Server workstation, see Producing Output for Purchase Orders in the SmartStream *Financials Technical Reference*.

Adding Job Server Programs Between Releases

If you add SmartStream products to your environment between releases, you must reinstall Job Server programs.

Use the following procedure to reinstall Job Server:

Step	Action
1	Run the File Server Setup program to install additional SmartStream products, SmartStream language kits, or both.
2	Run the Database Server Setup program to install additional SmartStream products, SmartStream language kits, or both.
3	Stop the Master Scheduler, polls, and ARPC Master Server.
4	Run the SmartStream Job Server program to reinstall the Job Scheduler programs and add the new Job Server programs.
5	Reconfigure the polls.

12 Installing SmartStream Connect

Chapter Contents

12-1 Before You Begin
12-2 Establishing a Connection
12-3 About the SmartStream Connect Setup Program
12-4 Installing SmartStream Connect in a UNIX Environment
12-6 Installing SmartStream Connect in a Windows Environment
12-7 Troubleshooting

Before You Begin

Before installing SmartStream Connect, complete the tasks in the following chapters:

- Chapter 2, Preparing the Environment
- Chapter 3, Preparing and Installing the File Server
- Chapter 11, Installing Job Server

Worksheets

Installation worksheets are provided to help you plan your installation. See Appendix B for the appropriate worksheets.

Establishing a Connection

DBMS/ODBC Software

Sybase Open Client or Microsoft SQL Server Client software and Sybase ODBC drivers or Microsoft ODBC drivers must be installed on the job servers to provide a connection to the database servers.

For more information, see Chapter 2, Preparing the Environment.

UNIX Connectivity

The Connect Setup program uses the rexec protocol to execute commands and transfer files.

About the SmartStream Connect Setup Program

SmartStream Connect is an optional product. It is not available for installation unless your enterprise has licensed it.

The SmartStream Connect Setup program installs the following programs on the Windows or UNIX server:

- SmartStream Connect Download program
- SmartStream Connect Insert program
- Other SmartStream Connect programs

Installing SmartStream Connect in a UNIX Environment

This section describes how to install SmartStream Connect in a UNIX environment.

Prerequisite Tasks

- ☐ Ensure that the Microsoft Windows workstation used for this installation has a Windows Sockets 1.1-compliant Windows Sockets API implementation .dll file (winsock.dll).
- ☐ Ensure you have a valid UNIX user ID for the location where you are installing SmartStream Connect.

Setup Options

Environment to Install

Choose a location where SmartStream is installed and the environment where you want to install Connect.

UNIX Host Name

The name of the UNIX server where you are installing Connect.

Logon User ID

Up to 30 alphanumeric characters.

The logon ID for the server you are installing Connect on.

Password

Up to 30 alphanumeric characters.

The password for the user ID. This field is encrypted. The password is case sensitive.

Running the Setup Program

Run the setup.exe program from the directory that represents your environment:

- drive:\directory**connect\hp**
- drive:\directory**connect\sun**
- drive:\directory**connect\aix**

Where *drive:**directory*\ is the location where SmartStream is installed on the file server.

Results of Running the Setup Program

The Setup program

- Installs SmartStream Connect to the directory you specify
- Configures the dbsched.ini file using the information you entered during the setup process.

Post-Installation Task

☐ If you install SmartStream in the Sybase Adaptive Server Enterprise Server environment, use this procedure to ensure that the user ID for SmartStream Connect connects to the database server:

Step	Action
1	Change the path in the profile of the home directory with the location of the database server programs. Example: **path=/users/sybase/bin**
2	Type the following environment variables in the profile: SYBASE=**/users/sybase** MAIL=**/users/mail**
3	Type the following command: **isql -UDBS -P***password* **-S***servername* **Result:** If you connect to the database server, the following prompt is displayed: 1>
4	Type **exit**.

Installing SmartStream Connect in a Windows Environment

This section describes installing SmartStream Connect on a Windows server.

Setup Option

Environment to Install Choose a location where Job Server is installed and where you want to install Connect.

Running the Setup Program

Use the Windows server to run the setup.exe program located in the following directory:

*drive:**directory***connect\ntintel**

where *drive:**directory* is the directory where SmartStream is installed on the file server.

Testing the Connection to the Database Server

- ☐ Use a system administrator's utility to ensure that the user ID for the SmartStream Connect server connects to the database server.

Troubleshooting

The Connect installation program simply copies the contents of the **\Connect***operating system*\ directory on the SmartStream file server to the directory where Job Server was installed. If you have any difficulty running the program, you can easily copy the files yourself.

Location of the Job Server

The installation program examines settings in the env.ini file to determine where Job Server was installed. If no instances of Job Server using the same operating system as the programs in the Connect directory were installed, an error message is displayed, and you cannot continue installing Connect.

Windows Environment

If you are installing the Windows version, you must run the installation program from the machine where Job Server was installed. If you have installed Job Server in more than one directory on the current machine, select the Job Server instance where you want Connect installed.

UNIX Environment

If you are installing the UNIX version and you have installed more than one Job Server for the selected operating system, select the Job Server instance where you want Connect installed.

The Connect installation program uses the same connectivity software that the Job Server installation program does.

13 Copying SmartStream Library PDF Files

Chapter Contents

13-1 About the SmartStream Library
13-2 Using the SmartStream Library .pdf Files
13-4 Using the SmartStream Library Through the Web

About the SmartStream Library

SmartStream product documentation in .pdf file format is delivered on the SmartStream Library compact disc.

You can also access the SmartStream Library using a Web browser.

SmartStream Library

The SmartStream Library provides the following types of information:

- Product information, including
  - Product concepts and features
  - Implementation planning
  - Policy setup and administration
- Technical information, including
  - Database administration
  - Security, user, and workgroup management
  - Workflow management
  - Job Scheduler administration

For detailed field, window, and procedural information, see the online Help for your SmartStream product.

Using the SmartStream Library .pdf Files

You can access the SmartStream Library .pdf files from the SmartStream Library compact disc, or you can copy them to your file server or the client workstations.

Prerequisite Tasks

If you choose to copy the SmartStream Library .pdf files, complete the following prerequisite tasks

- ☐ For optimum performance, attach the CD-ROM player to the installation workstation rather than use a remote connection.
- ☐ Insert the SmartStream Library compact disc in the CD-ROM player.

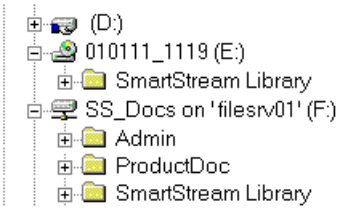
Copying the SmartStream Library .pdf Files

You can find the SmartStream Library .pdf files in the top-level directory of the SmartStream Library compact disc:

CD-ROM drive:\SmartStream Library

Where *CD-ROM drive:*\ is the location where the *SmartStream Library* compact disc is inserted.

Copy the **entire** directory structure to the file server or the client workstations in the **same relative position** as it appears on the SmartStream Library compact disc. For example, you decide to copy the SmartStream Library .pdf files to drive F on your network. Because they are in a top-level directory on the compact disc, you copy the .pdf files to a top-level directory on drive F (**F:\SmartStream Library**).



Viewing the SmartStream Library .pdf Files

To view the SmartStream Library .pdf files, you must have Adobe® Acrobat® Reader®, version 3.0 or later, installed.

An executable for installing the reader is included on the SmartStream Library compact disc in the **000_Adobe_Acrobat_Reader** directory. Instructions for using the reader are included in the read me file (**00_readme\CDReadme.txt**) on the compact disc. You can also download the latest reader from the Adobe Web site.

After the reader is installed, double-click any .pdf file to open it in the reader where you can view and print it.

Using the SmartStream Library Through the Web

SmartStream product documentation is also available through AnswerLink (answerlink.geac.com), the Geac Web support tool.

Use DocLink, the documentation tool in AnswerLink, to access the latest version of the SmartStream documentation.

Open the SmartStream Library in DocLink using one of the following methods:

If you are accessing the SmartStream Library through...	Then...
SmartStream	Choose **SmartStream Library** from the SmartStream Help menu.
AnswerLink	Open and log on to AnswerLink. Then click DocLink on the AnswerLink toolbar.

To log on to AnswerLink, you must enter the user ID and password assigned to you. If you do not have an AnswerLink user ID and password, contact SmartStream Customer Support.

Error Messages

When users click SmartStream Library on the Help menu in SmartStream or click a link from the online Help to the documentation on DocLink and do **not** have AnswerLink login information or the required software, they receive one of the following messages:

Situation	Message	Response
User has a Web browser but does not have an AnswerLink user ID and password	HTTP Error 401 401.4 Unauthorized: Authorization failed by filter This error indicates that the Web server has a filter program installed to verify users connecting to the server. The authentication used to connect to the server was denied access by the filter program. Please make a note of the entire address you were trying to access and then contact the Web server's administrator to verify that you have permission to access the requested resource.	Close the Web browser and contact SmartStream Customer Support to request an AnswerLink ID and password.

Situation	Message	Response
User does not have a Web browser	Windows cannot find iexplore.exe. This program is needed for copying files of the type 'URL:HyperText Transfer Protocol'. After the user clicks Cancel, this message is displayed: Unable to open book. The anchor is possibly missing. Contact Geac Customer Support.	Click OK. Use the SmartStream Library .pdf files from the SmartStream Library compact disc or from the location where they were copied.

SmartStream Library Client Utilities

The client utilities for using the SmartStream Library through the Web provide active links between documentation and Help files.

These utilities are automatically installed when you install SmartStream on the file server, then on the client workstation.

14 After Completing the Setup Process

Chapter Contents

14-1 Verifying the Installation of SmartStream
14-3 SmartStream
14-8 SmartStream Shared Components
14-9 Allocations
14-10 Asset Management
14-11 Billing
14-12 Budget
14-14 Consolidations
14-15 Funds Control
14-16 Human Resources
14-17 Ledger
14-18 Payables
14-20 Projects
14-21 Purchasing
14-22 Receivables
14-23 Receiving
14-24 Supplies Management
14-26 Before Going into Production
14-28 Implementing SmartStream

Verifying the Installation of SmartStream

This chapter describes the tasks you complete to verify the SmartStream client workstations have connectivity and are functional. For additional information about the tasks listed in this section and the activities you use to complete them, see the online Help.

Prerequisite

Before you perform the tasks in this chapter, you must install SmartStream as described in this guide. Use either education data or your own data to perform these tasks.

The DBMS configuration parameters used during installation are minimums set for installation only. You might need to change the configuration for testing activities and running SmartStream functions.

Sequence of Tasks

You must verify the installation for the SmartStream platform before verifying the installation for the SmartStream products. This includes setting up the poll configuration necessary for Job Server. The classes established for the Poll program are used for the SmartStream product installation verification.

Perform the tasks in the following order:

1. SmartStream
2. SmartStream Shared Components, if installed
3. Ledger, if installed

The post-installation tasks for the remaining products can be performed in any order.

SmartStream

- ☐ Start and log on to SmartStream and SmartStream Mail.
- ☐ Ensure that the SmartStream Browser displays the drawers that you can access. If you use predefined data, find the Home Drawer for DBS.
- ☐ Compose a mail note and send it to a recipient.
- ☐ Use the New Browser Objects activity to set up an agent rule list.
- ☐ Select the Agent icon to run the agent.

Query and Reporter

Use the Query activity and Reporter activity to complete the following tasks:

- ☐ Choose Query to test the connection to the server.
- ☐ Choose Add Tables to test the connection to the server.
- ☐ Define a structured query that extracts data from a table.
- ☐ Choose Run to process the query you have just defined.
- ☐ Choose Report to specify a report.
- ☐ Choose the Report icon to run the report.
- ☐ View the report; return to the Query&Reporter window.

Analyzer

Use the Analyzer activity to complete the following tasks:

- ☐ Set up an analyzer specification.
- ☐ Run the analyzer specification.

Open Analyzer

- ☐ Add a Cognos Impromptu catalog.
- ☐ Add a Cognos Impromptu report and query.
- ☐ Add and run an Open Analyzer definition.

Structures

- ☐ Use the Structures activity to open a previously added structure.

Job Server

- ☐ Use the Master Scheduler Configuration activity to define the Job Scheduler configuration.
- ☐ Use the Poll Configuration activity to define the configuration for the Poll.
- ☐ Use the Security Profile activity to define a security profile for the Job Scheduler.
- ☐ Run the Configuration program (pscc0030) from the directory where you installed Job Server to validate the information in the dbsched.ini file.
- ☐ On the Start menu, open the SmartStream Job Server 6.5 program group and click SmartStream Job Server Configuration.
- ☐ Start the Poll programs using the pscpoll.beg script for UNIX operating systems or by starting the service on Windows operating systems.
- ☐ Use the Job Scheduler activity to schedule a job.
- ☐ Use the View Server Queue activity and the Scheduler Log activity to examine the job you scheduled with Job Scheduler.
- ☐ Verify that you received the Job Results document in your mail after the job completed.

SmartStream Connect

- ☐ Verify the connection between the SmartStream Connect server and the host.

- ☐ Ensure that you have a SmartStream Connect activity list or Job Scheduler activity list containing the following activities: SmartStream Connect Download Request, SmartStream Connect Insert Request, SmartStream Connect Stored Procedure Request, SmartStream Connect Transaction Upload Request, or SmartStream Connect Host Job Submission Request.
- ☐ Use the Poll Configuration activity to validate that the proper communication settings are entered.
- ☐ Use the SmartStream Connect Download Request activity to create a request to download data from the host.
- ☐ Use the SmartStream Connect Insert Request activity to create a request that inserts data downloaded from the host into a database on the server.
- ☐ Use the SmartStream Connect Stored Procedure Request activity to create a request that extracts data from the database on the server.
- ☐ Use the SmartStream Connect Transaction Upload Request activity to create a SmartStream Connect Transaction upload request.
- ☐ Use the SmartStream Connect Host Job Submission Request activity to submit a job to the host that prints the uploaded data.
- ☐ Use the Security Profile activity to modify a security profile to include host-specific information.
- ☐ Use the Job Scheduler activity to create a job and schedule it to run.
- ☐ Examine the results of the job in the SmartStream Mail InBox.
- ☐ Examine the output from the host job submission.

Management Reporter

These tasks set up and verify the installation of Reporting Policy Controls, Formulas, and Management Reporter.

- ☐ Ensure that your activity list contains the following activities: Formulas, Management Reporter, Reporting Policy Controls.

Reporting Policy Controls Setup and Verification

☐ Use the Reporting Policy Controls activity to define and edit the following financial data for your enterprise:

Choose the Ledger Balance Table policy control to define the name of your Ledger Balance table.

Optionally, add additional Ledger Balance tables to the Balance Table Catalog on Sybase from which you can redefine your Ledger Balance table at any time.

Verify that the list of available balance tables in the Balance Table Catalog is successfully established.

Choose the Amount Classes policy control to define the amount class types for your enterprise.

Use the Management Reporter Main activity to verify that the amount class types you defined on the Edit Amount Classes window in Reporting Policy Controls are displayed.

Use the Currency policy control to identify the currency codes and descriptions based on your need to produce reports using single or multiple currencies. If you are a multiple currency user, specify the currency codes and descriptions that you want to display on your reports. If you are a single-currency user, use this activity to define your local currency.

Use the Entity Controls policy control to define valid ledger entities (for example, entities such as companies or corporations) for your enterprise.

Use the Ledger Key Layout policy control to provide meaningful names for the ledger entity ID and elements of the user-defined accounting key.

Creating Formulas Using the Formula Application

☐ Use the Formulas activity to create formulas that can be used later within SmartStream Financials applications.

Setting Up and Verifying Data

The following tasks apply to Management Reporter and Decision Support Services (DSS) customers only.

If you are a Ledger customer: you must establish a SmartStream user ID that does not have access to any SmartStream Financials activities, and you must perform the tasks for Reporting Policy Controls.

- ☐ Set up the following information:
  - Formulas that allow you to define the amounts used in your report
  - Column groups that define the columns and column headings of your report
  - Rows that define or identify the data in your source Ledger Balance table that is extracted to build your report
- ☐ Use the Report Specification activity to create the report specification.
- ☐ Use the Run Parameters activity to verify the availability of the report.

SmartStream Shared Components

- ☐ Start and log on to SmartStream.
- ☐ Use the New Browser Objects dialog box to set up activity lists to organize the information you intend to test. Ensure that you select the following Common activities if you have installed any SmartStream products: Enterprise Policy, Periodic Calendar Year, Rate Entry By Transaction Currency, Rate Delete Request Maintenance, Vendor Location.
- ☐ Use the Security Profile activity to define a security profile for a user.
- ☐ Use the Bank activity to
  - Open an existing bank
  - Display Help
  - Add a bank.
- ☐ Use the Rate Entry by Transaction Currency activity to
  - Add a rate
  - Display Help.
- ☐ Use the Rate Delete Request Maintenance activity to add a rate deletion request for the rate just entered.
- ☐ Use the Job Scheduler activity to start a scheduled rate deletion.
- ☐ Use the View Server Queue activity to track a scheduled rate deletion.
- ☐ Use the Scheduler Log activity to display the log for a scheduled rate deletion.
- ☐ Use the Enterprise Policy activity to
  - Display the General View
  - Display Help.
- ☐ Use the Periodic Calendar Year activity to
  - Add a calendar year
  - Display Help.
- ☐ Use the Vendor Location activity to
  - Open an existing vendor location
  - Display Help.
- ☐ Use the Vendor Reporting activity to create a vendor list report.

Allocations

These tasks verify the installation of the following activities: Allocation Cycle Definition, Allocation Distribution Definition, Allocation Pool Definition, Allocation Request, Allocation Setup.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Allocation Pool Definition activity to
  - Select accounts for the allocation source pool
  - Display Help.
- ☐ Use the Allocation Distribution Definition activity to specify the accounting keys and amounts to distribute across the enterprise.
- ☐ Use the Allocation Cycle activity to specify how to build an allocation.
- ☐ Use the Allocation Request activity to add an allocation request.
- ☐ Use the Job Scheduler activity to run a scheduled allocation job.
- ☐ Use the View Server Queue activity to track the progress of the scheduled allocation job.
- ☐ Use the Scheduler Log activity to display the log for the scheduled allocation job.

Asset Management

These tasks verify the installation of the following activities: Assets, Asset Management Reporting, Asset Period Depreciation Controller.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Assets activity to
  - Open an existing asset
  - Display field and Help
  - Add an asset.
- ☐ Use the Asset Period Depreciation Controllers activity to add a set to group books for depreciation processing.
- ☐ Use the Job Scheduler activity to start a scheduled period depreciation job for an asset.
- ☐ Use the View Server Queue activity to track a scheduled period depreciation job.
- ☐ Use the Scheduler Log activity to display the log for a scheduled period depreciation job.
- ☐ Use the Asset Management Reporting activity to create an Expense Ledger report.

Billing

These tasks verify the installation of the following activities: Billing Defaults, Billing Customer Defaults, Billing Accounting Distributions, Billing Document Print.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Billing Defaults activity to
  - Open existing billing defaults
  - Display Help.
- ☐ Use the Billing Defaults activity to add billing defaults for a receivable entity.
- ☐ Use the Billing Customer Defaults activity to
  - Change existing billing customer defaults
  - Display Help.
- ☐ Use the Billing Customer Defaults activity to add billing customer defaults for a receivable account and receivable entity combination.
- ☐ Use the Billing Accounting Distributions activity to
  - Display accounting distributions
  - Display Help.
- ☐ Use the Job Scheduler activity to start a scheduled billing document load job.
- ☐ Use the View Server Queue activity to track a scheduled billing document load job.
- ☐ Use the Scheduler Log activity to display the log for a scheduled billing document load job.
- ☐ Use the Billing Document Print activity to
  - Produce a draft version of a billing document
  - Display Help.

Budget

These tasks verify the installation of the following activities: Budget Entity Policy, Budget Entity Amount Class Types, Budget Validation Policy, Budget Chart of Accounts, Budget Balance, Budget Workbench Import Request, Budget Maintenance Request, Budget Workbench.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Budget Entity Policy activity to
  - Open an existing entity
  - Display Help.
- ☐ Use Budget Entity Amount Class Types activity to
  - Change an amount class type for a budget entity
  - Display Help.
- ☐ Use the Budget Validation Policy activity to
  - Access Validation
  - Display Help.
- ☐ Use the Budget Chart of Accounts activity to
  - Access an existing account
  - Display Help
  - Add user dates and amounts.
- ☐ Use the Budget Balance activity to
  - Access an existing balance
  - Display Help
  - Add a new balance.
- ☐ Use the Budget Workbench Import Request activity to
  - Add an import request
  - Display Help.

- ☐ Use the Budget Maintenance Request activity to
  - Open an existing request
  - Display Help
  - Add a new request.
- ☐ Use the Workbench Data Access activity to
  - Import data to the workbench
  - Display Help.
- ☐ Use the Workbench Solo Change activity to
  - Display the variances between periods for two amount classes
  - Attach a note to your budget data
  - Display Help.
- ☐ Use the Workbench Group Change activity to
  - Spread amounts evenly across periods
  - Delete a note
  - Display Help.

Consolidations

These tasks verify the installation of the following activities: Consolidation Map, Consolidation Policy, Consolidation Chart of Account, Consolidation Journal Entry, Consolidation Trial Balance, Consolidation Elimination Request, Consolidation Request.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Consolidation Map activity to open a structure and view a consolidation structure.
- ☐ Use the Consolidation Policy activity to select the Date view and change the Prior Year value.
- ☐ Use the Consolidation COA activity to
  - Access an existing account
  - Display Help
  - Change the account description.
- ☐ Use the Consolidation Journal Entry activity to add and post a journal.
- ☐ Use the Consolidation Trial Balance activity to
  - Retrieve balances for an existing entity
  - Filter the balance rows by account type
  - Replace a balance amount for one record.
- ☐ Use the Consolidation Elimination Request activity to
  - Access an existing Request
  - Run the Elimination program from the window.
- ☐ Use the Consolidation Request activity to
  - Access an existing Request
  - Run the Consolidation program from the window.

Funds Control

These tasks verify the installation of the following activities: Funds Control Policy, Funds Control Account Maintenance, Funds Control Structure Definition, Funds Control Reporting, Fund Control Workbench.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Funds Control Policy activity to
  - Open an existing Funds Control Policy
  - Add a new Funds Control Policy
  - Display Help.
- ☐ Use the Funds Control Account Maintenance activity to
  - Open an existing Fund Account
  - Add a Fund Account
  - Display Help.
- ☐ Use the Funds Control Structure Definition activity to
  - Open an existing Structure Definition
  - Add a new Structure Definition.
- ☐ Use the Job Scheduler activity to start a scheduled Funds Control Rollup Structure Explosion.
- ☐ Use the View Server Queue activity to track the Funds Control Rollup Structure Explosion.
- ☐ Use the Scheduler Log activity to display the log for a scheduled Funds Control Rollup Structure Explosion.
- ☐ Use the Funds Control Reporting activity to
  - Run a Funds Control Distribution report
  - Display Reporting Help.
- ☐ Use the Funds Control Workbench activity to
  - View the Funds Control Rollup Structure
  - View the Funds Control Balances
  - View the Funds Control Exceptions.

Human Resources

These tasks verify the installation of the following activities: Employer, Employee Hire, Application, Employee Assignment, Employee Payment History, Participant Workbench.

- ☐ Ensure the user ID you use to perform the verification is part of the DBSSecurity group.
- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Employer activity to
  - View employer information for any employer
  - Display Help.
- ☐ Use the Employee Hire activity to add an employee.
- ☐ Use the Application activity to create and hire an applicant.
- ☐ Use the Employer Assignment activity to
  - View employee assignment information
  - Verify connection to SmartStream Structures.
- ☐ If Payroll is licensed, use the Employee Payment History activity to
  - View an employee's payment history
  - Display Help.
- ☐ If Benefits is licensed, use the Participant Workbench activity to
  - Add a participant to a plan without an eligibility rule
  - Add a plan option to that participant
  - Display Help.
- ☐ Copy the hrstream.mdb file from the file server to the **c:\sstrm65** directory.
- ☐ Attach the Human Resources application tables in Microsoft Access.
- ☐ Run a sample EEO-1 report for Single Establishment 0714.

Ledger

These tasks verify the installation of the following activities: Chart of Accounts, Unposted Journals, Ledger Post Request, Ledger/Journal/Currency Reporting.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Chart of Accounts activity to
  - Open an existing account
  - Display Help
  - Add an accounting key
- ☐ Use the Unposted Journals activity to
  - Open an existing unposted journal
  - Display Help
  - Add an unposted journal
- ☐ Use the Ledger Post Request activity to add a posting request.
- ☐ Use the Job Scheduler activity to start a scheduled posting job.
- ☐ Use the View Server Queue activity to track a scheduled posting job.
- ☐ Use the Scheduler Log activity to display the log for a scheduled posting job.
- ☐ Use the Ledger/Journal/Currency Reporting activity to produce a Posted Journal Detail Report.

Before you access the subledgers, the security administrator must define security for the Subledger Documents activity.

- ☐ Use Activity Security activity to assign the Subledger Documents (fgl9000) activity.
- ☐ Use the Security Data Control activity to select the Control Type for Ledger Account Control and set up data control security for the Subledger Documents activity.

Payables

These tasks verify the installation of the following activities: Payment Method, Available Payment Reference Numbers, Vendor Master, Vendor Payables Information, Invoice, Matching Exception Details, Payment Control, Payment Link to Access, Bank Clearance, Payables Balancing Report Parameters.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Payment Method activity to
  - Add a payment method
  - Display Help.
- ☐ Use the Available Payment Reference Number activity to
  - Add payment reference numbers
  - Display Help.
- ☐ Use the Vendor Master activity to
  - Add a vendor
  - Display Help.
- ☐ Use the Vendor Payables Information activity to
  - Change a vendor
  - Display Help.
- ☐ Use the Invoice activity to add an invoice with comments.
- ☐ Use the Invoice activity to add a matched invoice.
- ☐ Use the Job Scheduler activity to start a scheduled matching process.
- ☐ Use the Matching Exception Details activity to
  - Review a matching exception
  - Display Help.
- ☐ Use the Payment Control activity to
  - Set up a payment control
  - Display Help.
- ☐ Use the Job Scheduler activity to start a scheduled payment run.

- ☐ Use the View Server Queue activity to track the scheduled payment process.
- ☐ Use the Scheduler Log activity to display the log for a scheduler payment run.
- ☐ Use the To Do Lists folder on the SmartStream desktop to access a To Do to print a payment.
- ☐ Use the Bank Clearance activity to
  - Clear a payment
  - Display Help.
- ☐ Use the Payables Balancing Reports activity to create a summary balancing report for Payables.

Projects

Perform the following tasks using the delivered education data to test the installation of Projects.

These tasks verify the installation of the following activities: Projects, Structures, Component.

- ☐ Use the Projects activity to
  - Open an existing project
  - Display field-level help
  - Add a new project
  - Navigate to Structures.
- ☐ Use the Structures activity to add a summary and data point.
- ☐ Use the Component activity to open a file and select one of the new components.

Purchasing

Use the following site when you are testing Purchasing in an environment with Procurement only: US99. Do not test with any of the other delivered sites. You can also set up your own test sites.

These tasks verify the installation of the following activities: Requester, Buyer, Assign Commodities to Buyer, Requisition, Purchase Order, Select Purchase Order to Send, Purchasing Reports.

- ☐ Start and log on to SmartStream.
- ☐ Ensure these activities are included in an Activity List.
- ☐ Use the Requester activity to
  - Add a requester
  - Display Help.
- ☐ Use the Buyer activity to
  - Add a buyer
  - Display Help.
- ☐ Use the Assign Commodities to Buyer activity to
  - Assign a purchase commodity
  - Display Help.
- ☐ Use the Requisition activity to add a requisition.
- ☐ Use the Purchase Order activity to add a purchase order.
- ☐ Use the Select Purchase Order to Send activity to send a purchase order.
- ☐ Use the Security Profile activity to add a security profile.
- ☐ Use the Job Scheduler activity to
  - Create a scheduled purchase order send
  - Run a scheduled PO Extract.
- ☐ Use the Purchasing Reports activity to print a purchase order.

Receivables

These tasks verify the installation of the following activities: SmartStream Preferences, Credit Account, Receivable Account, Receivable Entity Accounting Distributions, Receivable Account Totals, Receivable Draft.

- ☐ Ensure these activities are included in an Activity List.
- ☐ Select Preferences from the File menu on the SmartStream window to verify Receivables preferences.
- ☐ Use the Credit Account activity to
  - Open an existing credit account
  - Display Help.
- ☐ Use the Credit Account activity to add a credit account.
- ☐ Use the Receivable Account activity to
  - Change a receivable account
  - Display Help.
- ☐ Use the Receivable Account activity to add a receivable account.
- ☐ Use the Receivable Entity Accounting Distributions activity to
  - Display accounting distributions
  - Display Help.
- ☐ Use the Job Scheduler activity to start a scheduled receivable aging job.
- ☐ Use the View Server Queue activity to track a scheduled receivable aging job.
- ☐ Use the Scheduler Log activity to display the log for a scheduled receivable aging job.
- ☐ Use the Receivable Account Totals activity to
  - Produce a report
  - Display Help.
- ☐ Use the Receivable Draft activity to open an existing receivable draft.

Receiving

After successfully completing the Purchasing post-installation tasks, use a purchase order that you created to complete the following tasks.

- ☐ Use the Receipt activity to receive the full order quantity and place some portion of that quantity in the quantity to disposition.
- ☐ Use the Receipt Maintenance activity to receive an additional unit for the receipt id added in the previous step.
- ☐ Use the Receipt Exceptions activity to disposition the quantity for the receipt id as Return to Vendor.
- ☐ Use the Next Step to the Returns activity and complete the return created in the previous step.
- ☐ Use the Receipt Inquiry activity to display the current details of the receipt.
- ☐ Use the Unidentified Receipt activity to add a receipt.
- ☐ Display Help.

Supplies Management

After completing the Purchasing installation test, perform the tasks in this section to verify the installation of Supplies Management.

- ☐ Use the Site activity to choose Site US99 as the purchase site and change it.
- ☐ Use the Next Available Number activity to set up the next available number for requisitions and kit orders.
- ☐ Use the Stockroom activity to add a new stockroom to Site US99.
- ☐ Use the Activity Security activity to add group security for the new stockroom in Site US99.
- ☐ Use the Item activity to add an item with a usage code of Stocked, and associate it with Site US99.
- ☐ Use the Stockroom Item activity to add the item to Site US99 in your new stockroom. Do not change the default for Replenished from Vendor. Add a minimum quantity of 1000 and a maximum quantity of 10,000.
- ☐ Use the Stockroom Bin Location activity to add a new bin in the new stockroom.
- ☐ Use the Item Bin Location activity to associate the new bin with the item you defined.
- ☐ Use the Inventory Adjustment activity to adjust the quantity in the bin for the item to 500.
- ☐ Use the Requisition activity to create an approved requisition for the stocked item.
- ☐ Use Job Scheduler to run the Batch Reservation activity for your site or stockroom.
- ☐ Use the Inventory Inquiry activity to observe the reserved quantity of the stocked item.
- ☐ Use the Requisition activity to go to the Line view and observe the reserved quantity of the requisition.
- ☐ Use the Print Picklist activity to print the picklist for the requisition added.
- ☐ Use Job Scheduler to run the Batch Replenishment activity, then run the Requisition Load scheduled process for the site or stockroom.

- Use the Replenishment Requisition activity to choose Open from the File menu to find the replenishment requisition for the item.

Before Going into Production

Perform the following tasks before going into production. Also, be sure to update your environment information on AnswerLink.

Adjusting Database Server Configurations for Testing and Production

The parameters you set during the installation process are adequate for installing SmartStream successfully. However, before starting testing and production, determine if these settings are adequate for your environment and increase the settings that are too low for your environment.

Running the budent32.exe Program for SmartStream Budget

Before SmartStream Budget users go into production, run the budent32.exe program. This program

- Customizes the budget.ini file
- Tailors the Workbench (budget.exe)
- Creates installation diskettes for users whose client workstations do not connect to the database server.

When to Run the budent32.exe Program

The system administrator runs the budent32.exe program at the following time:

- After SmartStream Budget is installed on the database server
- After Enterprise Policy is established
- After one SmartStream client workstation is installed with SmartStream Budget
- Before users install the Workbench on their workstation

Running the budent32.exe Program

Run the budent32.exe program in *drive:***ss\enterprz**, where *drive:*\ is the location where SmartStream is installed on your file server.

Clearing Tables

Before going into production, clear the education data from the SmartStream tables by running the table initialization program.

Have you installed SmartStream previously?	Run this program at this time…
Yes	During the migration process. See the SmartStream *Migration Guide*.
No	Before tailoring the accounting key and before going into production.

Tailoring the Accounting Key

After clearing the tables, tailor your accounting key by running the User-Defined Accounting Key program.

Have you installed SmartStream previously?	Run this program at this time…
Yes	During the migration process. See the SmartStream *Migration Guide*.
No	Before going into production.

For more information about planning and configuring your user-defined accounting key, see

- The Planning Your User-Defined Accounting Key chapter in the *Enterprise Accounting* guide
- The Configuring Your Accounting Key chapter in the *Shared Components Technical Reference*.

Verifying Depreciation Amounts in SmartStream Asset Management

Before going into production with Asset Management, you may want to load your assets onto a test server and process a few years using the following steps to verify that SmartStream calculates the depreciation amounts that you expect.

Step	Action
1	Run the depreciation scheduled process for the rest of the current year.
2	Run the year end scheduled process.
3	Run the depreciation scheduled process again for all periods in the new year.

This is especially advisable when your enterprise overrides some of the calculated amounts because overriding amounts can affect future calculations.

Implementing SmartStream

Each SmartStream product requires some post-installation setup. See the SmartStream Library for information about

- Technical implementation
- Maintenance considerations
- Policy set up
- Other product implementation considerations.

15 Road Map for Experienced SmartStream Installers

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About the Road Map

This road map is designed for SmartStream installers who have installed several new releases of SmartStream with few problems. They must be very familiar with the supported version of

- Microsoft SQL Server or Sybase Adaptive Server Enterprise
- Microsoft SQL Server Client or Sybase Open Client
- Windows workstation
- SmartStream products
- Windows or UNIX server
- Their mail software product.

The last column in the road map provides links to procedures with pictures of the corresponding installation windows. It also provides references to information to help you

- Make decisions about setting up SmartStream to meet the requirements of your business
- Resolve any problems you encounter.

Windows Environment

Use the following road map to install SmartStream in a Windows environment:

✓	Task Description	If you need more information, see...
☐	**Task 1 (Required)** Access the latest installation information on AnswerLink ▪ Download the appropriate planning document for SmartStream 6.5 DocLink/SmartStream/SmartStream 6.5/Planning Documents/Planning Document for... ▪ Download the Installation Guide for SmartStream 6.5 DocLink/SmartStream/SmartStream 6.5/Installation/Installation Guide ▪ Download the Migration or Upgrade in Place guide for SmartStream 6.5 DocLink/SmartStream/SmartStream 6.5/Installation/Migration Guide or Upgrade in Place for Sybase ▪ Visit the AnswerLink Bulletin Board under SmartStream/Release Information/*release number* and print these topics: – Critical Issues – Supported Technical Environments **Note:** Be sure to apply critical solutions before performing the corresponding task; for example, if a solution affects migration, apply it before you migrate your data.	*Installation Guide*, Chapter 2, Preparing the Environment

✓	Task Description	If you need more information, see...
☐	**Task 2 (Required)** Prepare your environment ▪ Prepare the installation workstation ▪ Install the new version of Sybase Adaptive Server or Microsoft SQL Server ▪ Install the new version of Sybase Open Client or Microsoft Client ▪ Install the new version of Sybase or Microsoft ODBC drivers ▪ For Microsoft SQL Server, install Microsoft Distributed Transaction Coordinator	*Installation Guide*, Chapter 2, Preparing the Environment
☐	**Task 3 (Required)** Run the File Server Setup program (copy files from CD or CD image to file server) ▪ Run *CD drive:*\DBS\InstMgr\Install\setup.exe ▪ Run *SmartStream Builder CD drive:*\strmbldr\InstMgr\Install\setup.exe	Setting Up the File Server. *Installation Guide*, Chapter 3, Preparing and Installing the File Server
☐	**Task 4 (Required only if you use Sybase Adaptive Server Enterprise as your database management system)** Prepare your Sybase database server ▪ Run *drive:**directory***utility\dbsprep.exe** to run the Database Preparation program that configures Sybase to work with SmartStream **Note:** The variables *drive:**directory* represent the location where SmartStream is installed on the file server.	Preparing the Sybase Database Server *Installation Guide*, Chapter 4, Preparing the Sybase Database Server
☐	**Task 5 (Required)** Run the Database Create and Load program (from newly created file server image) ▪ Run *drive:**directory*\CREATELD\setup.exe to create databases ▪ Run *drive:**directory*\CREATELD\setup.exe to load databases	Creating and Loading Databases. *Installation Guide*, Chapter 6, Installing SmartStream Products on the Database Server

✓	Task Description	If you need more information, see...
☐	**Task 6 (Complete only if you have licensed language kits)** Load SmartStream language kits	Loading SmartStream Language Kits *Installation Guide*, Chapter 6, Installing SmartStream Products on the Database Server
☐	**Task 7 (Complete only if you loaded education data and want to remove it)** Run the Table Initialization program ▪ Run dbms\setup.exe to clear tables and load minimum required data into them	Initializing Tables. *Installation Guide*, Before Going into Production in Chapter 13, After Completing the Setup Process
☐	**Task 8 (Required)** Install the SmartStream clients (from file server image) ▪ Uninstall previous version of SmartStream client ▪ Prepare the SmartStream Client workstation ▪ Install SmartStream client \ss\setup.exe /a ▪ Reboot the workstation ▪ If you tailor your accounting key, copy udak.ini from file server image to dbms\udak directory	Installing SmartStream Clients *Installation Guide*, Chapter 7, Preparing the SmartStream Client Workstations *Installation Guide*, Chapter 8, Installing SmartStream Products on the Client Workstations *Automated Client Reinstallation Guide*
☐	**Task 9 (Complete only if you tailor your accounting key)** Run udak.exe, compile utility setup.exe, and udakmgrt.exe to tailor your accounting key ▪ Run dbms\udak\udak.exe to tailor your accounting key (first run for All Products except newly licensed products and SmartStream Builder) ▪ Run dbms\udak\udak.exe (Second run for Consolidations **if currently licensed**) ▪ Run dbms\udak\udak.exe (Third run for **newly licensed products**) ▪ Run dbms\udak\udak.exe (fourth run for Consolidations **if newly licensed**) ▪ Run \dbms\udak\setup.exe to compile your accounting key ▪ Run dbms\udak\udakmigrt.exe to migrate your accounting key	Configuring Your User-Defined Accounting Key *Migration Guide or Upgrade in Place for Sybase*, Chapter 3, Tailoring Your Accounting Key For more information about planning and configuring your user-defined accounting key, see Planning Your User-Defined Accounting Key in the *Enterprise Accounting* guide Configuring Your Accounting Key in the *Shared Components Technical Reference*.

✓	Task Description	If you need more information, see...
☐	**Task 10 (Required)** Run the Migration Export and Import program to migrate your SmartStream data to the new release ▪ Run dbms\smartmig\setup.exe (First run for migration export) ▪ Run dbms\smartmig\setup.exe (Second run for migration import)	Running the Migration Program *Migration Guide* or *Upgrade in Place for Sybase*
☐	**Task 11 (Complete only if you are adding newly licensed products)** Reload databases for newly licensed products (no education data) ▪ Run CD Drive:\DBS\InstMgr\Install\setup.exe (Second run to reload databases for newly licensed products) **Note:** SmartStream Billing is a new product for SmartStream 6.5.02.	Reloading Databases for Newly Licensed Products *Installation Guide*, Chapter 6, Installing SmartStream Products on the Database Server
☐	**Task 12 (Complete only if you have licensed and installed language kits)** Reload your SmartStream language kits	Reloading SmartStream Language Kits *Migration Guide*, Chapter 6, Completing the Migration Process
☐	**Task 13 (Complete only if you tailor your accounting key)** Run udak.exe on architecture tables in Special mode ▪ Run dbms\udak\udak.exe (First run in Special Mode, Architecture Tables) ▪ Run dbms\udak\udak.exe (Second run in Special Mode, Architecture Tables for Consolidations)	Processing the Architecture Tables in Special Mode *Migration Guide or Upgrade in Place for Sybase*, Chapter 3, Tailoring Your Accounting Key
☐	**Task 14 (Complete only if you tailor your accounting key)** Regenerate the udak.pbl ▪ Using PowerBuilder, regenerate \ss\udak.pbl as udak.pdb	Regenerating the Dynamic Runtime Library *Migration Guide or Upgrade in Place for Sybase,* Chapter 3, Tailoring Your Accounting Key
☐	**Task 15 (Required)** Install Job Server ▪ Run \batch\NTINTEL for Microsoft SQL Server or Sybase	Installing the Job Server *Installation Guide*, Chapter 10, Installing Job Server

✓	Task Description	If you need more information, see...
☐	**Task 16 (Optional)** Install SmartStream Connect	Installing SmartStream Connect *Installation Guide*, Chapter 11, Installing SmartStream Connect
☐	**Task 17 (Required)** Install Mail Gateway ▪ Run setup.exe from dbms\mailgate	Installing the Mail Gateway *Installation Guide*, Chapter 9, Installing SmartStream Mail Gateway
☐	**Task 18 (Complete only if you are installing SmartStream Payroll)** Complete the ALLTAX and SQR setup ▪ Define user variables using the System utility from Control Panel – alltax2\taxdata\taxref\at001ref – alltax2\taxdata\taxsrc\at001clc – On UNIX machines, confirm environment variables are in .profile ▪ Add printer to local machine ▪ Run hralltax.bat from batch directory ▪ Define ODBC settings for Sybase and Microsoft SQL Server using the ODBC Data Source Administrator utility from Control Panel ▪ Initiate SQR setup from batch directory using this command: Batchdir>hpyrload DBS/password SERVERNAME ▪ Use a SQL editor to add printer names to the printer_id_tbl table in the DBShrpn database	Setting Up ALLTAX and SQR *Payroll Technical Reference* Chapter 1, Payroll Technical Implementation Chapter 8, Regulatory Reporting

✓	Task Description	If you need more information, see...
☐	**Task 19 (Required)** Configure Master Scheduler, Poll and ARPC ▪ Using SmartStream, configure Master Scheduler, Poll, and ARPC ▪ Create a shortcut on Windows machines on the desktop for Poll. Use the NOSERVICE option for Poll and start (**SmartStream Human Resources only**) ▪ On Windows, using the Services utility from within Administrative Tools utility in Control Panel – Change option on SmartStream Master Scheduler and ARPC to start automatically, and then start them – Change option on SmartStream Poll to Disable. Run with NOSERVICE option from the desktop (**SmartStream Human Resources only**)	Configuring Master Scheduler, Poll and ARPC *Installation Guide*, Chapter 10, Installing Job Server
☐	**Task 20 (Required)** Perform post-installation tasks appropriate to your SmartStream environment.	Performing Post-Installation Tasks *Installation Guide*, Chapter 13, After Completing the Setup Process

UNIX Environment

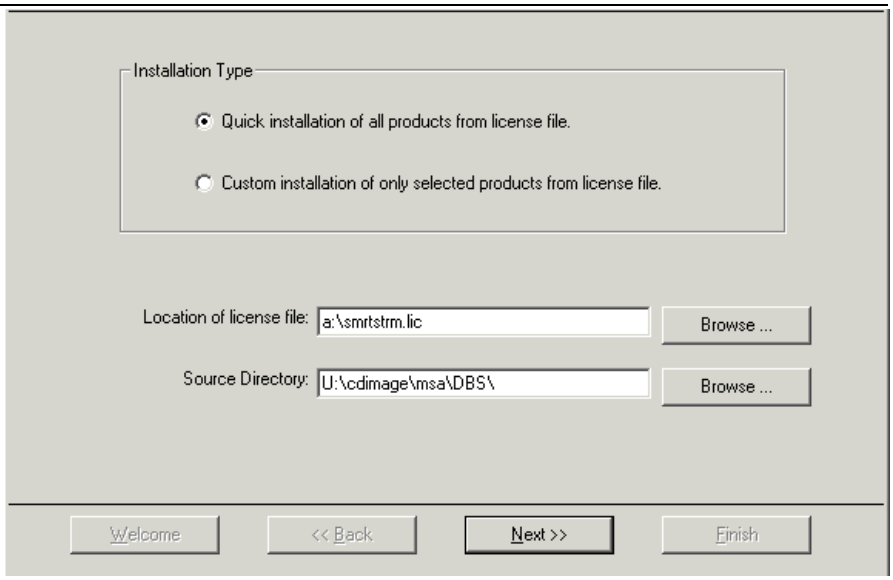
The order of the tasks for the UNIX environment is slightly different. Perform the tasks in the following order:

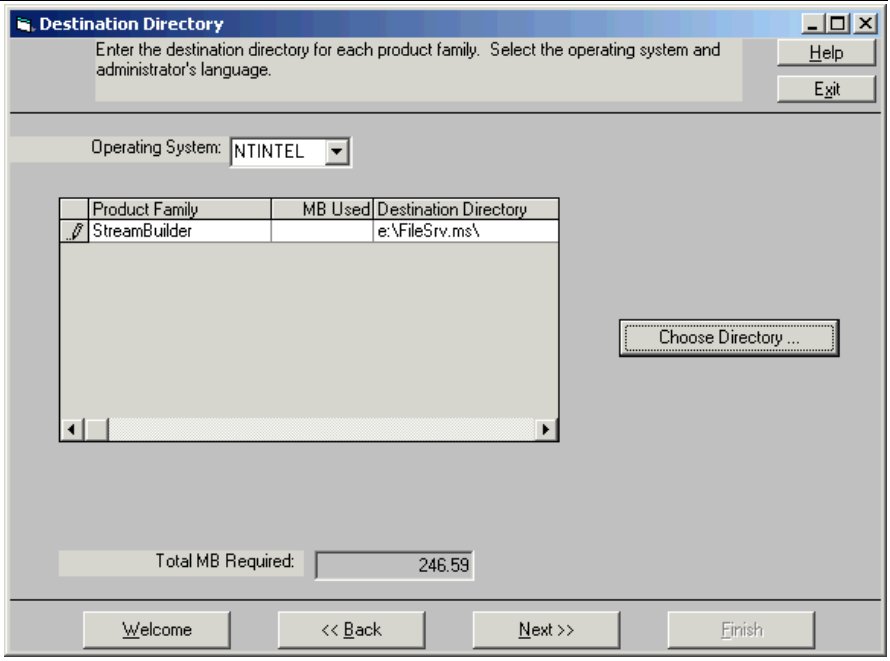
1. Tasks 1 through 8
2. Task 15: Run \batch\HP, AIX, or SUN
3. Tasks 9 through 14
4. Tasks 16 through 20

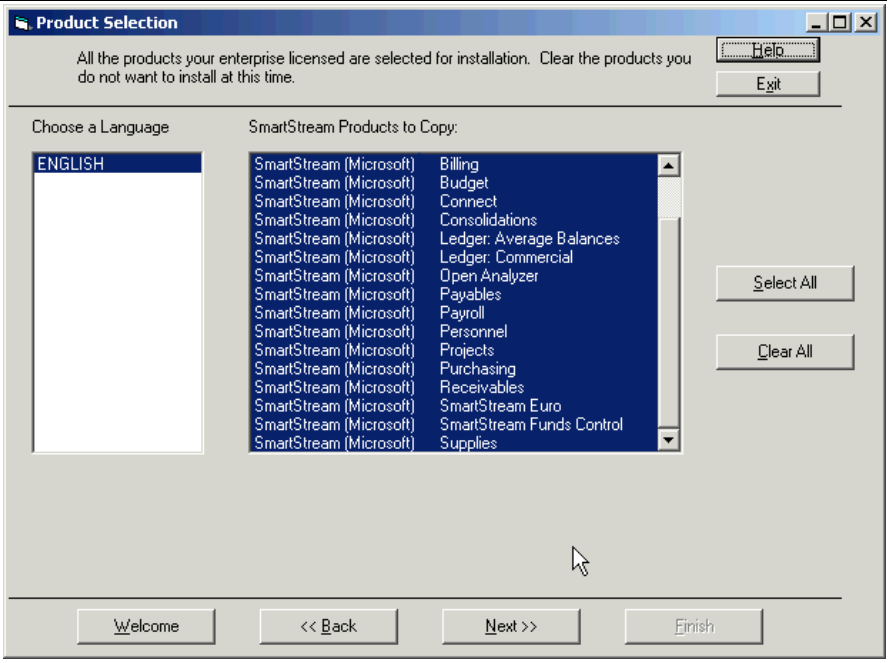
Setting Up the File Server

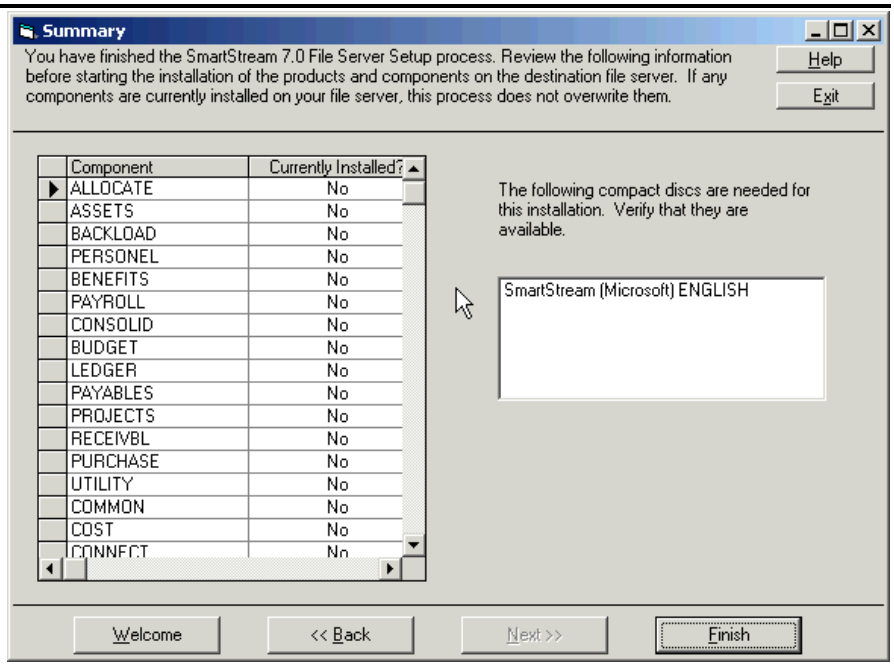
Run the SmartStream File Server Setup program for each of the following items, if licensed, in the order listed to install them on the file server:

- SmartStream products
- SmartStream Builder
- Language kits

Step	Action
1	Insert the compact disc in the CD drive and the license diskette in a disk drive.
2	Run **setup.exe** from the following directory on the CD ▪ For SmartStream and language kits, CD-ROM drive:\dbs\instmgr\install ▪ For SmartStream Builder, CD-ROM drive:\strmbldr\instmgr\install Where CD-ROM drive:\ is the location where the compact disc is inserted. **Result:** The File Server Setup window appears.
3	 Specify the location of the license file and source directory and click Next: **Note:** You must have a 6.5 license file to install SmartStream 6.5. License files from earlier SmartStream releases will not work.

Step	Action
4	 Select the operating system your job server will be running on from in the Operating System field and specify the destination directory. The destination directory is created if you have not added it yet. **Note:** NT batch programs are always installed in addition to whatever else is selected.

Step	Action
5	 Review the products selected for installation and clear the products you do not want to install. **Result:** The Summary window appears.

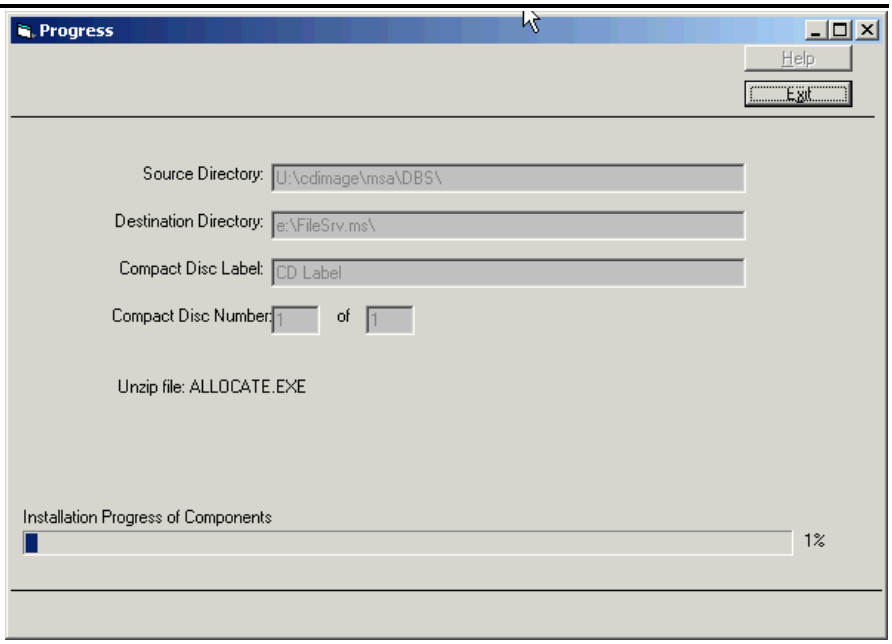
Step	Action
6	

Review the list of components to be installed.

To make changes, click **Back**.

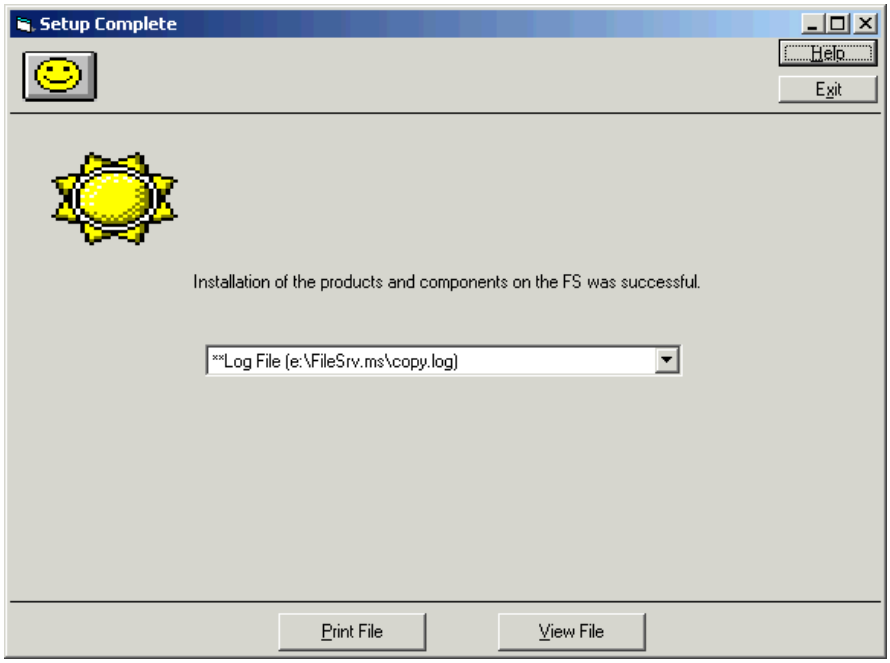
To begin installing products and components on the file server, click **Finish**.

Result: The Progress window appears.

Step	Action
7	 SmartStream products and components are being installed on the destination server. You must wait for this process to complete. **Result:** The Setup Complete window appears.

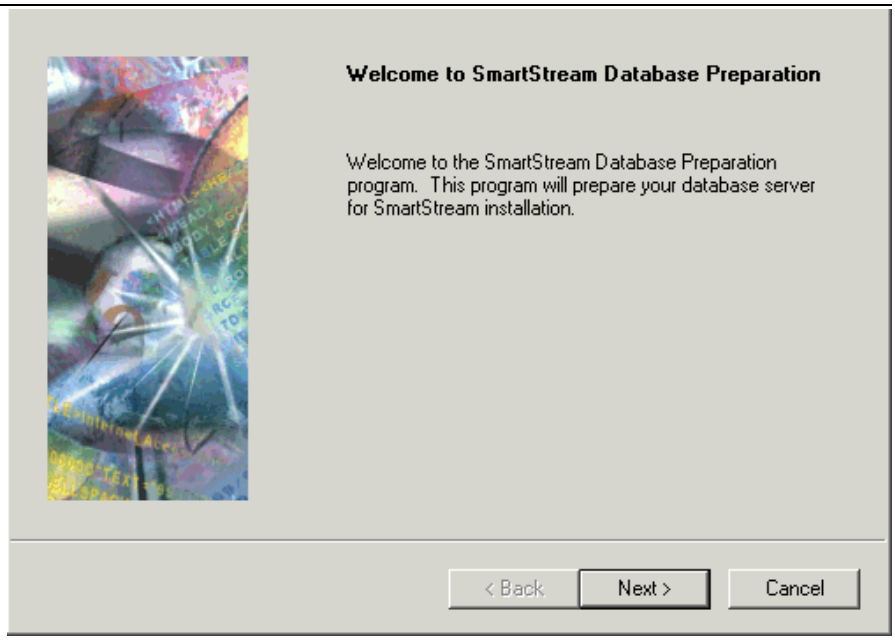
Step	Action
8	If a rain cloud appears, review the dbsinst.err.

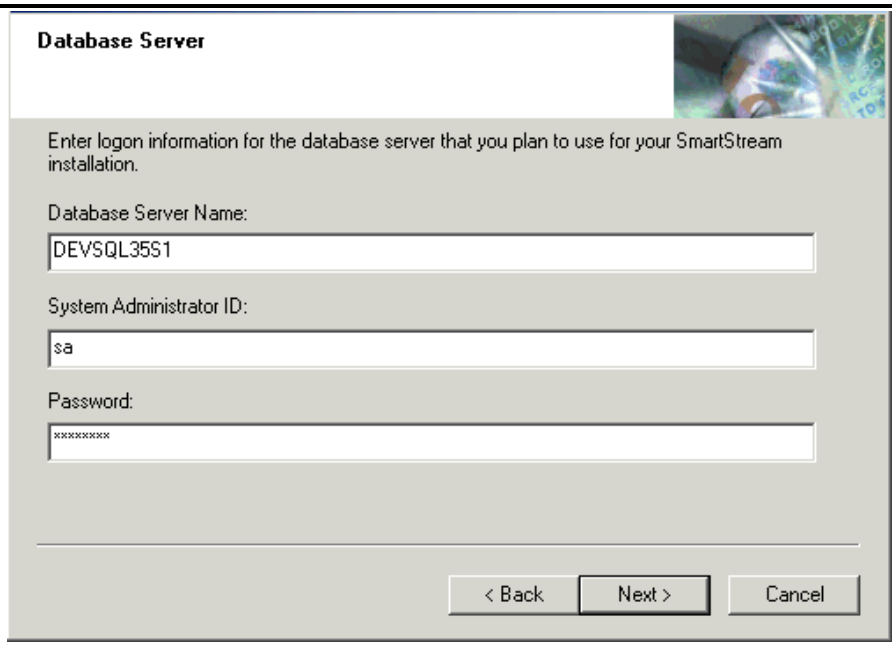
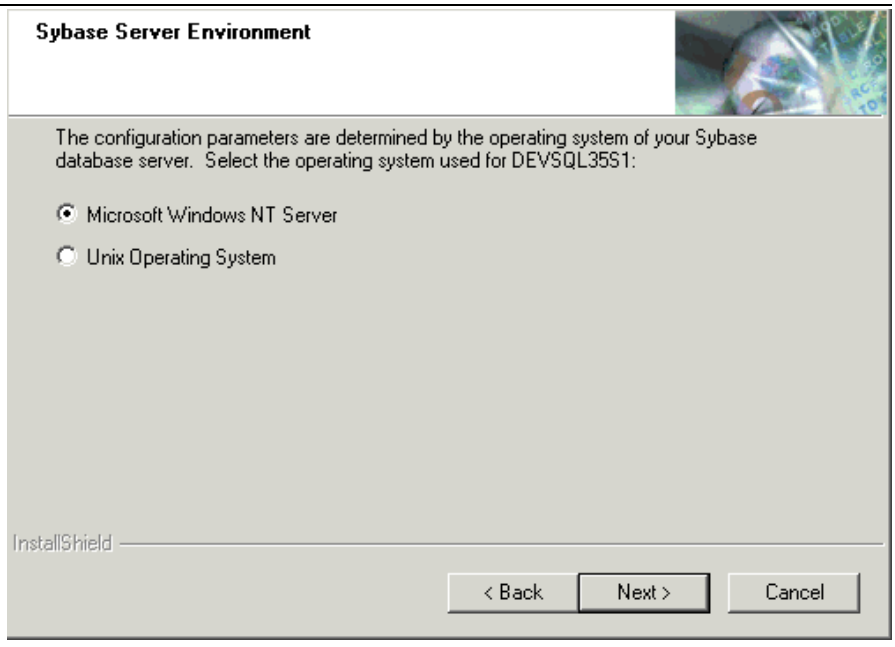
If a yellow sun appears, you can exit the setup program by clicking Yes on the File Server Setup Complete prompt.



Preparing the Sybase Database Server

Run the Database Preparation program (dbsprep.exe) to adjusts parameters for your Sybase database server if they are less than the minimum settings required to install SmartStream and SmartStream products.

Step	Action
1	Run the setup.exe program in the following directory: *drive:**directory***utility\dbsprep** where *drive:**directory* is the location where SmartStream is installed on the file server. **Result:** The SmartStream Database Preparation window appears.
2	 Click Next. **Result:** The Database Server window appears.

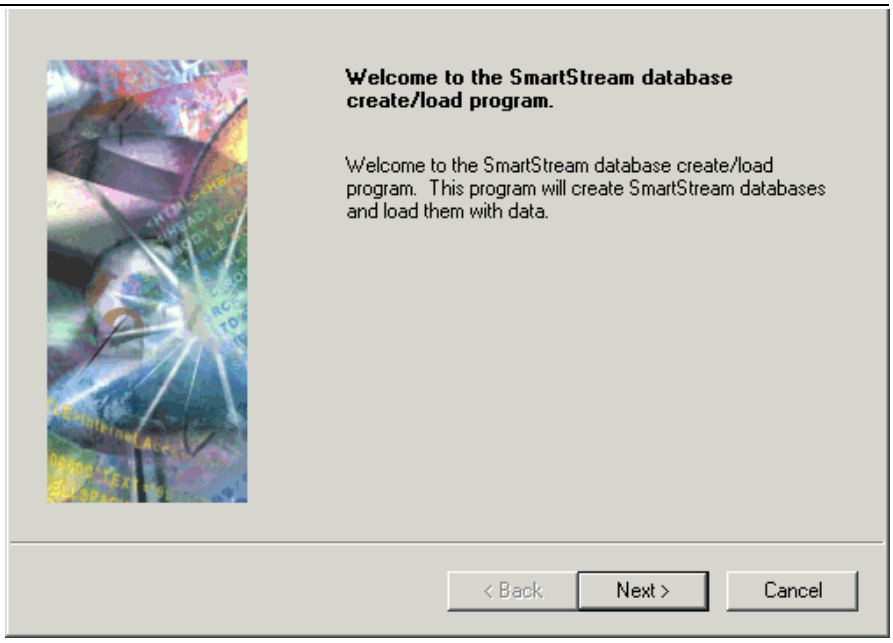
Step	Action
3	 Enter your logon information for the database server you are going to use for your SmartStream environment. **Result:** The Sybase Server Environment window appears
4	 Specify whether the database server is running on a Windows or UNIX platform.
5	Shut down and restart the database server when prompted to do so.
6	Click OK.

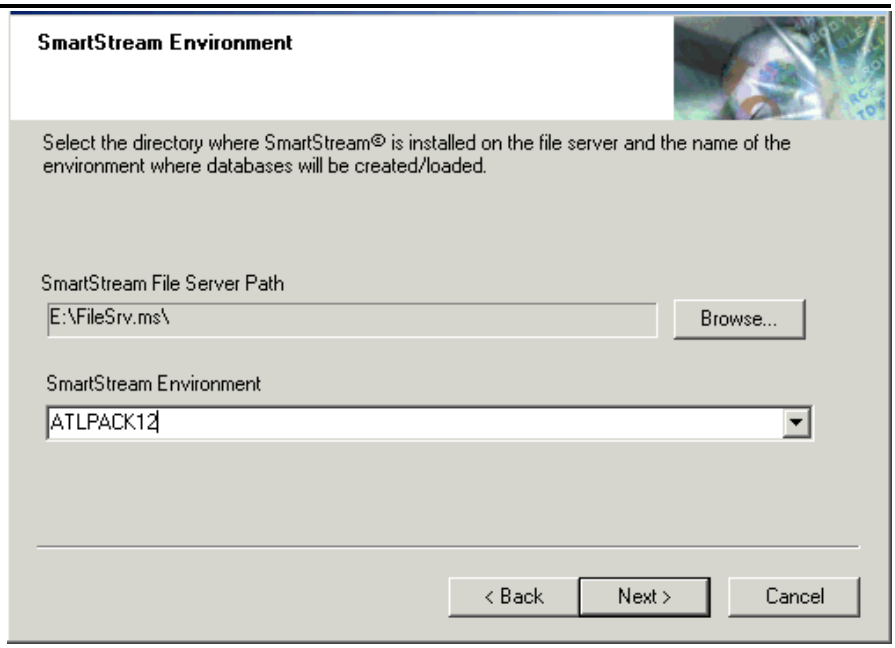
Step	Action
7	Click Finish when processing completes successfully.
8	Click Exit .

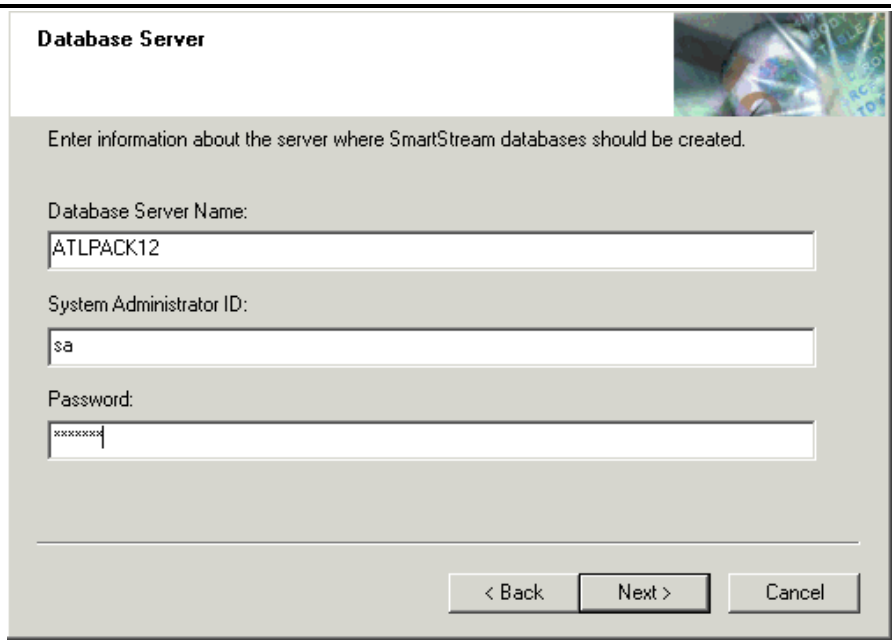
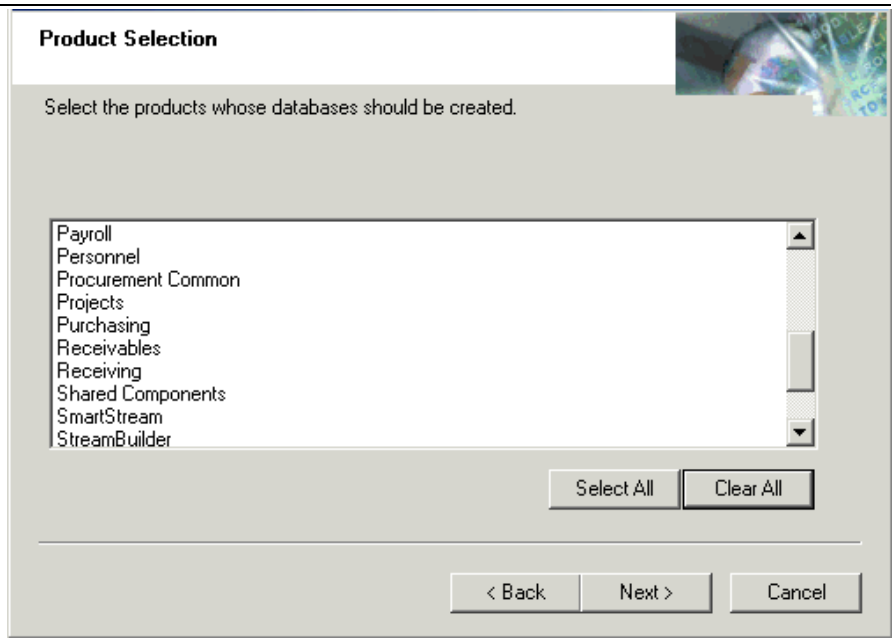
Creating and Loading Databases for SmartStream Products

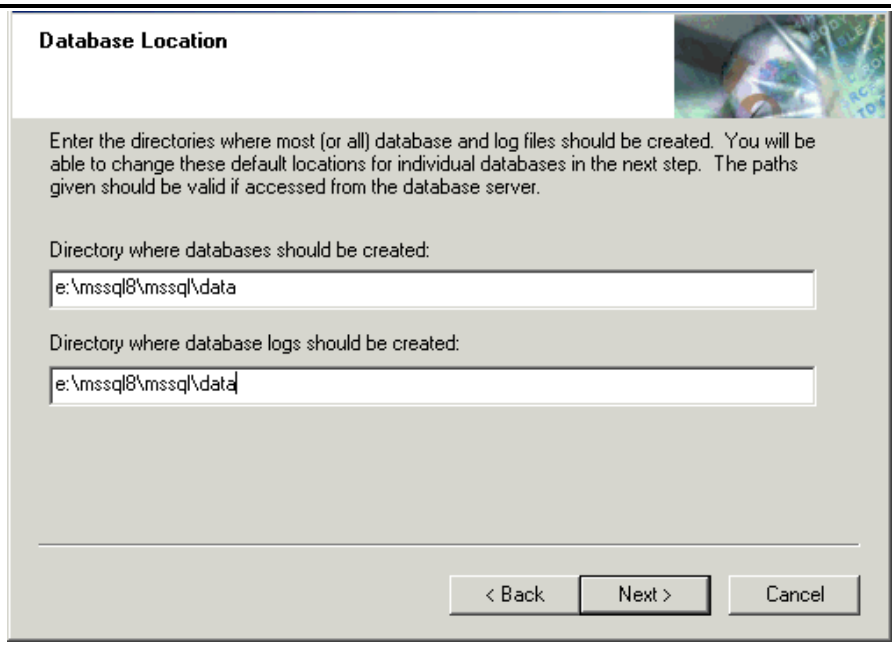
Run the Database Server Setup program on the installation workstation from the directory where you installed SmartStream.

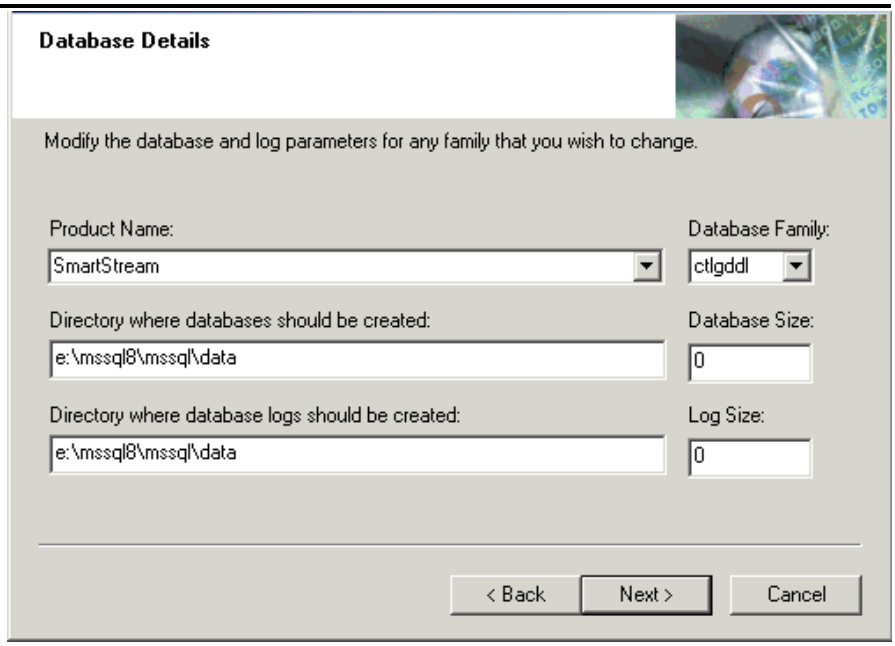
Creating Databases

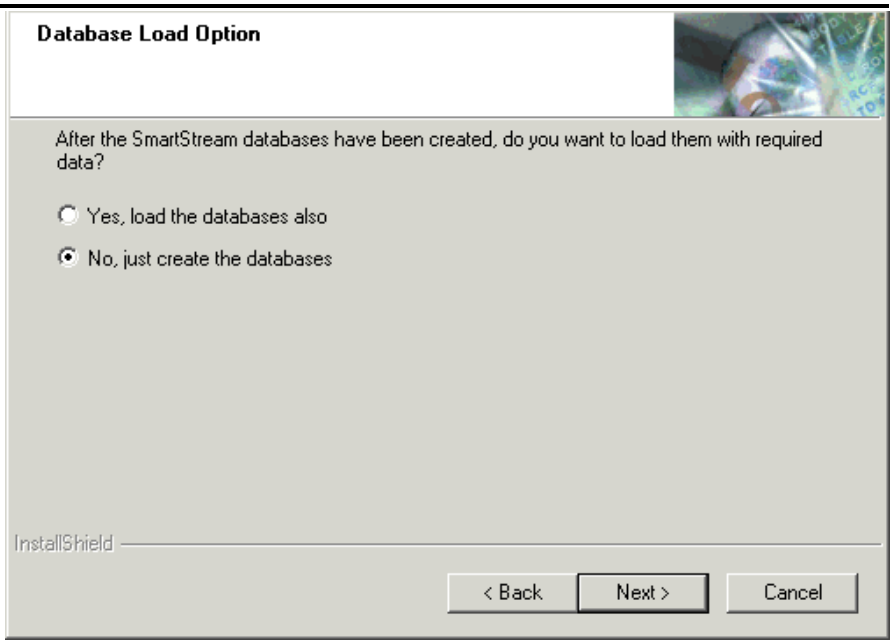
Step	Action
1	Run **setup.exe** from the \createld directory at the root of the file server image. **Result:** The SmartStream Create and Load Program window appears.
2	 Click Next. **Result:** The SmartStream Environment window appears.

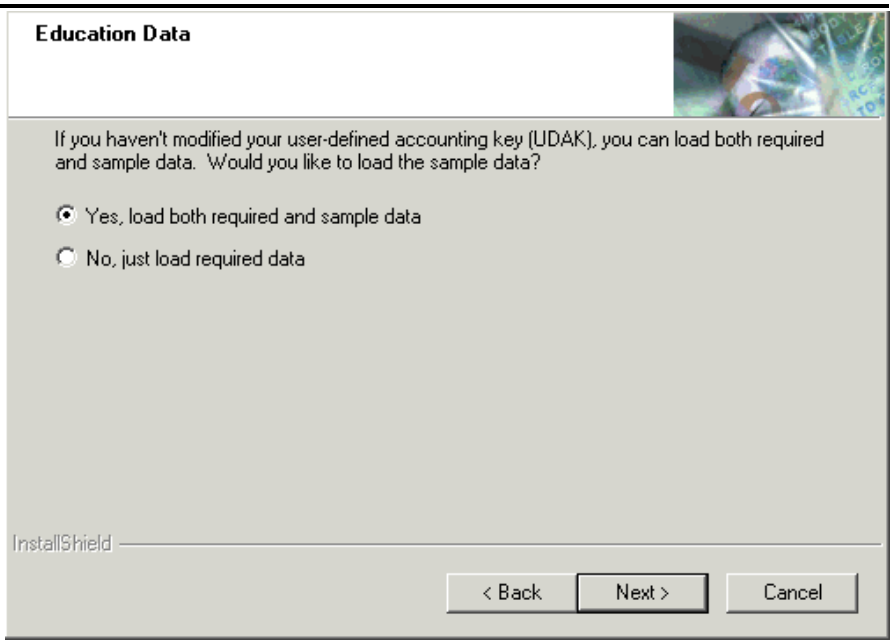
Step	Action
3	 Specify the environment where you want products installed and click Next: ▪ **For a new environment**, enter the description of the environment. ▪ **For an existing environment**, select the environment where you want the databases created. **Result:** The Database Server window appears.

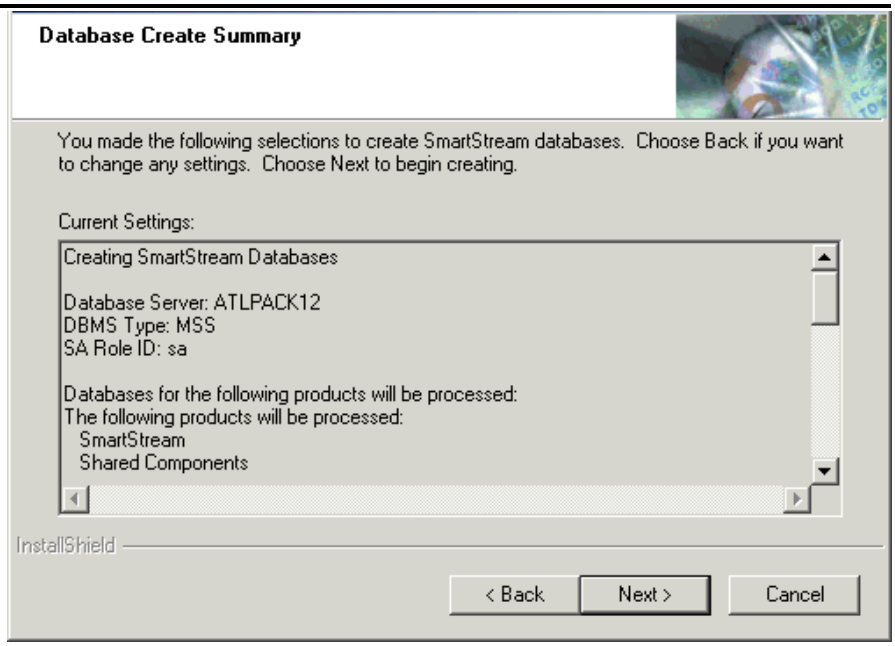
Step	Action
4	 Enter information about where you want the databases created and click Next. **Result:** The Product Selection window appears.
5	 Select the products to create databases for and click Next. **Result:** The Database Location window appears.

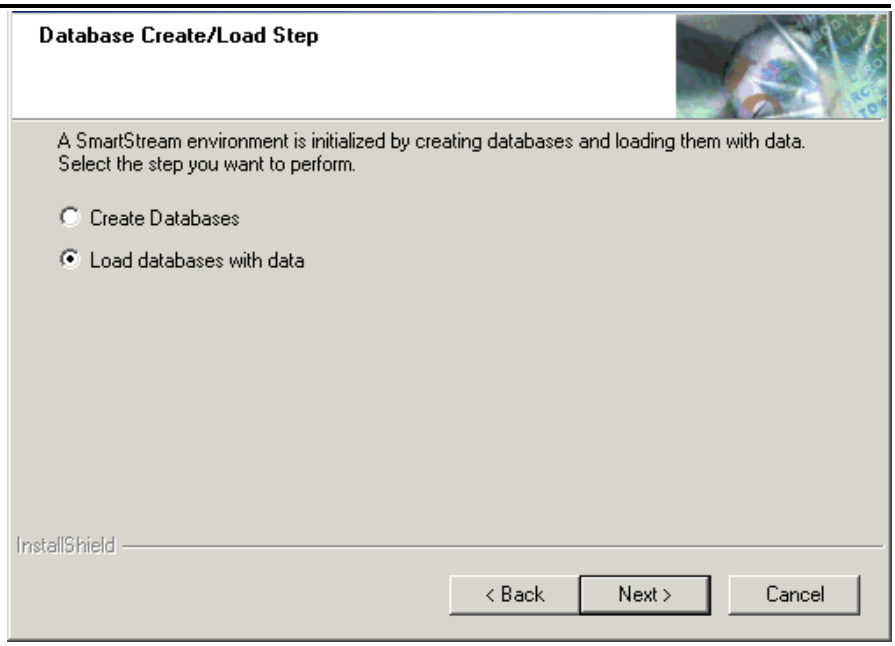
Step	Action
6	 Define the database location settings. ▪ **For Sybase**, enter the data device name for the Sybase database server. **Note:** You can use the SP_helpdevice command from your Adaptive Server Enterprise SQL client to find the names for these devices. ▪ **For Microsoft SQL Server**, enter the path to the directory where you want data and log files created. **Note**: The path you enter for Microsoft SQL Server must be for the server that is running Microsoft SQL Server. Click Next. **Result:** The Database Details window appears.

Step	Action
7	 Click Next to accept the defaults, or change the default database and log sizes as needed and click Next. **Result:** The Database Load Option window appears.

Step	Action
8	 If you want to create the databases and load data into them during this run of the process, select **Yes**. Click Next. Go to the **next step** in this procedure. If you want to create the databases but load the data into them later during a separate run of the process, select **No**. Click Next. Go to **Step 10** in this procedure.

Step	Action
9	 On the Education Data window, determine whether you want to load both required and sample data or required data only and click Next. **Note:** You can load sample data only if you did **not** tailor your accounting key. **Result:** The Database Create Summary window appears.

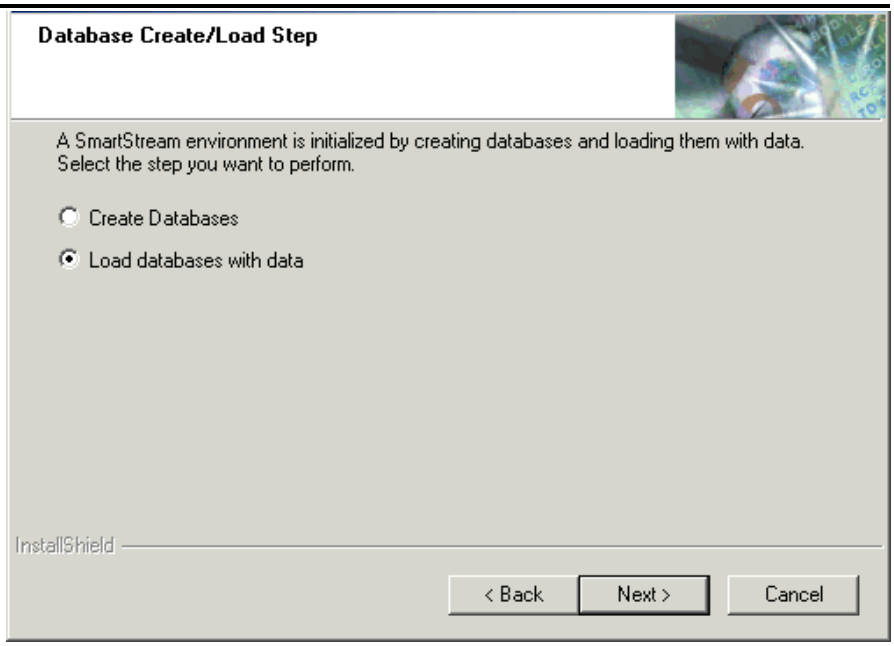
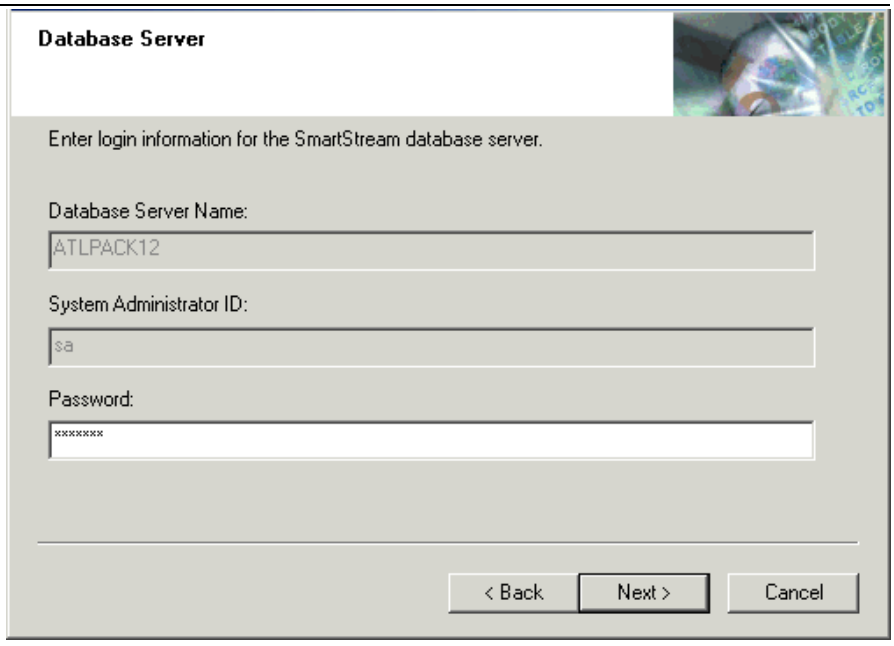
Step	Action
10	 On the Database Create Summary window, review the selections you made. To make changes, click Back. To finish the setup process, click Next. **Result:** The setup program begins creating databases, and loading data if requested. If errors occur during processing, the Database Error Review window appears where you can ▪ Correct the errors using the list of files and the Edit button. Then click Retry. ▪ Click Cancel to end the process without making the requested changes. If no errors occur, the Database Operations window appears.

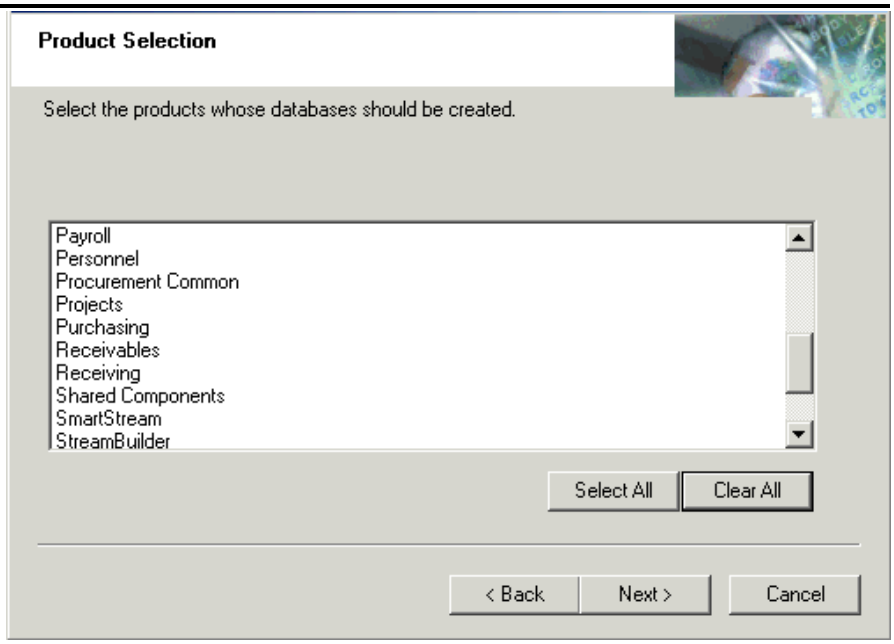
Step	Action
11	 Take one of the following actions: ▪ **If your databases were created and loaded with data**, click Exit ▪ **If your databases were created but not loaded**, click Exit and go to the Loading Databases procedures.

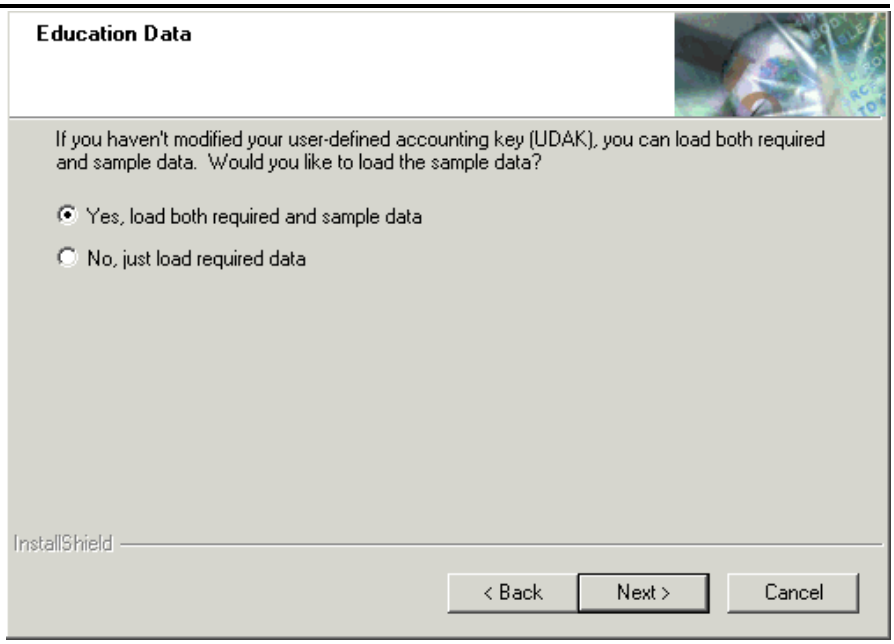
Loading Databases

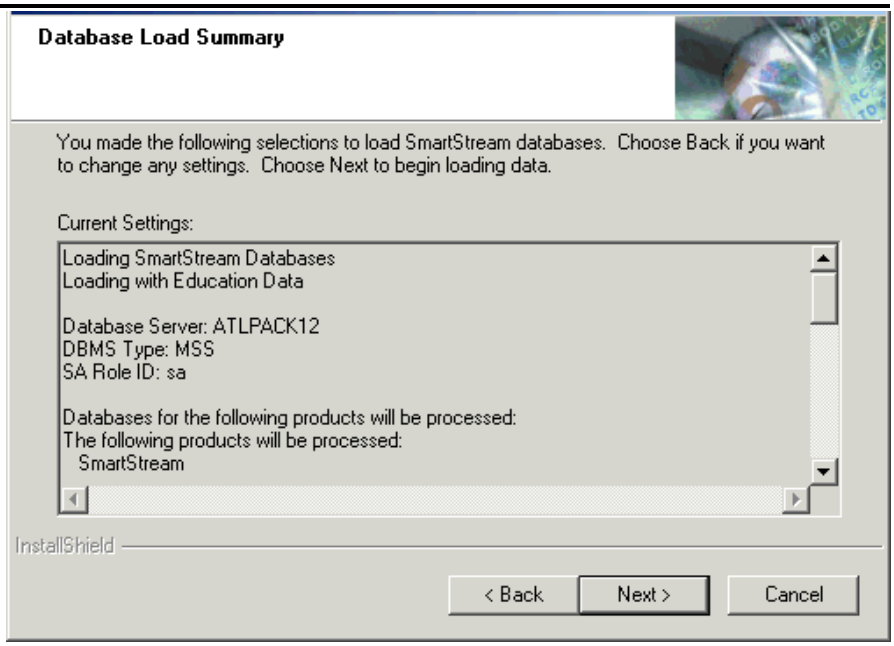
If you choose to load data into the databases you created during a separate run of the process, complete the following steps:

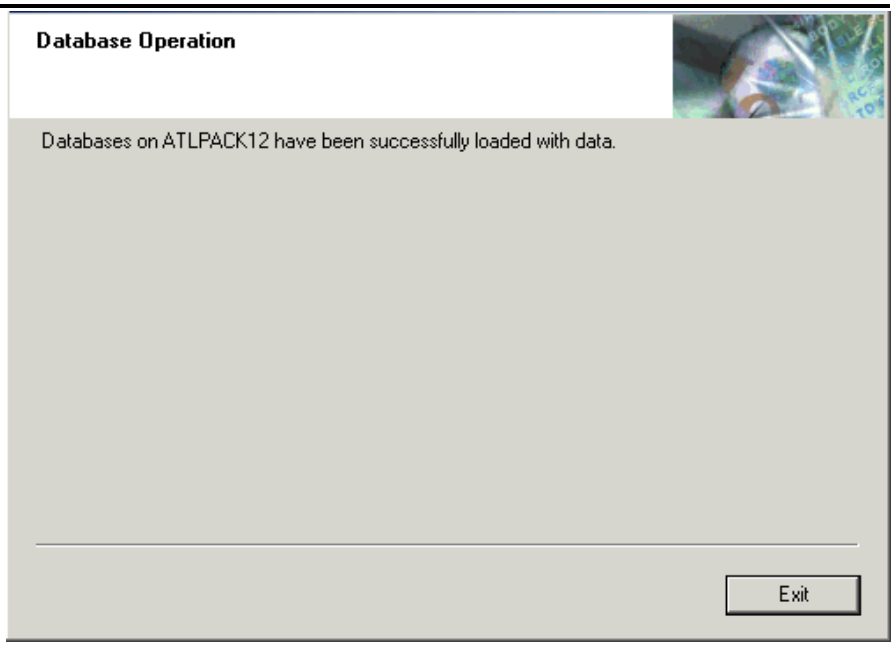
Step	Action
1	Run setup.exe from the createId directory at the root of the file server image. **Result:** The Database Create/Load Step window appears.

Step	Action
2	 Select Load databases with data and click Next. **Result:** The Database Server window appears.
3	 Enter the password for the database server and click Next. **Result:** The Product Selection window appears.

Step	Action
4	 Select the products whose data you want to load and click Next. **Result:** The Education Data window appears.

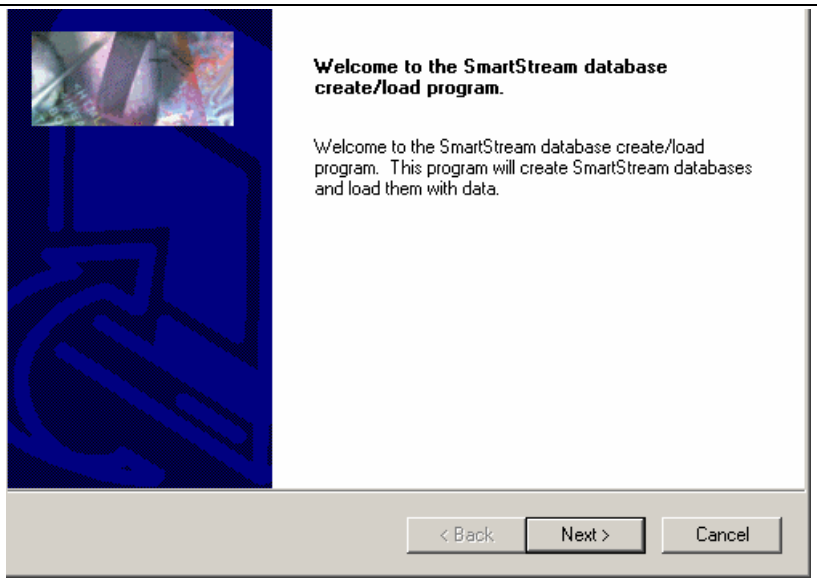
Step	Action
5	 Determine whether you want to load both required and sample data or required data only and click Next. **Notes:** ▪ You can load sample data only if you did **not** tailor your accounting key. ▪ If you choose to load sample data on the Education Data window, before you can tailor your accounting key and load production data, you must run the table initialization program to remove the sample data and sample tables. **Result:** The Database Load Summary window appears.

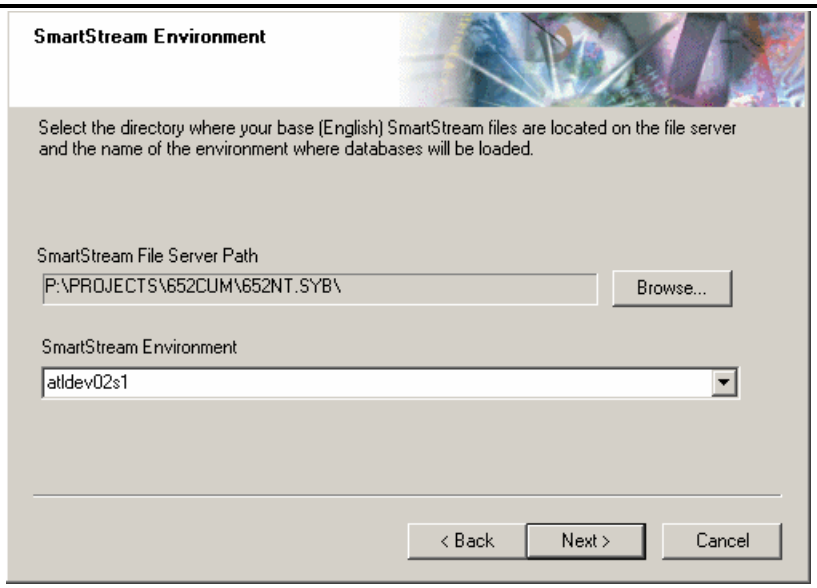
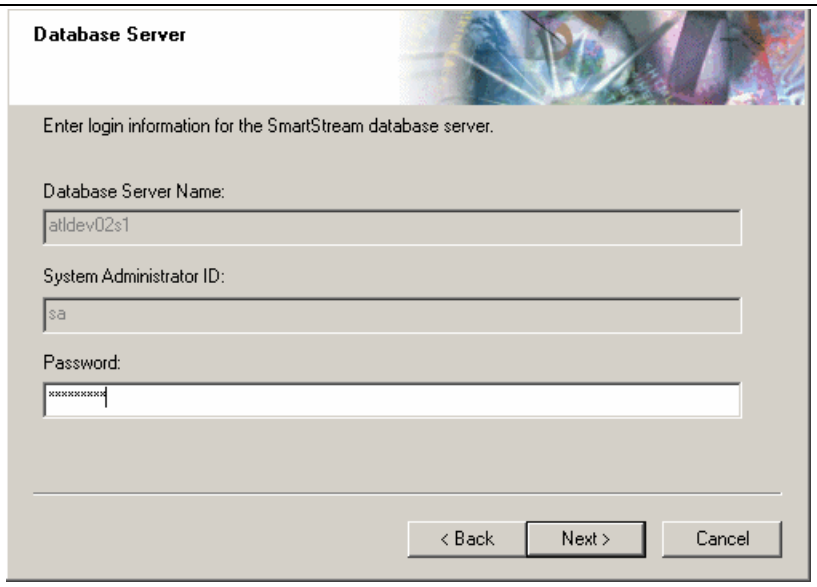
Step	Action
6	 Review the selections you made. If you need to make changes, click Back. If you want to continue, click Next. **Result:** The setup program begins loading the databases with data. If errors occur during processing, the Database Error Review window appears where you can ▪ Correct the errors using the list of files and the Edit button. Then click Retry. ▪ Click Cancel to end the process without making the requested changes. If no errors occur, the Database Operations window appears.

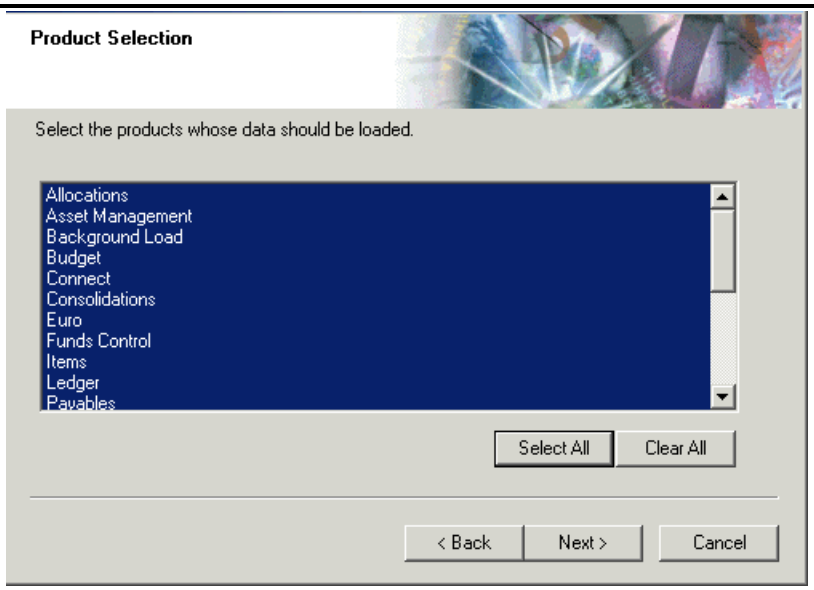
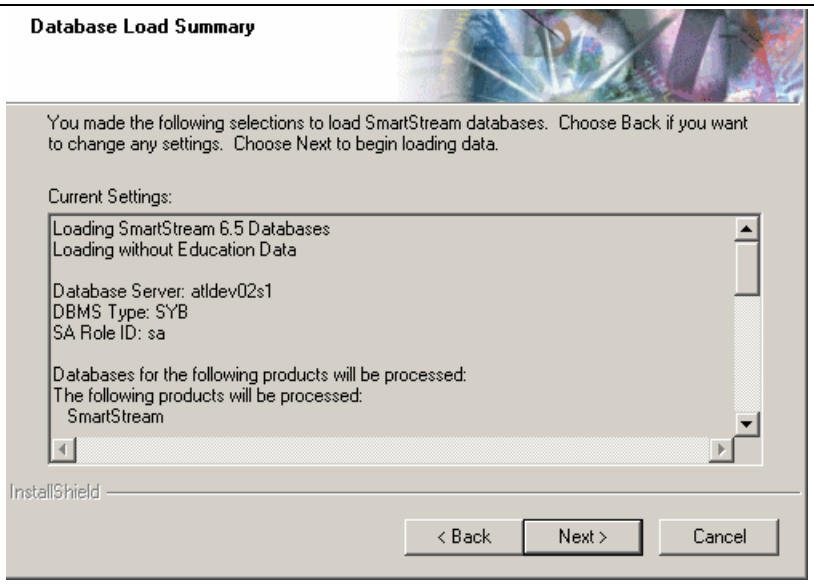
Step	Action
7	 Click Exit when processing completes successfully.

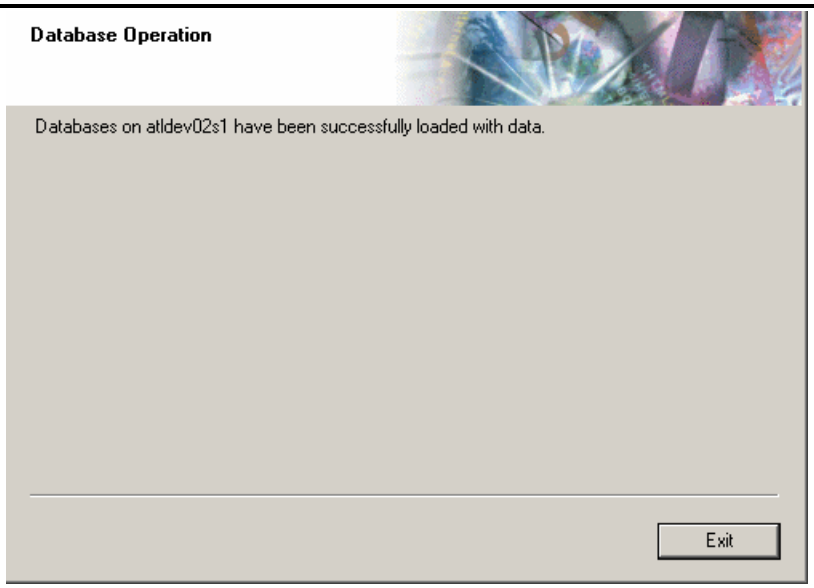
Loading SmartStream Language Kits

If you have licensed language kits, complete the following steps for each one:

Step	Action
1	Run setup.exe from the createld directory at the root of the language kit file server image. **Result:** The Welcome to the SmartStream database create/load program window appears.
2	 Click Next. **Result:** The SmartStream Environment window appears.

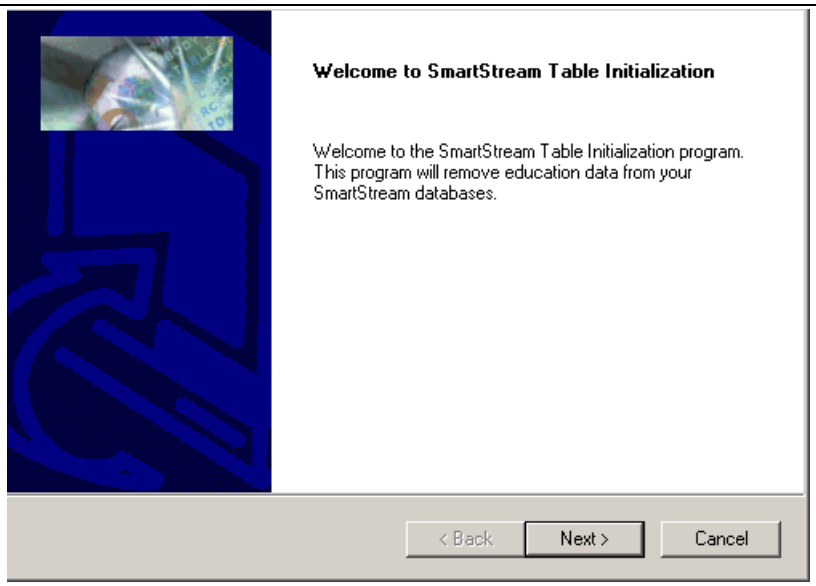
Step	Action
3	 Enter the directory where SmartStream is installed on the file server, select an environment or type the name of a new environment that you want to create. **Result:** The Database Server window appears.
4	 Enter information about the server where you want to load the language kit data and click Next. **Result:** The Product Selection window appears.

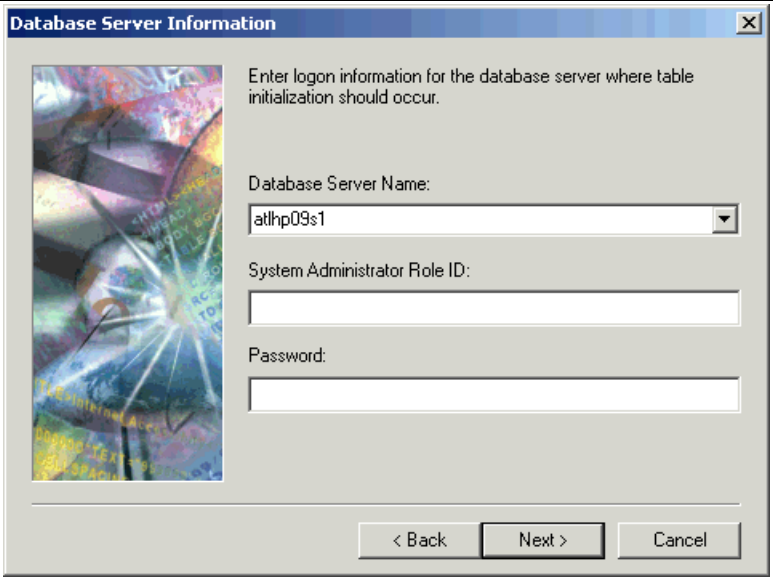
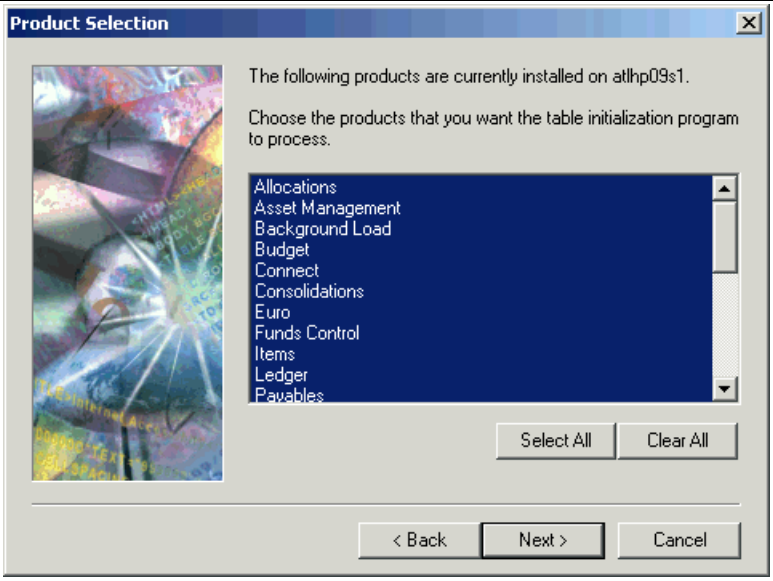
Step	Action
5	 Use the buttons to choose the products that you want to install and click Next. **Result:** The Database Load Summary window appears.
6	 Review the selections you made. - If you need to make changes, click Back. - If you want to continue, click Next then Finish. **Result:** The setup program begins loading data. If errors occur during processing, the Database Error Review window appears where you can - Correct the errors using the list of files and the Edit button. Then click Retry. - Click Cancel to end the process without making the requested changes. If no errors occur, the Database Operations window appears

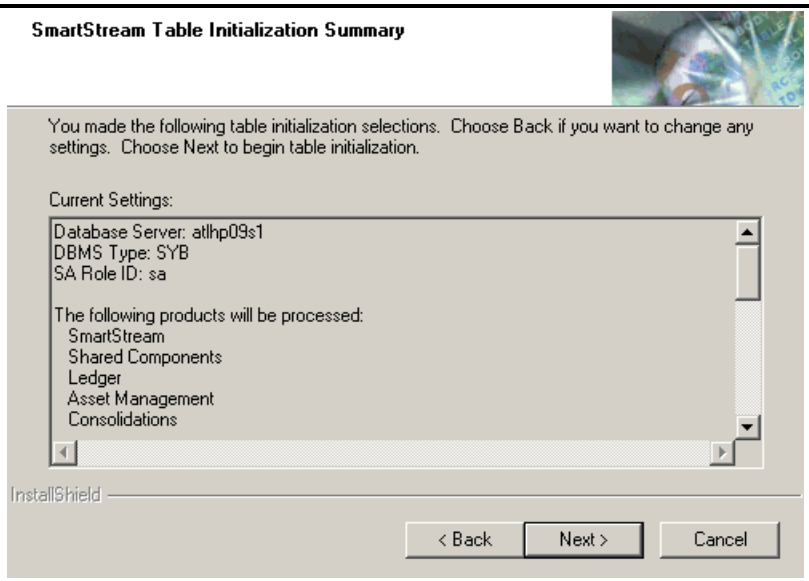
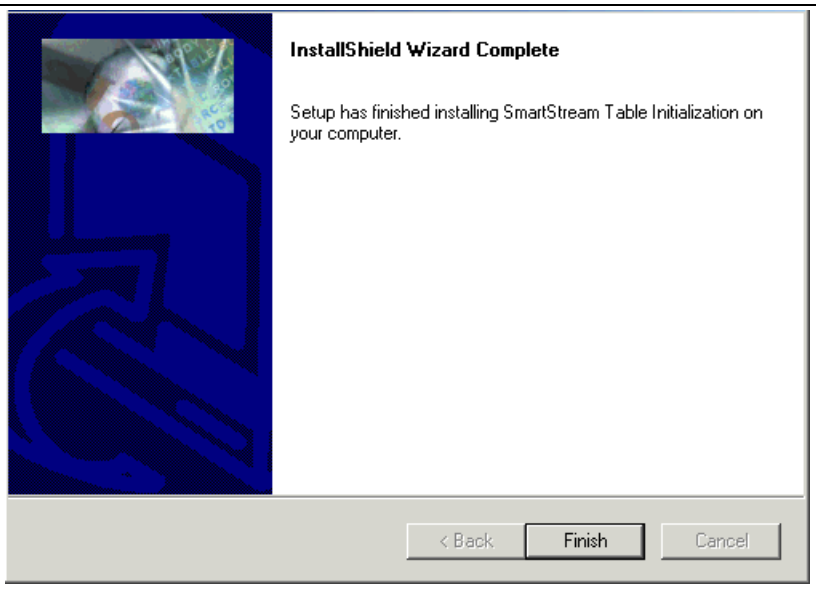
Step	Action
7	 Click Exit.

Initializing Tables

Run the Table Initialization program to remove education and sample data from your SmartStream database tables if you loaded this data. It also loads minimum required data into the tables.

Step	Action
1	Run **setup.exe** from the \dbms directory on the SmartStream file server. **Result:** The Welcome to SmartStream Table Initialization window appears.
2	 Click Next.
3	If you have multiple environments, the SmartStream Environment on File Server window appears. Specify the SmartStream environment you want to process tables in and click Next. **Result:** The Database Server Information window appears.

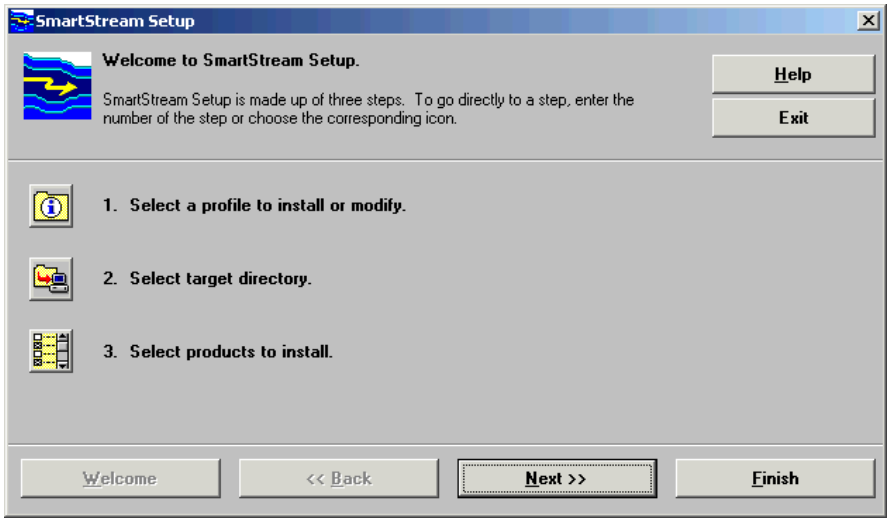
Step	Action
4	 Enter the database server logon information and click Next. **Result:** The Product Selection window appears
5	 Select the products whose tables you want processed and click Next. **Note:** The products listed are loaded on the database server. **Result:** The SmartStream Table Initialization Summary window appears.

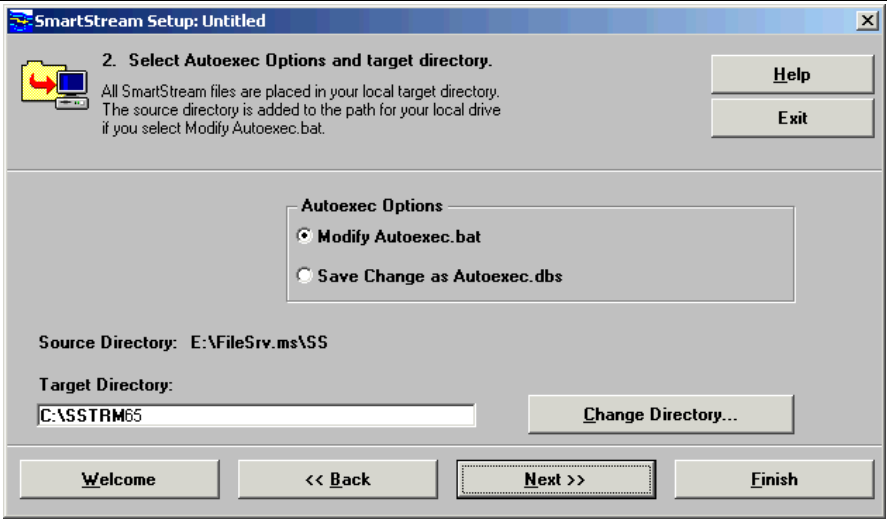
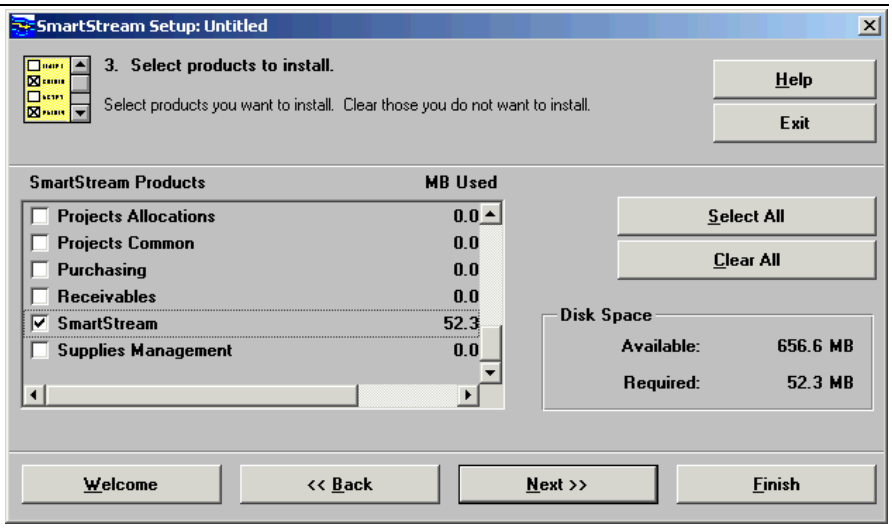
Step	Action
6	 Review your selections and click Next to begin table initialization.
7	 Click Finish when processing completes successfully.

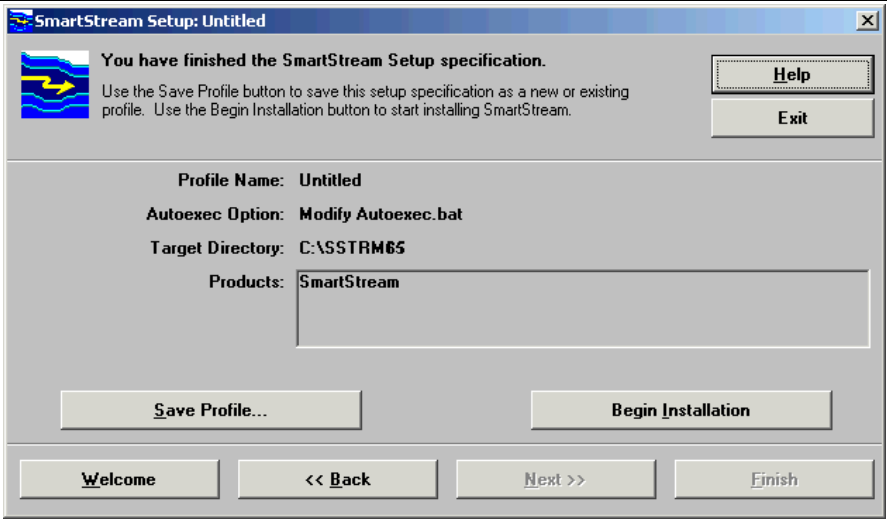
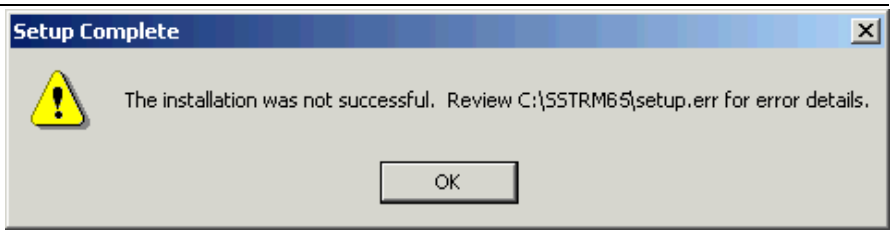
Installing SmartStream Clients

SmartStream provides several options for installing and reinstalling SmartStream clients. For information about the available options, see Options for Upgrading SmartStream Client Workstations in the SmartStream *Migration Guide*.

To install SmartStream products on your client workstation according to your personal specifications or to create a profile to use for multiple client workstations, you can use the custom installation method described in the following procedure:

Step	Action
1	Uninstall any previous version of SmartStream Client.
2	Prepare the SmartStream client workstation by configuring it properly and installing any third-party software you require.
3	Run **setup.exe /a** from the \ss directory on the file server. **Result:** The SmartStream Setup window appears.
4	 Click the icon for 2 and click Next. **Result:** The 2. Select Autoexec Options and target Directory window appears.

Step	Action
5	 Select the appropriate autoexec option, enter the path for the target directory, and click Next. **Result:** The 3. Select products to install window appears.
6	 Select products to install and click Next. **Result:** The you have finished the SmartStream Setup specification window appears.

Step	Action
7	 If you are creating a profile, click Save profile and provide the necessary information. Click Begin Installation to install SmartStream.
8	 Review the **setup.err** file if this error message appears.
9	After successful installation, reboot the workstation.

Configuring Your User-Defined Accounting Key (UDAK)

To configuring your user-defined accounting key, you must complete the following tasks:

- Tailoring the delivered accounting key
- Applying your user-defined accounting key to triggers, stored procedures, views, and tables
- Applying your accounting key to the files used to export and import data during migration
- Tailoring the accounting key in your architecture tables
- Regenerating the dynamic runtime libraries

The first three are described in this topic.

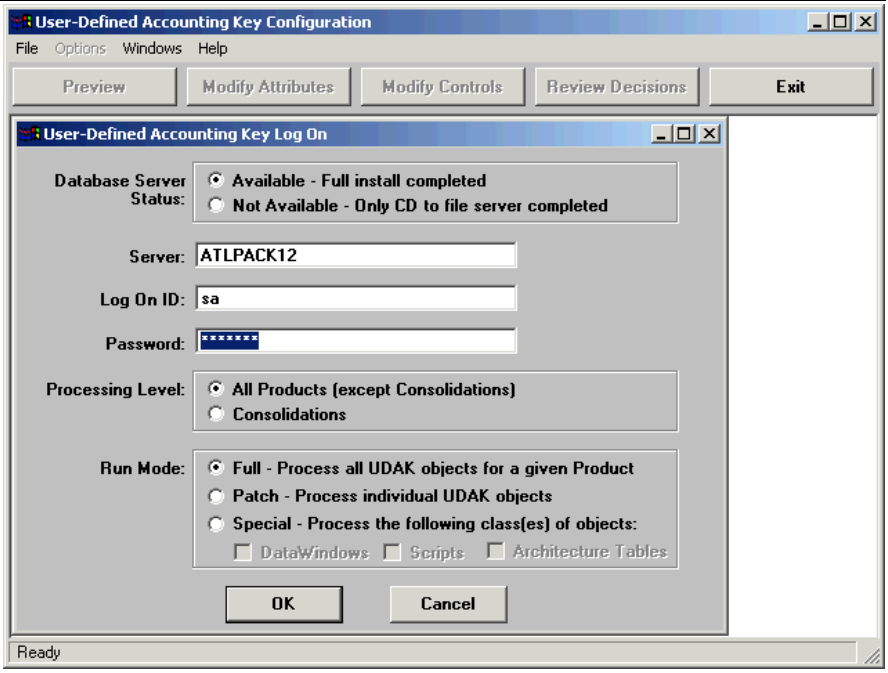
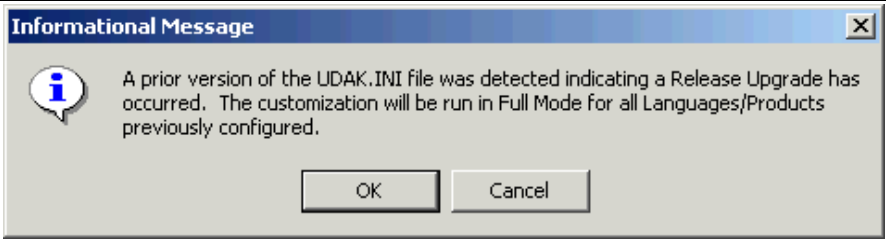
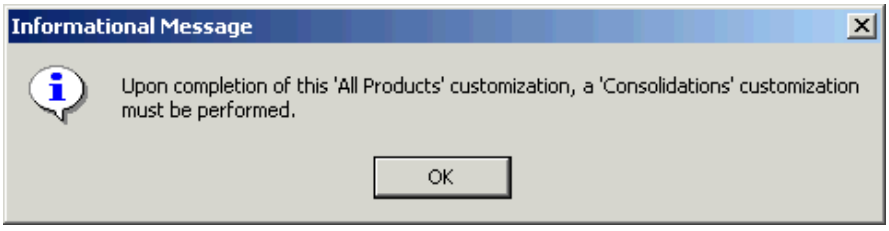
Run the User-Defined Accounting Key (UDAK) program to tailor triggers, stored procedures, views, tables, and windows with the accounting fields and reporting periods you define.

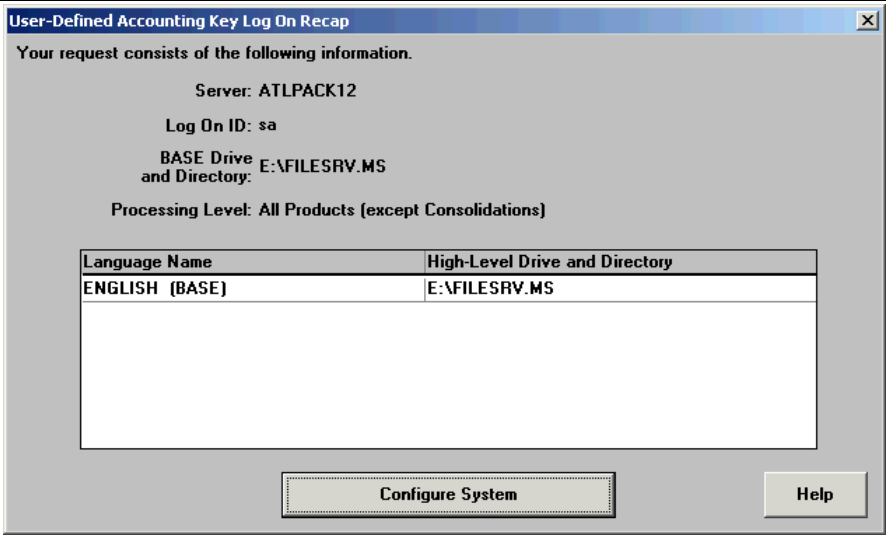
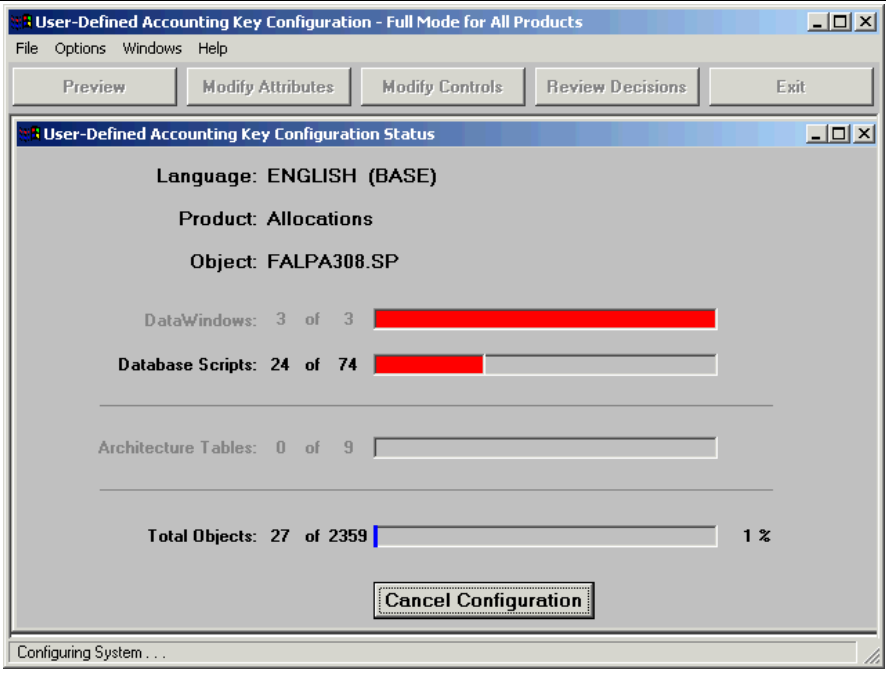
If the accounting key in the SmartStream environment you are migrating has been tailored, then you need to tailor the one in the new SmartStream environment as well. To migrate SmartStream data successfully, the column names in the two environments must match.

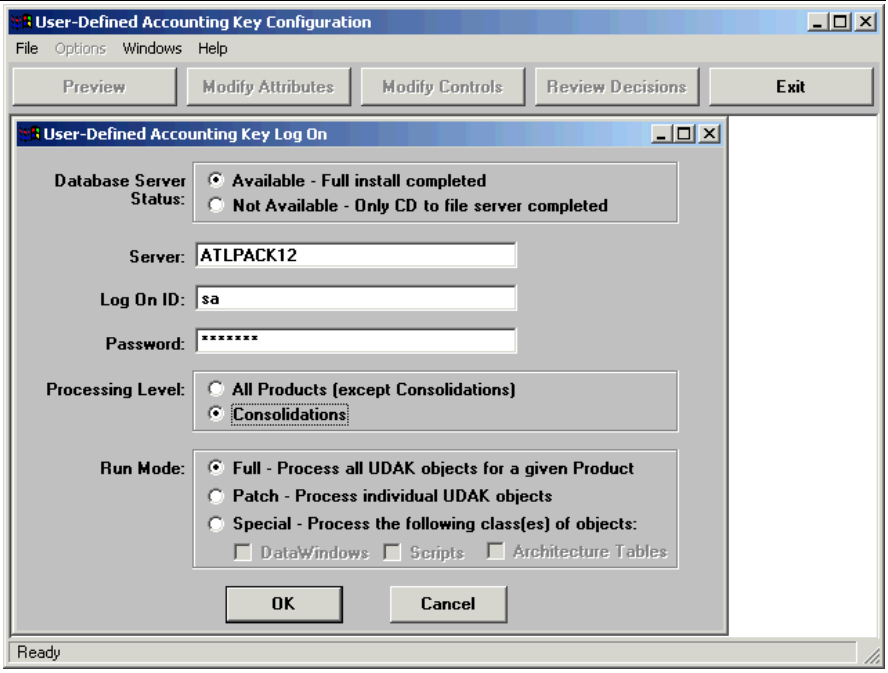
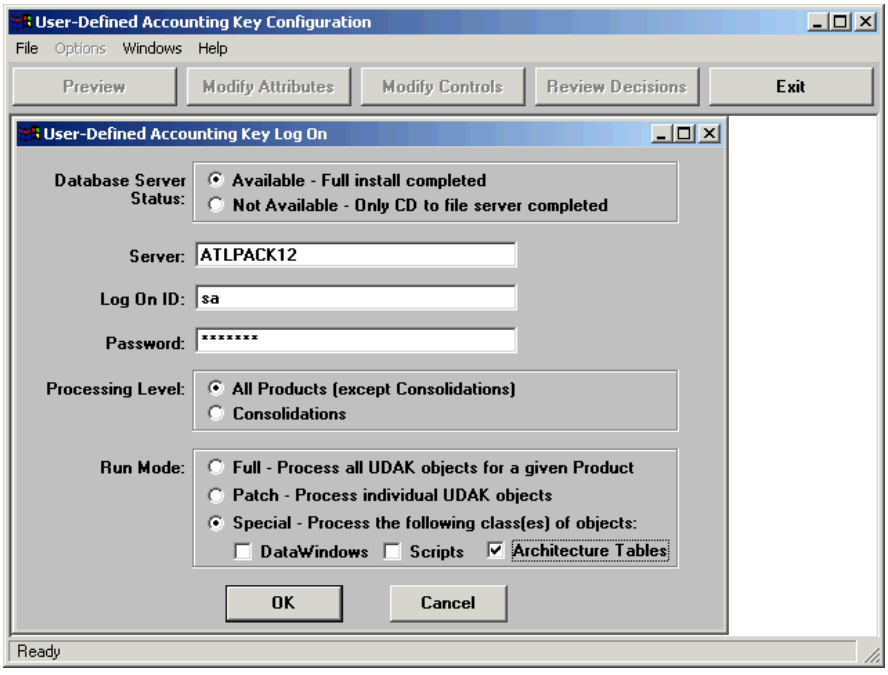
Running the UDAK Program

To run the UDAK program, complete these steps:

Step	Action
1	On your SmartStream file server, copy the udak.ini file from the dbms\udak directory for your current version of SmartStream to the dbms\udak directory for the new version of SmartStream.
2	Run **udak.exe** from the dbms\udak directory for the new version of SmartStream on your SmartStream file server. **Result:** The User-Defined Accounting Key Log On window appears.

Step	Action
3	 Enter the appropriate logon information and click OK to tailor your accounting key for all products except Consolidations and newly licensed products. **Note:** When you are migrating from an earlier release, your existing udak.ini file is recognized and UDAK.exe configures all products to match your user-defined key. Two informational messages are displayed.
4	  Click OK for both. **Result:** The User-Defined Accounting Key Log On Recap window appears.

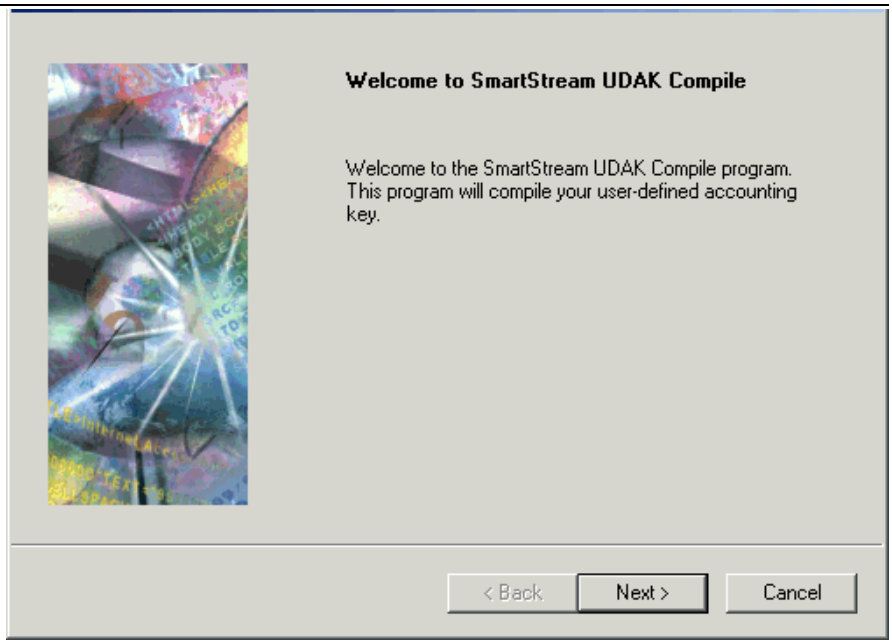
Step	Action
5	 Click Configure System to begin tailoring your accounting key. **Result:** The User-Defined Accounting Key Configuration Status window appears.
6	 Go to Step 7 if UDAK.exe was run for Consolidations in your previous SmartStream release. If not, go to Step 9.

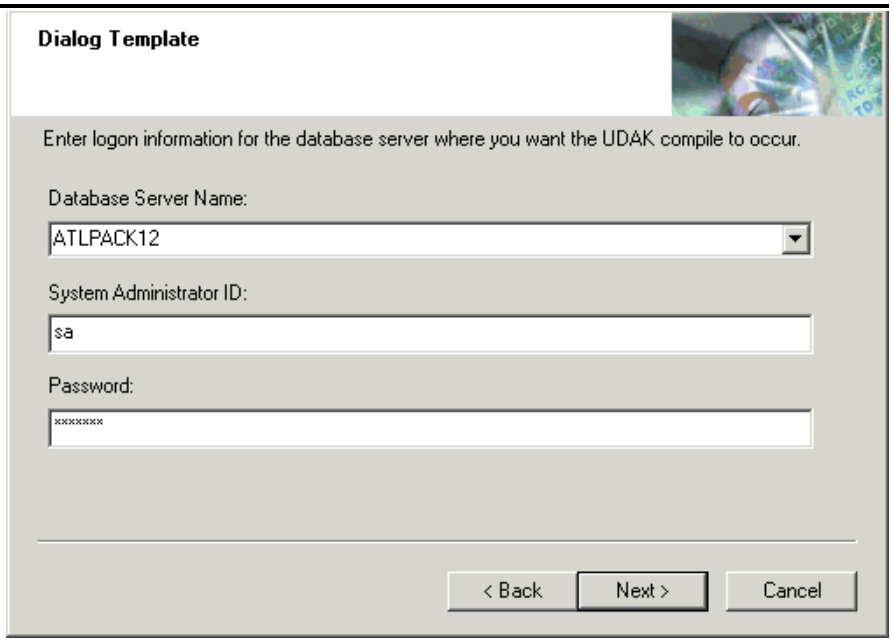
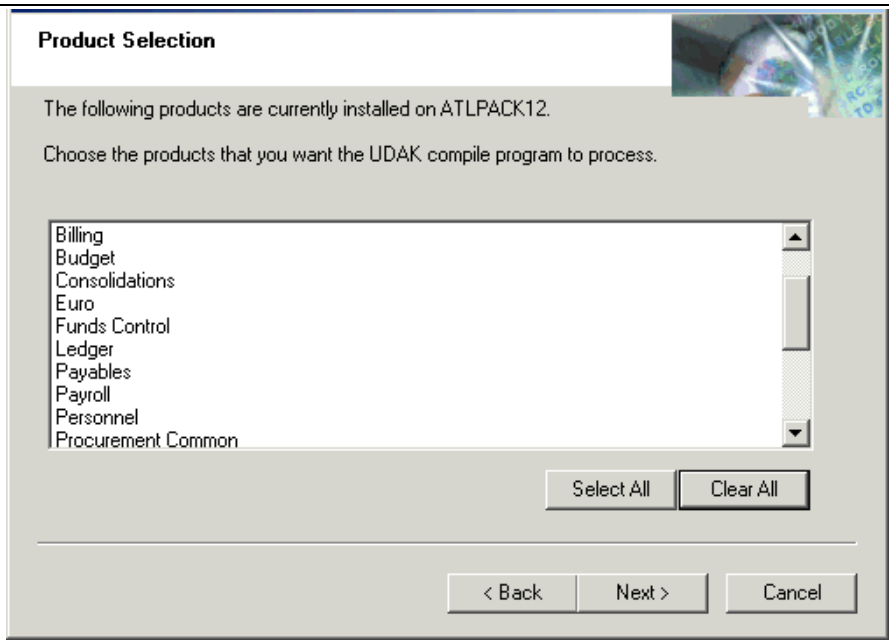
Step	Action
7	 Run **udak.exe** again for Consolidations.
8	 Run **udak.exe** again if you have newly licensed products. Verify that the run mode is **Special - Process the following class(es) of objects** and **Architecture Tables** is selected.
9	Run **udak.exe** again if Consolidations is newly licensed.

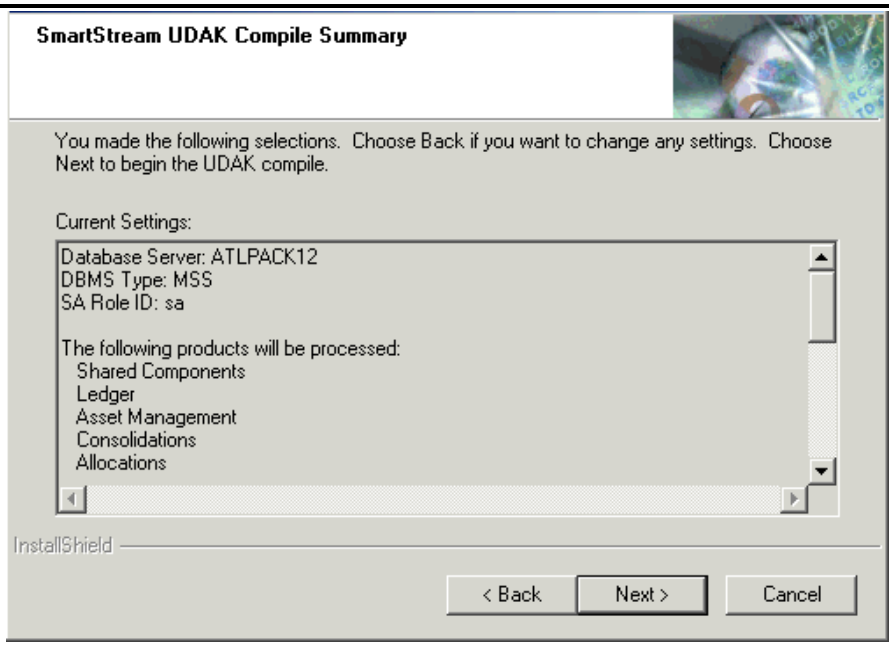
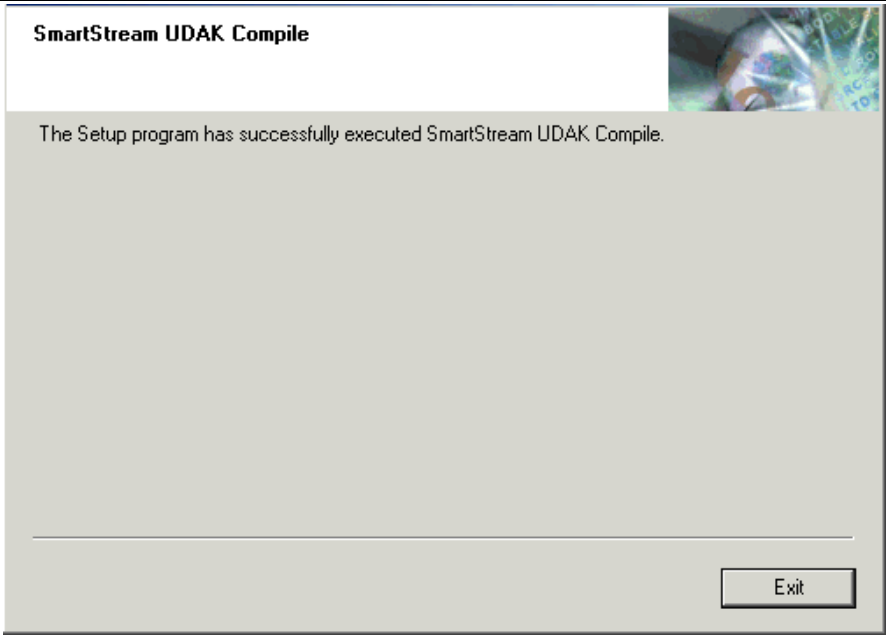
Step	Action
10	Exit the UDAK program when you finish tailoring your user-defined accounting key for all products including Consolidations and newly licensed products.

Applying Your Accounting Key

You can apply your user-defined accounting key to triggers, stored procedures, views, and tables by following these steps:

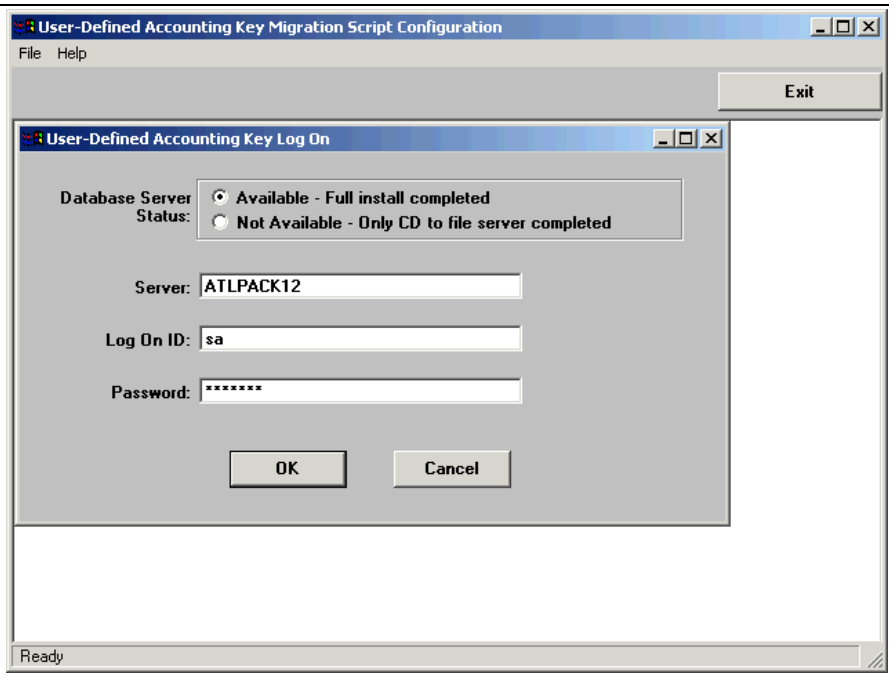
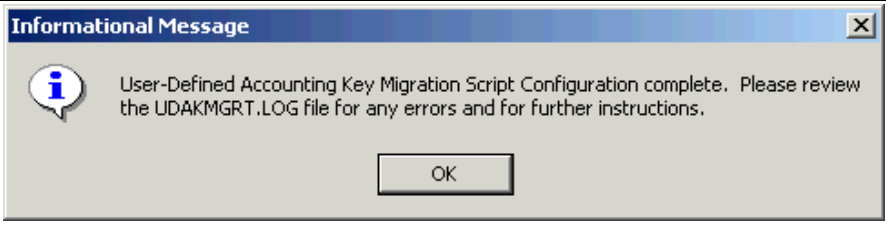
Step	Action
1	Run **setup.exe** from the dbms\udak directory on your SmartStream file server. **Note:** The SmartStream UDAK Compile window appears.
2	 Click Next. **Result:** The Database Server Information window appears.

Step	Action
3	 Enter the name and logon information for the database server where you want to run the compile process. **Result:** The Product Selection window appears.
4	 Select the products you want to process and click Next. **Result:** The SmartStream UDAK Compile Summary window appears.

Step	Action
5	 Review your selections and click ▪ **Back** to change current settings ▪ **Next** to begin compiling customized objects. **Result:** The SmartStream UDAK Compile window appears.
6	 Click Exit.

Migrating Your Accounting Key

After tailoring your accounting key for your new release, run the Accounting Key Migration utility. This utility converts the .bld files used to export and import data during migration.

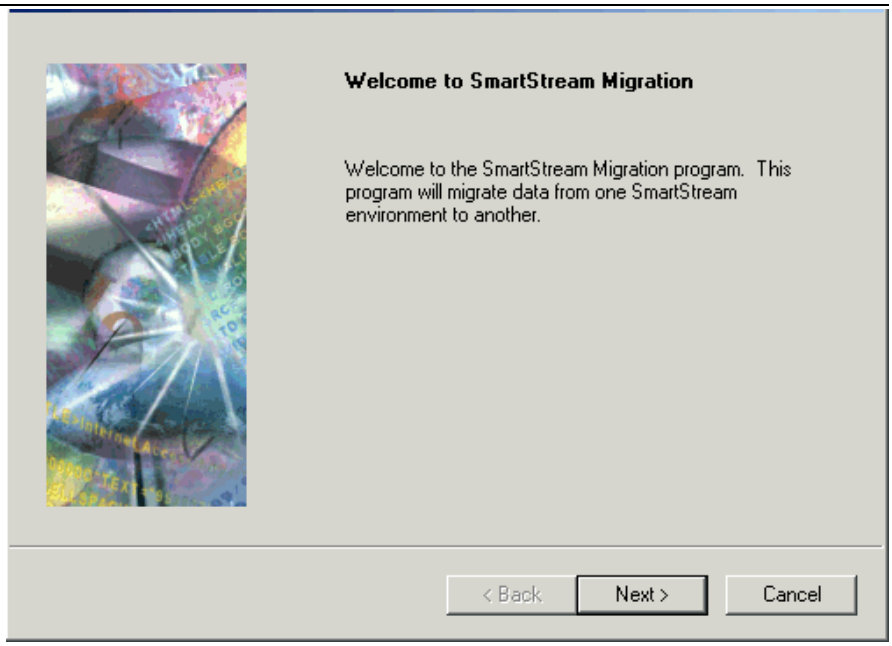
Step	Action
1	Run **udakmgrt.exe** from the **dbms\udak** directory on your SmartStream file server. **Result:** The User-Defined Accounting Key Migration Script Configuration window appears.
2	 Enter the logon information and click OK to process your .bld files. **Result:** An informational message is displayed when processing is complete.
3	 Click OK.

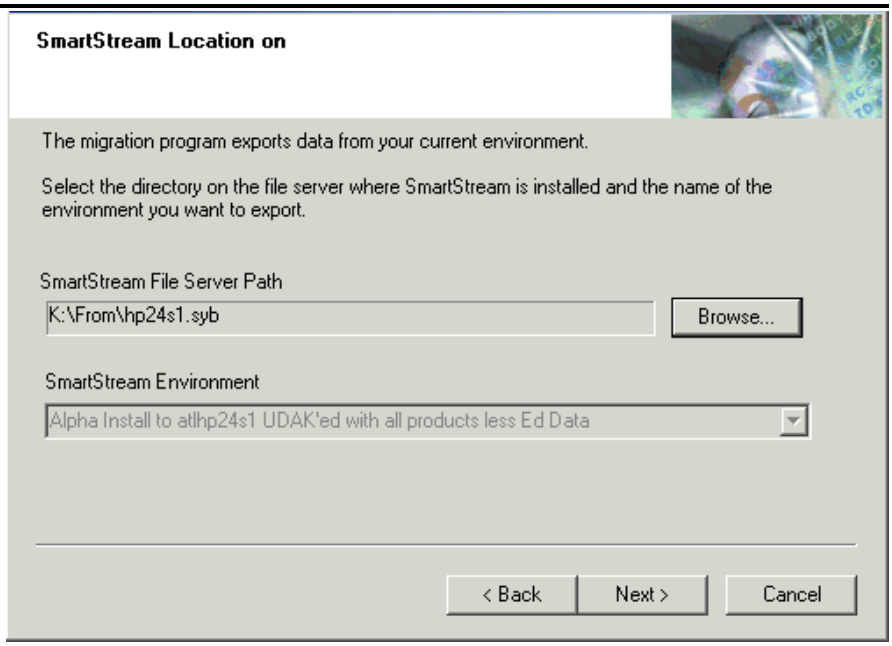
Running the Migration Program

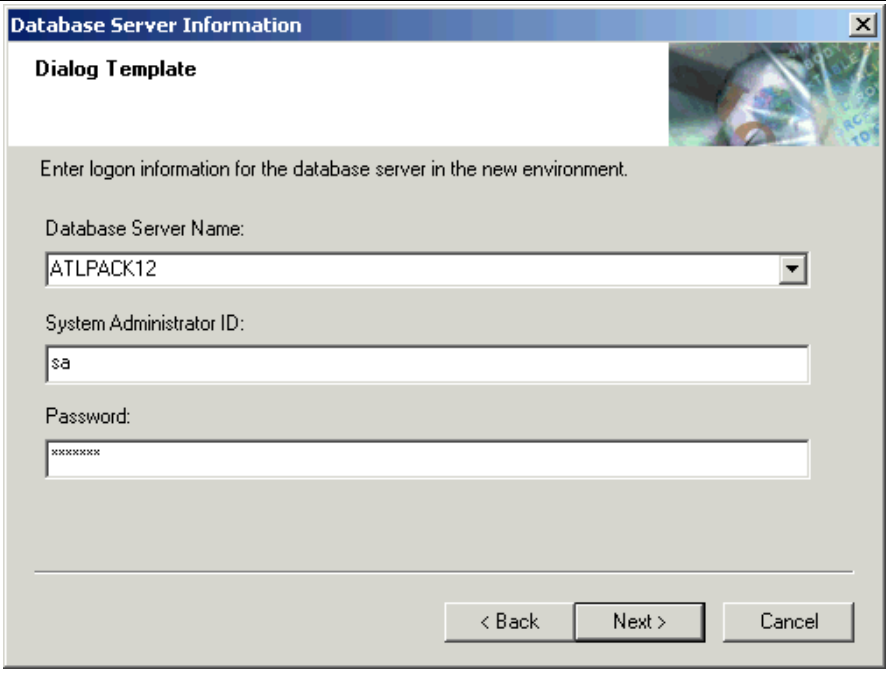
You can use the Migration program to export data from your current SmartStream environment and import it into the new SmartStream environment.

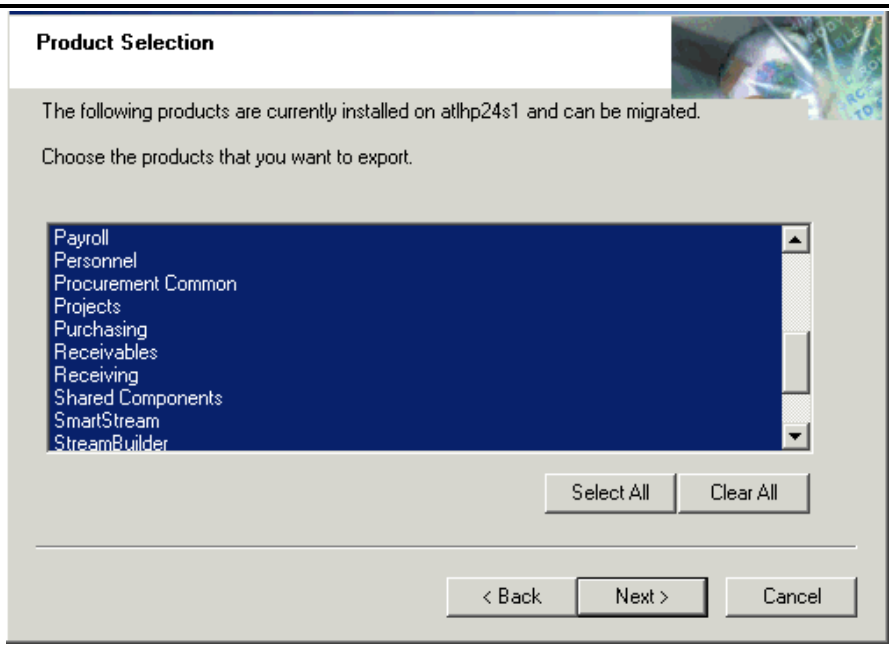
Windows

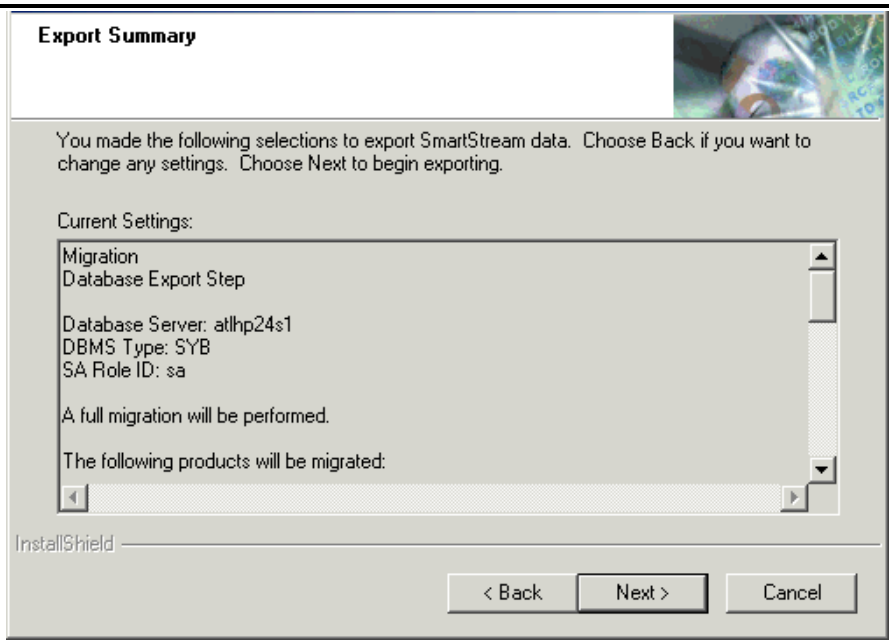
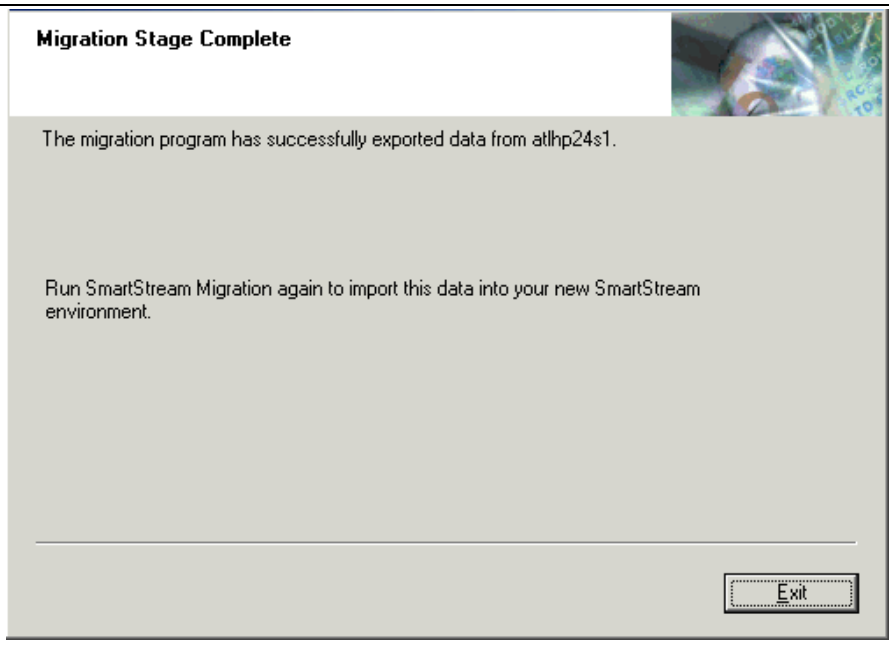
Complete the following procedure to run the migration process in a Windows environment:

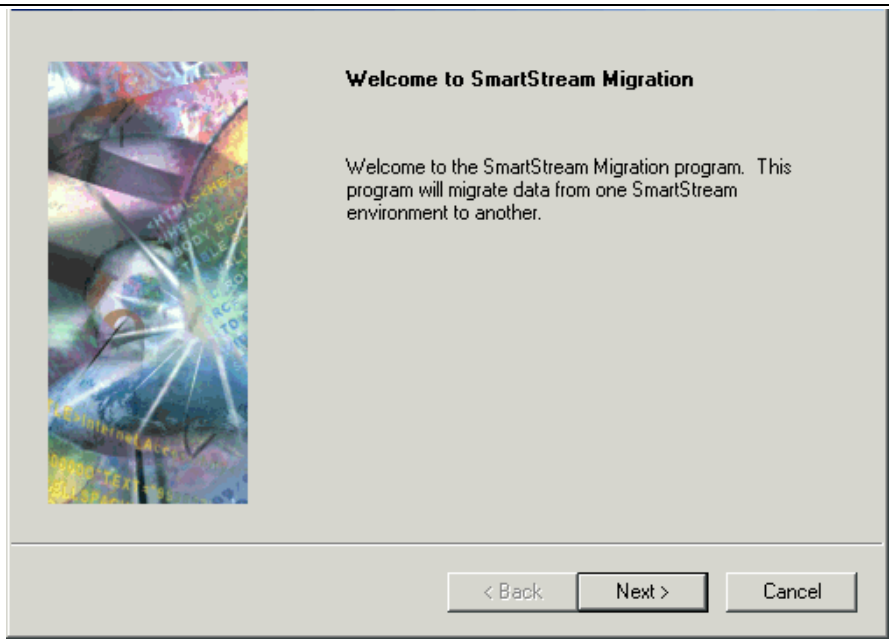
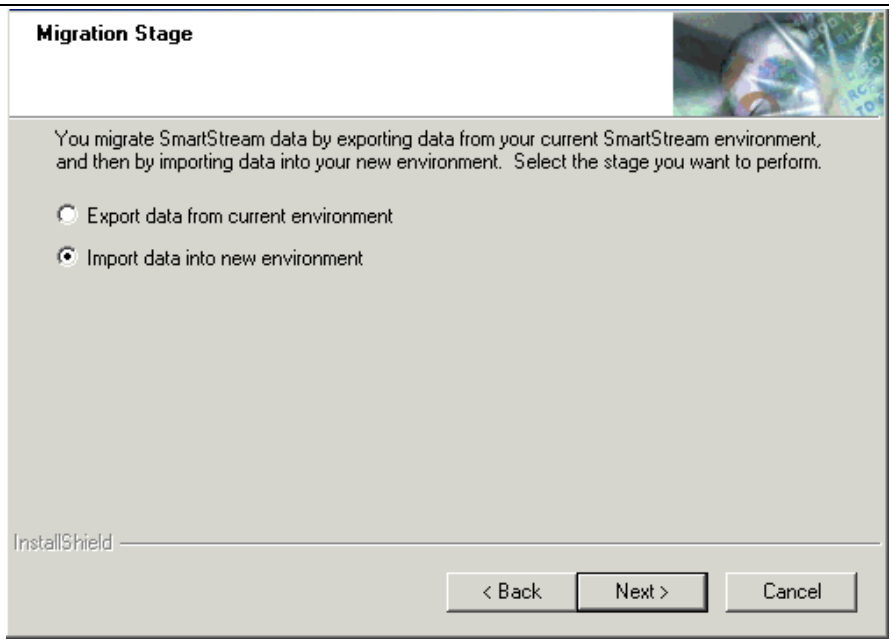
Step	Action
1	Run **setup.exe** from the **dbms\smartmig** directory on your SmartStream file server.
2	 Click Next. **Note:** The Migration program exports data the first time you run setup.exe. **Result:** The SmartStream Location on window appears.

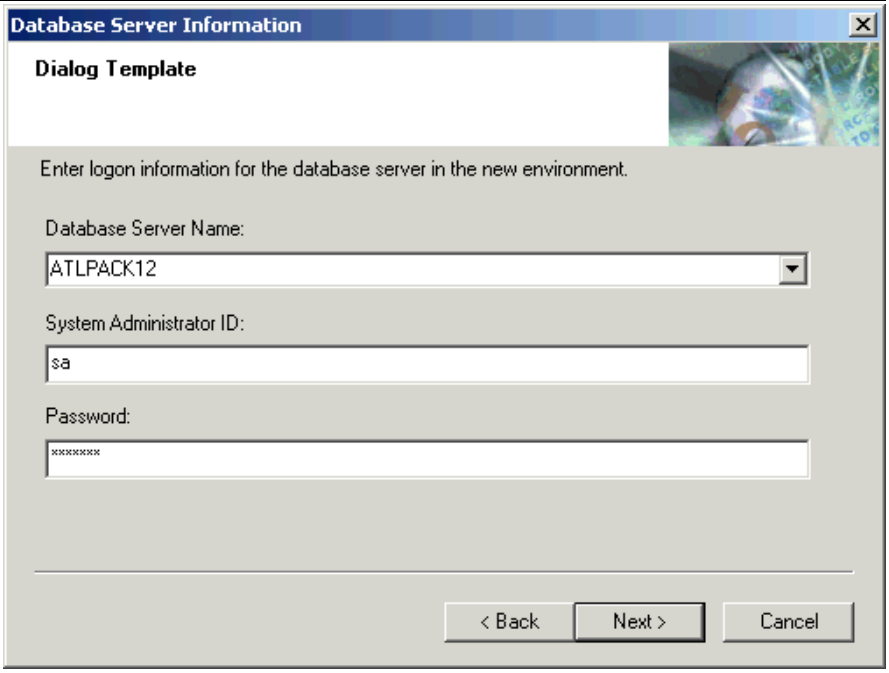
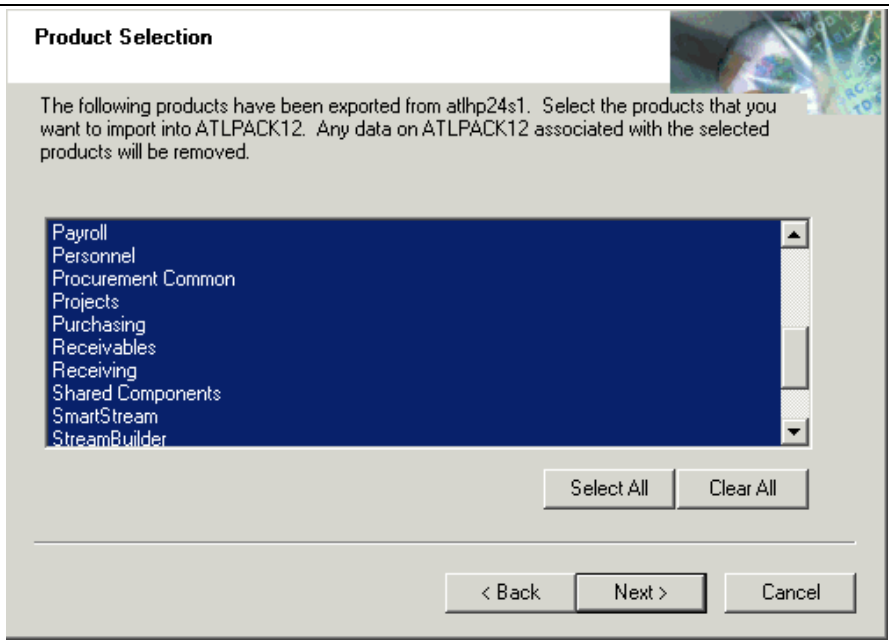
Step	Action
3	 Use Browse to find the directory that contains the dbsinst.ini file in the SmartStream environment that you are exporting data from, select the environment to export, and click Next. **Result:** The Database Server Information window appears.

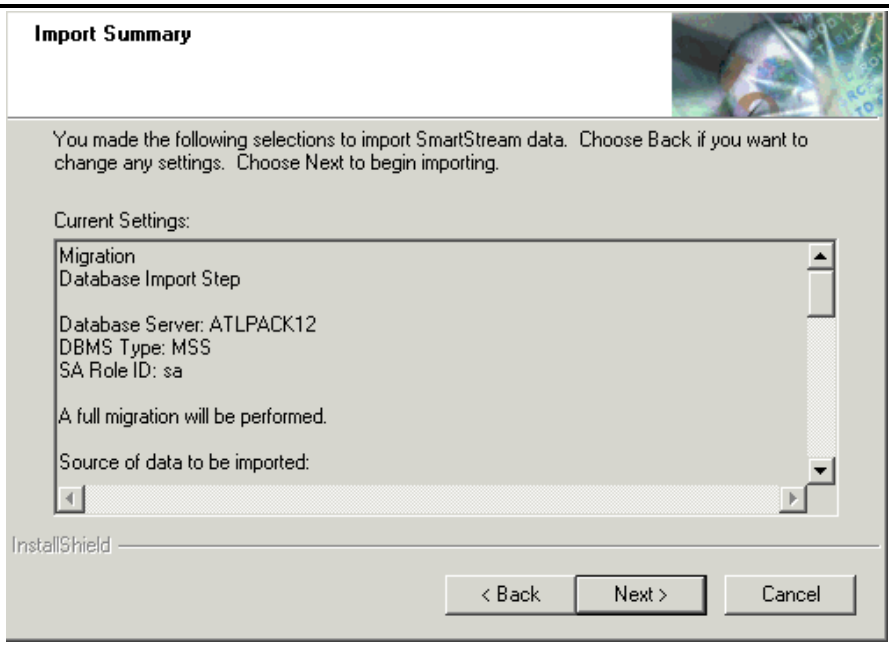
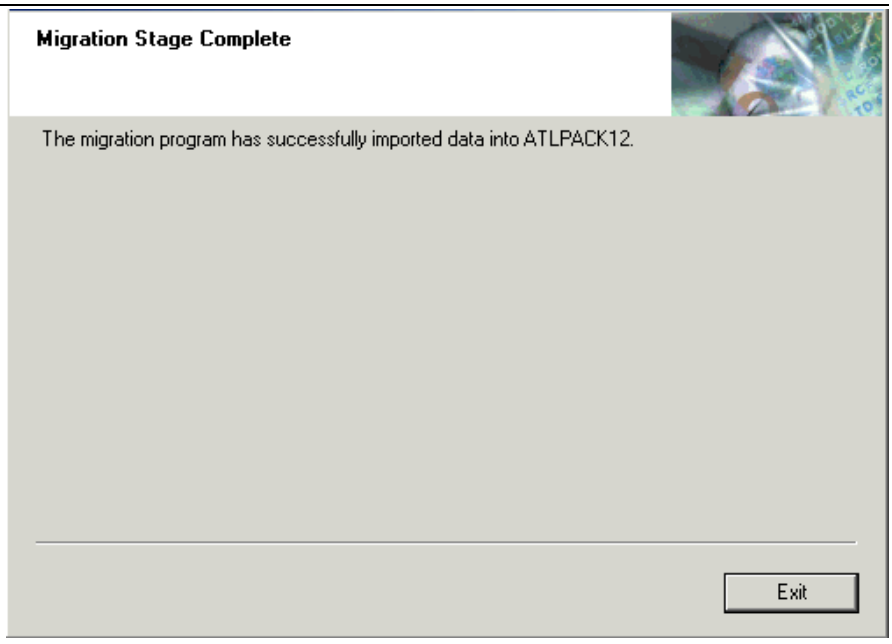
Step	Action
4	 Enter the logon information for the database server from which you are exporting data and click Next. **Result:** The Product Selection window appears.

Step	Action
5	 Select the products whose data you want to export and click Next. **Note:** The SmartStream platform is listed as **SmartStream** in the list of available products. **Result:** The Export Summary window appears.

Step	Action
6	 Review your selections and click ▪ **Back** to change settings ▪ **Next** to begin exporting data. **Result:** The Migration Stage Complete window appears when processing is complete.
7	 Click Exit.

Step	Action
8	Run **setup.exe** again to **import** data into the new environment.
9	 Click Next. **Result:** The Migration Stage window appears.
10	 Select **Import data into new environment** and click Next. **Result:** The Database Server Information window appears.

Step	Action
11	 Enter the logon information for the database server that you are importing data into and click Next. **Result:** The Product Selection window appears.
12	 Select the products whose data you want to import and click Next. **Result:** The Import Summary window appears.

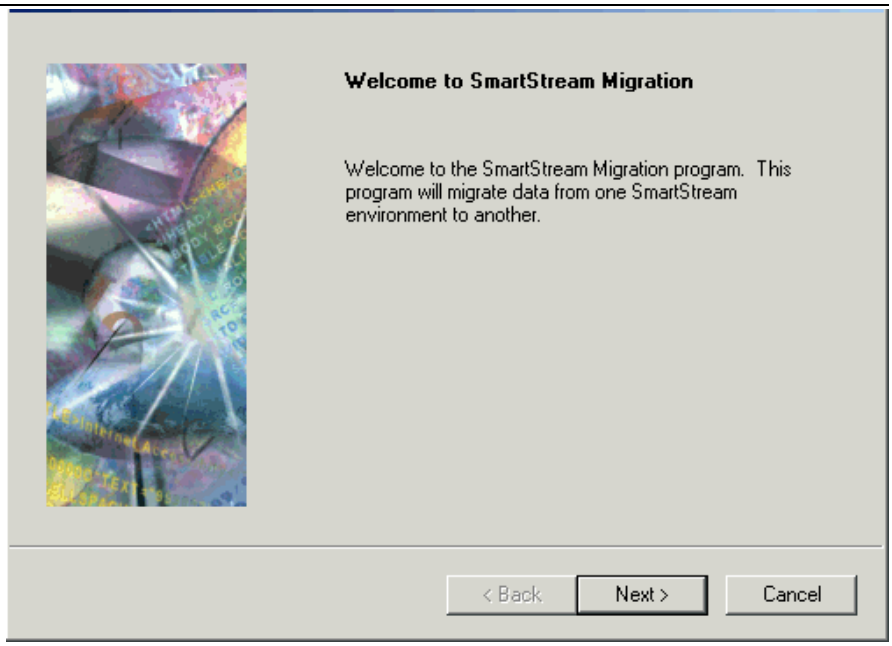
Step	Action
13	 Review your selections and click ▪ **Back** to change settings ▪ **Next** to begin importing data into the new environment. **Result:** The Migration Stage Complete window appears when processing is complete.
14	 Click Exit.

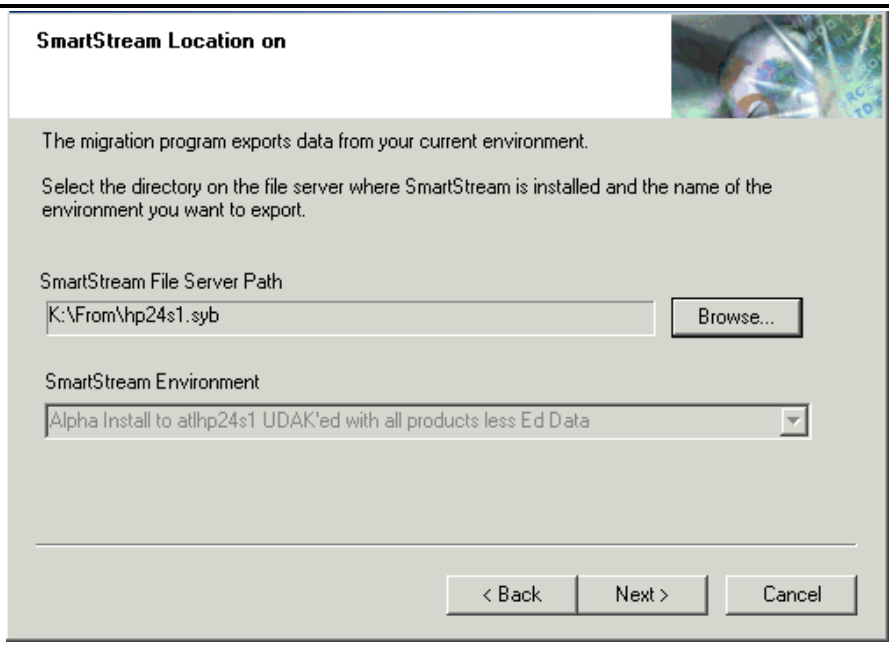
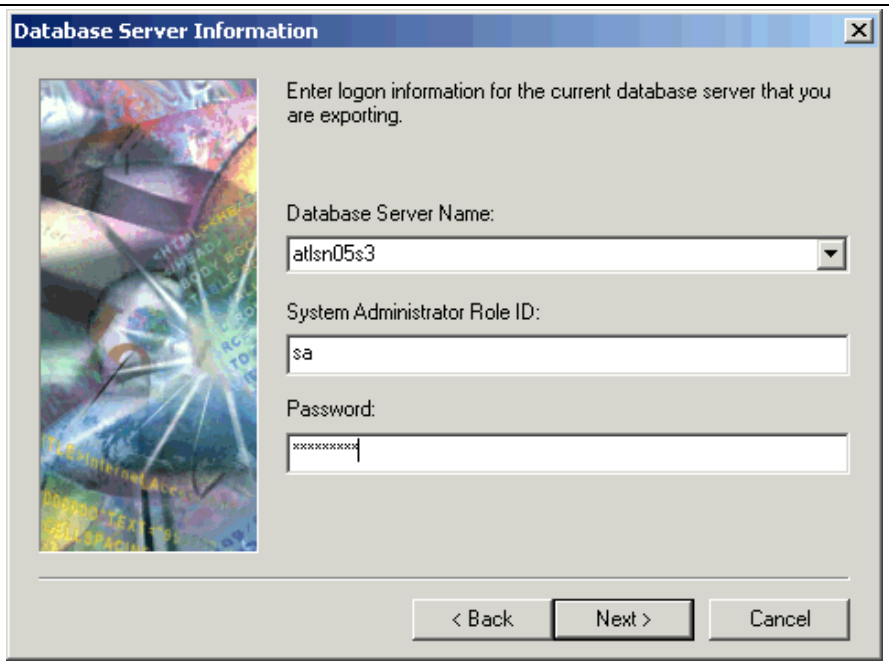
UNIX

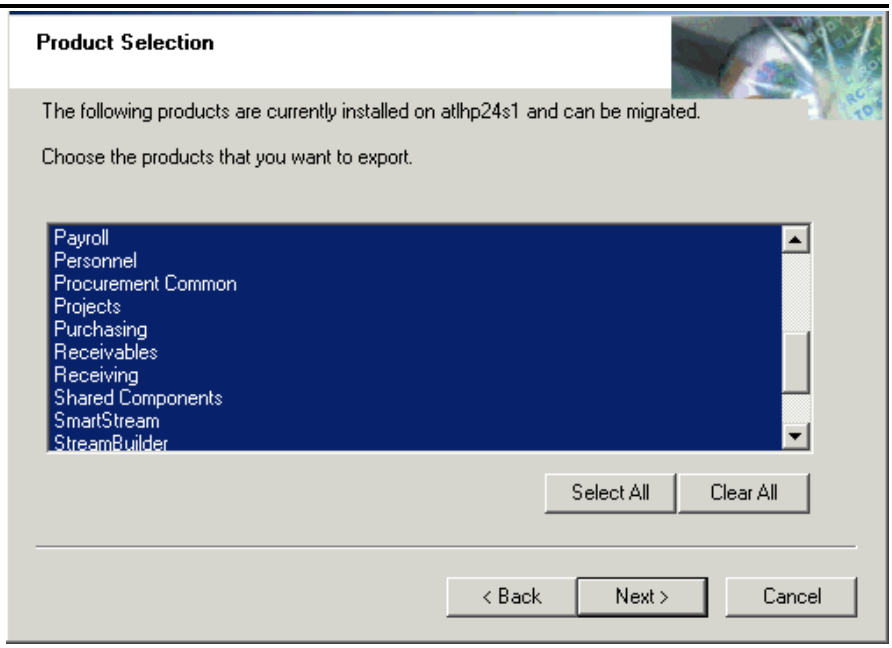
Complete the following procedure to run the migration process in a UNIX environment.

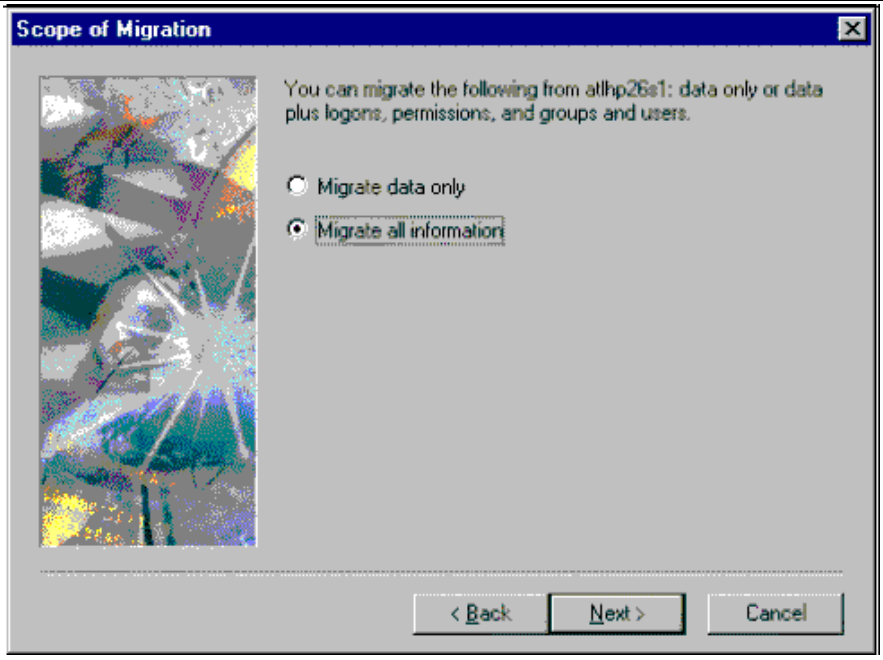
Prerequisites

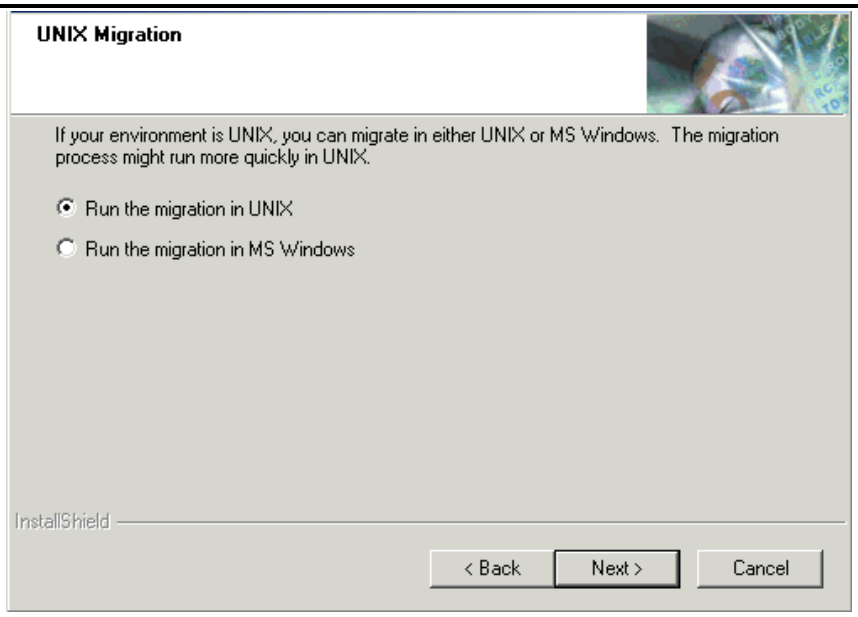
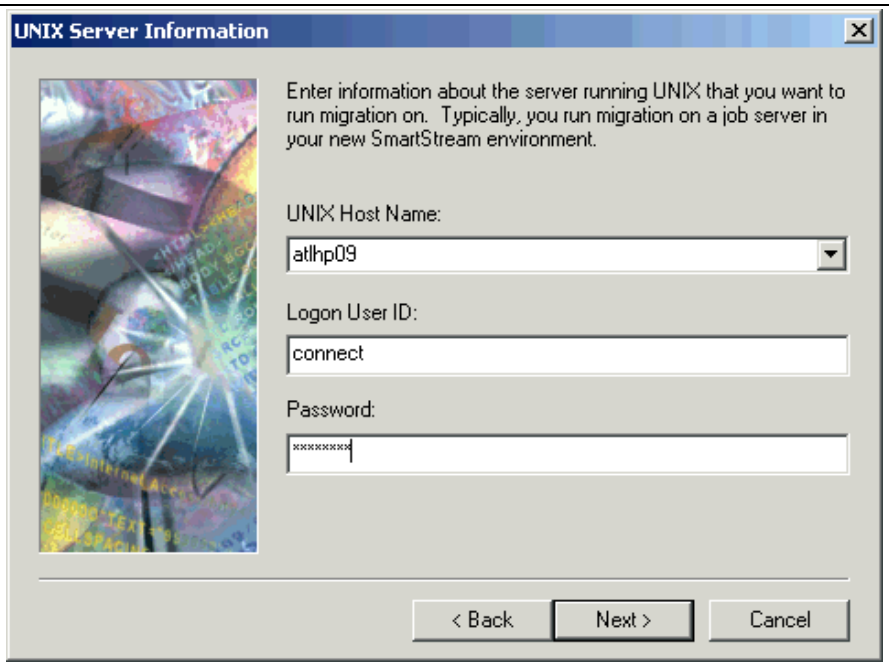
- ☐ Ensure that 6.5 SmartStream Job Server is installed. For installation instructions, see Task 14, Installing the Job Server.
- ☐ If you have not done so, set up workstation-to-UNIX connectivity for Job Server.

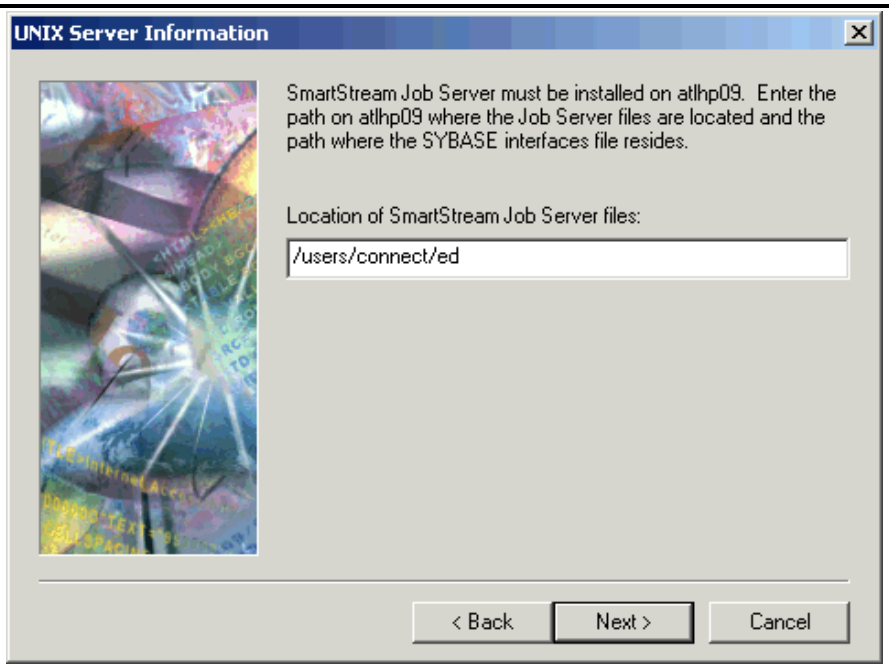
Step	Action
1	Run **setup.exe** from the **dbms\smartmig** directory on your SmartStream file server.
2	 Click Next. **Note:** The Migration program exports data the first time you run setup.exe. **Result:** The SmartStream Location on window appears.

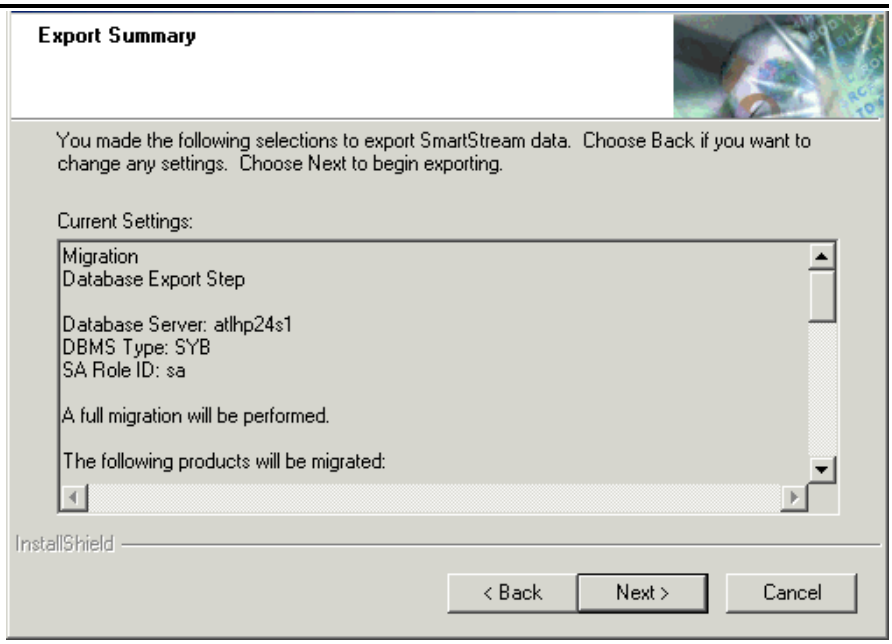
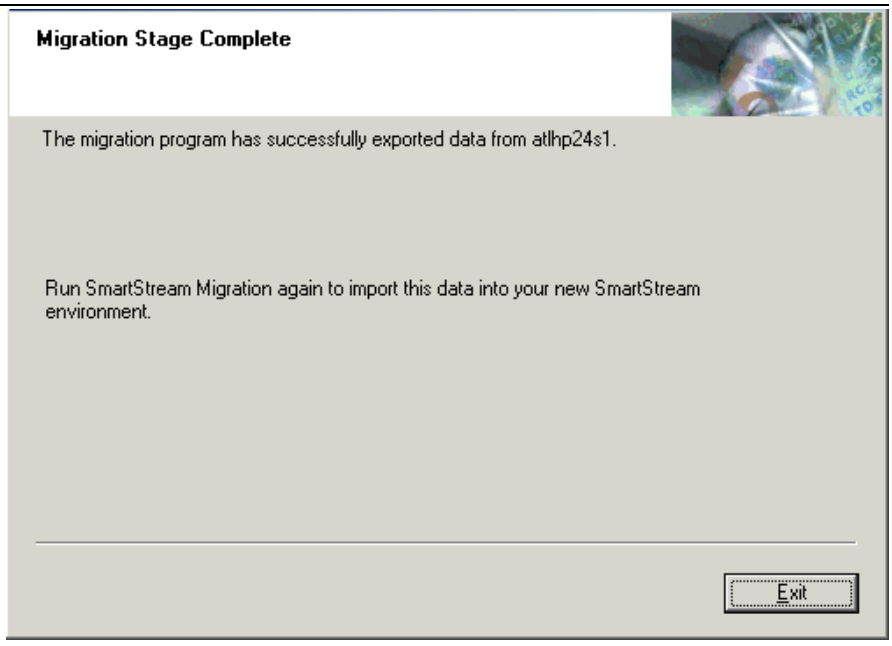
Step	Action
3	 Use Browse to find the directory that contains the dbsinst.ini file in the SmartStream environment that you are exporting data from, select the environment to export, and click Next. **Result:** The Database Server Information window appears.
4	 Enter the logon information for the database server from which you are exporting data and click Next. **Result:** The Product Selection window appears.

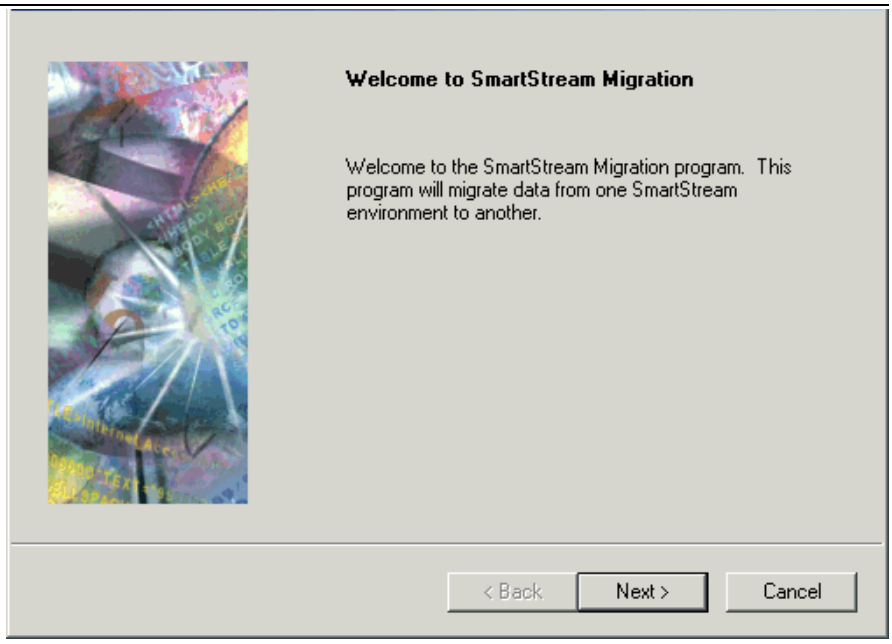
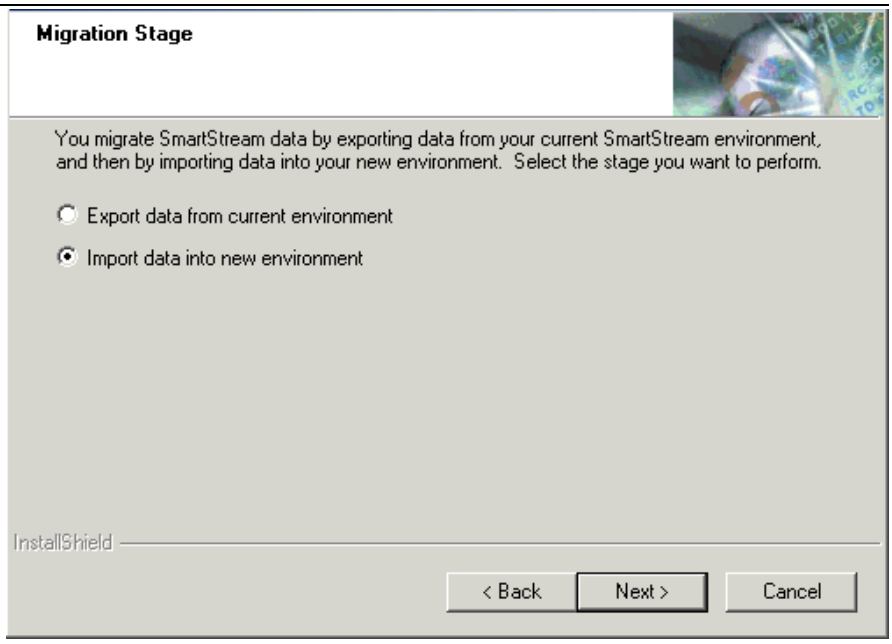
Step	Action
5	 Select the products whose data you want to export and click Next. **Note:** The SmartStream platform is listed as **SmartStream** in the list of available products. **Result:** The Scope of Migration window appears.

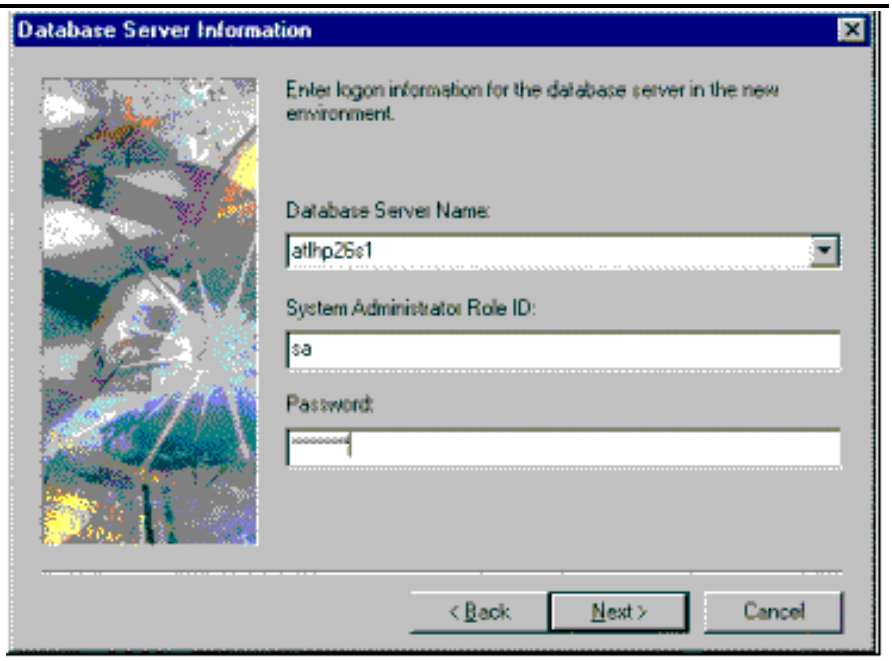
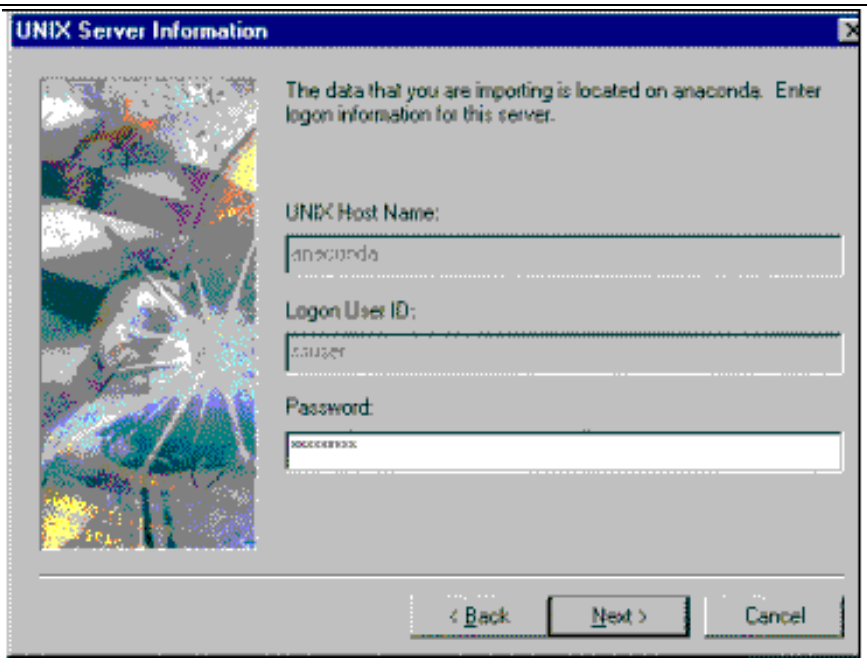
Step	Action
6	 If you are migrating from 6.5 to another 6.5 environment, you can choose to migrate data only or data with logon information, permissions, groups, and users. Make a selection and click Next. **Result:** The UNIX Migration window appears.

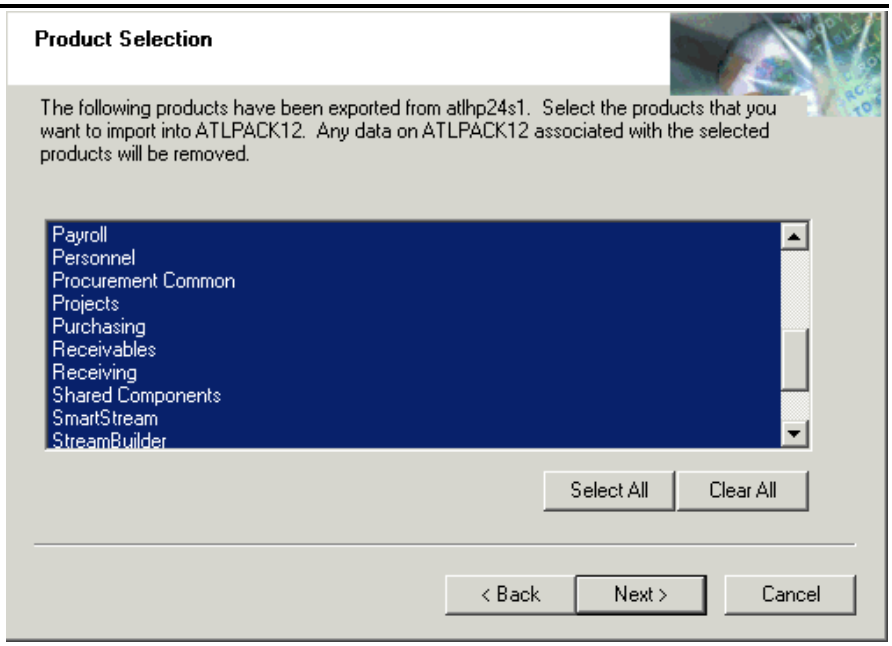
Step	Action
7	 If the environment you are exporting data from and the environment you are importing data to are both Sybase environments, you can choose to run the migration on a UNIX host where SmartStream 6.5 Job Server has been installed. Click **Run the migration in UNIX** and click Next. **Result:** The UNIX Server Information window appears.
8	 Enter logon information for the host where Job Server is installed. **Result:** The UNIX Server Information appears with fields for more information.

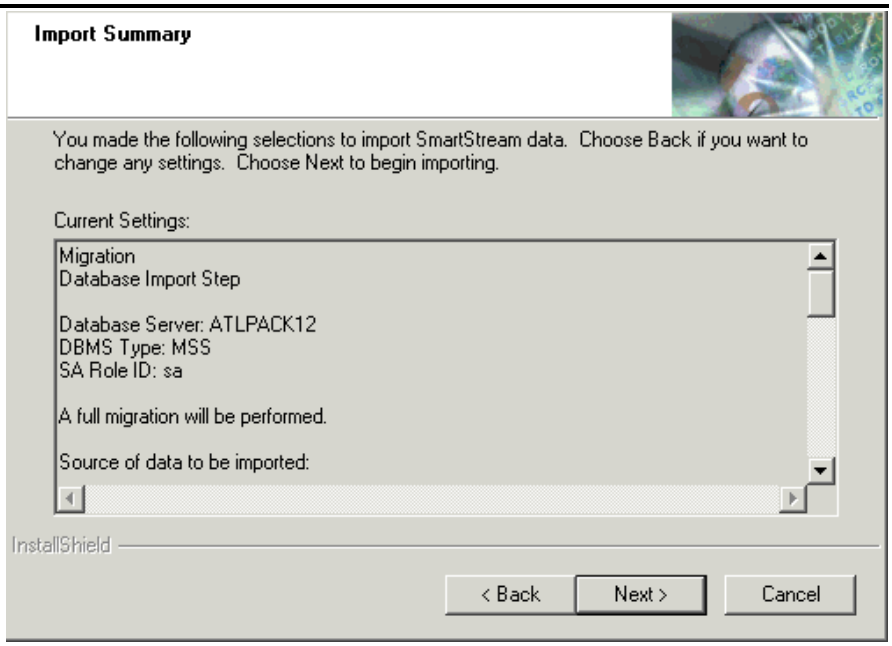
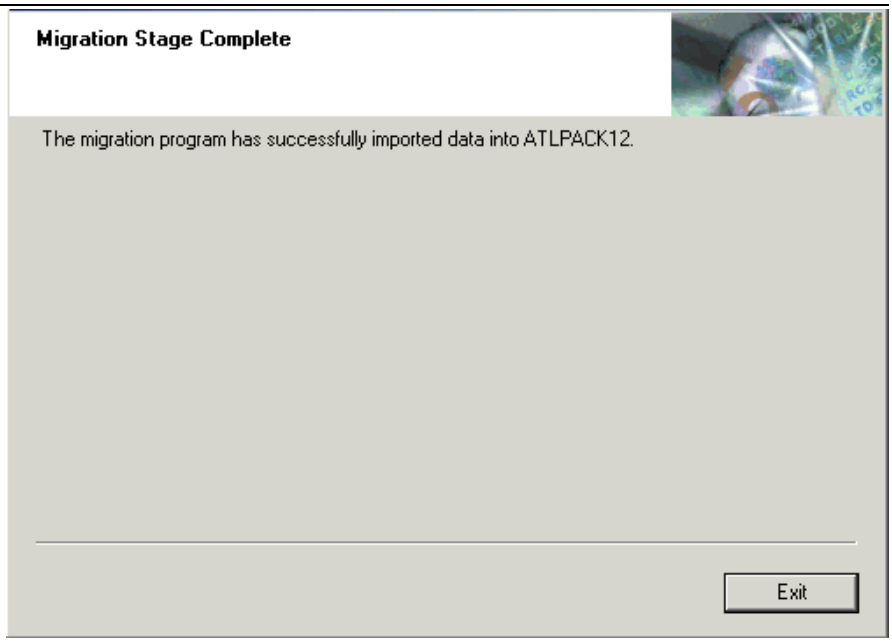
Step	Action
9	 Enter the directory where Job Server is installed, the directory where the Sybase interface files are installed, and your operating system, and then click Next. **Result:** The Export Summary window appears.

Step	Action
10	 Review your selections and click ▪ **Back** to change settings ▪ **Next** to begin exporting data. **Result:** The Migration Stage Complete window appears when processing is complete.
11	 Click Exit.

Step	Action
12	Run **setup.exe** again to **import** data into the new environment.
13	 Click Next. **Result:** The Migration Stage window appears.
14	 Select **Import data into new environment** and click Next. **Result:** The Database Server Information window appears.

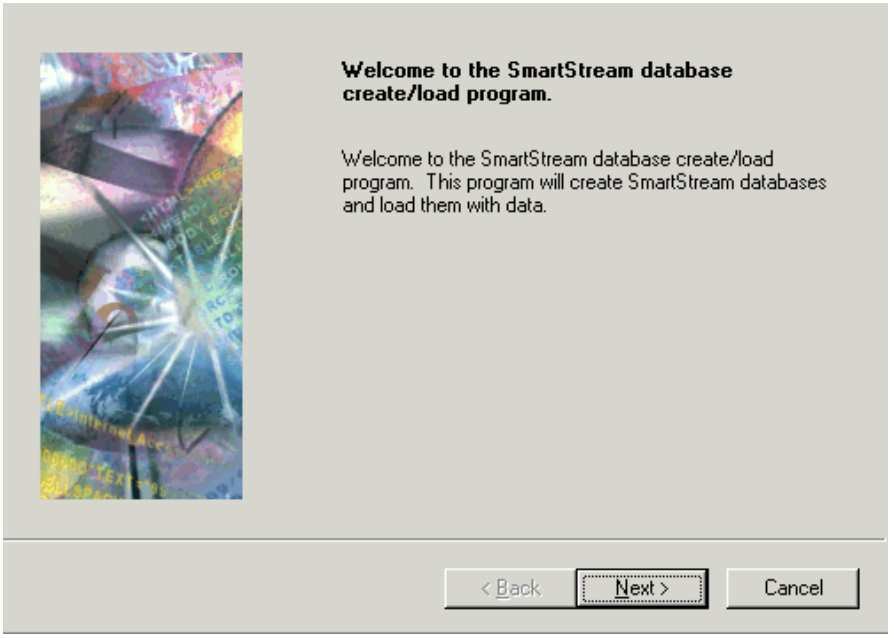
Step	Action
15	 Enter the logon information for the database server that you are importing data into and click Next. **Result:** The UNIX Server Information window appears.
16	 Enter logon information for the UNIX host where the data you are importing resides and click Next. **Result:** The Product Selection window appears.

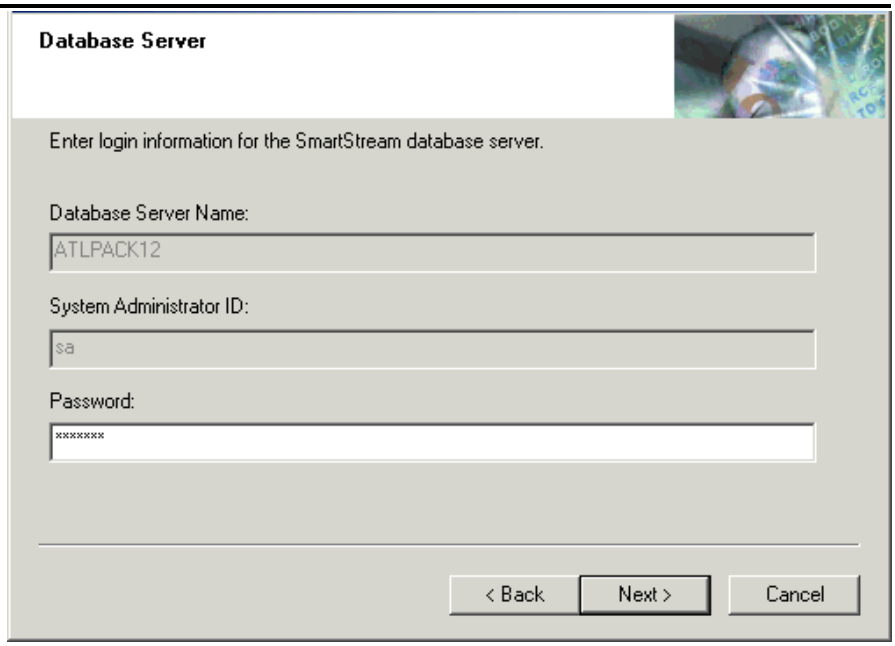
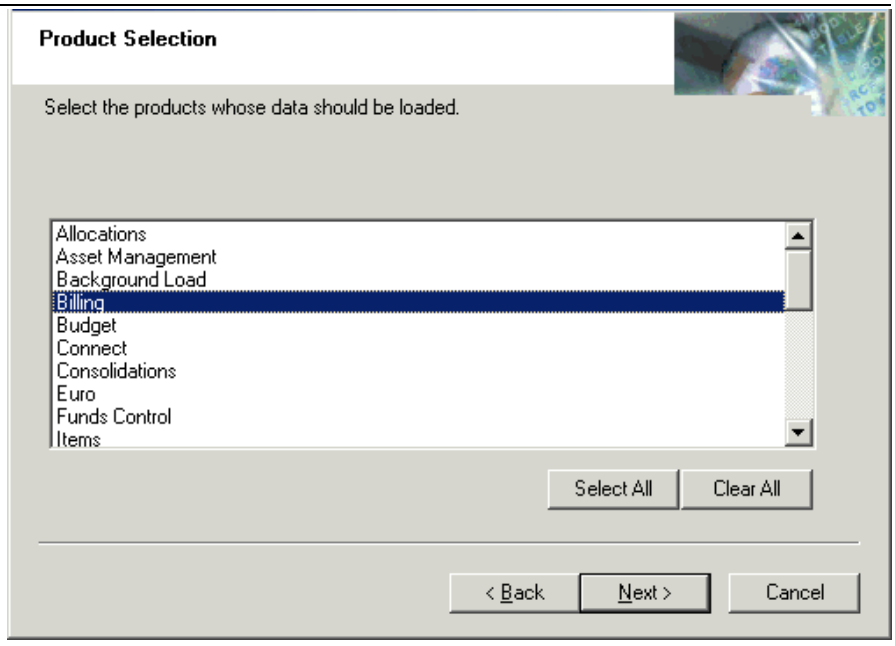
Step	Action
17	 Select the products whose data you want to import and click Next. **Result:** The Import Summary window appears.

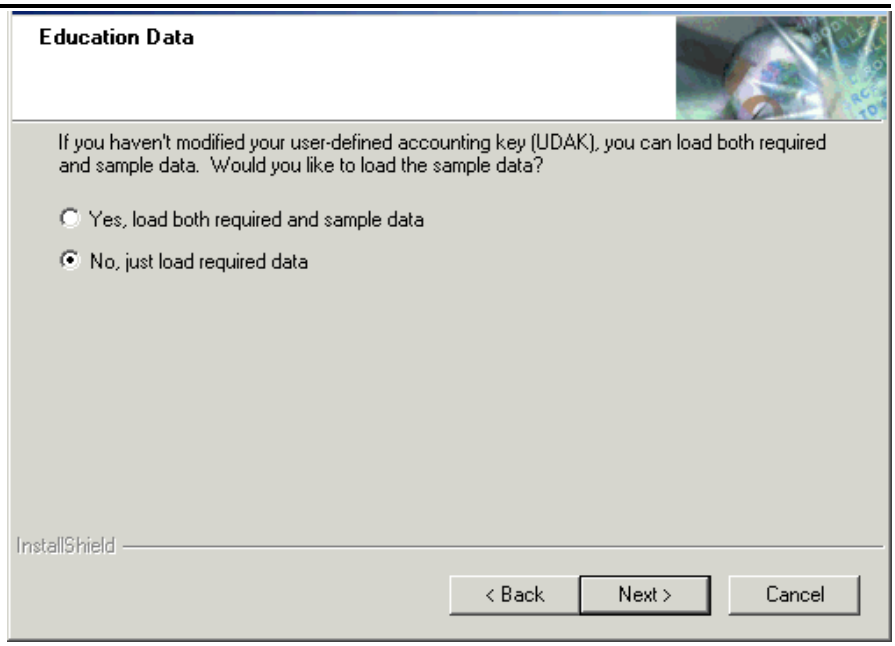
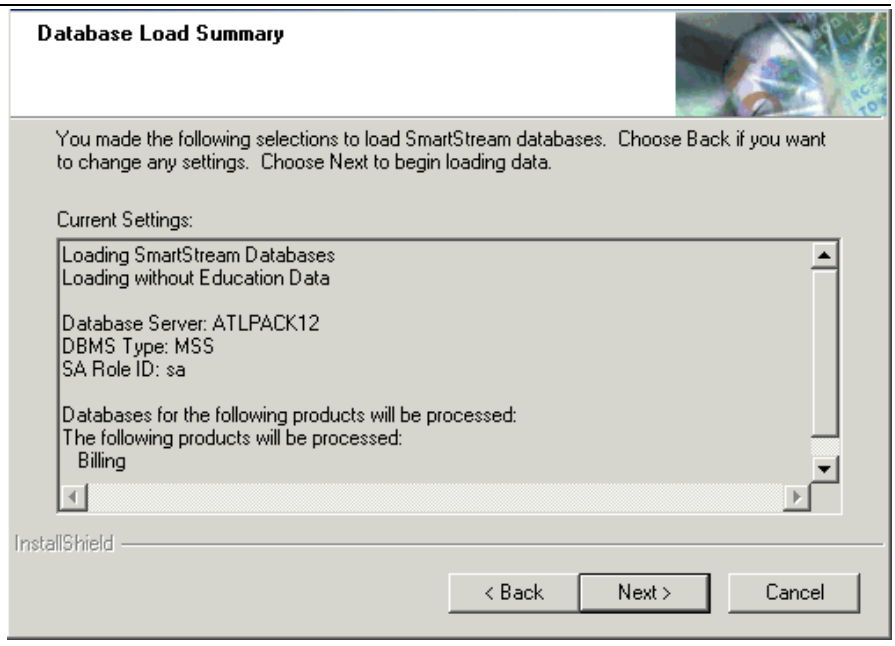
Step	Action
18	 Review your selections and click ▪ **Back** to change settings ▪ **Next** to begin importing data into the new environment. **Result:** The Migration Stage Complete window appears when processing is complete.
19	 Click Exit.

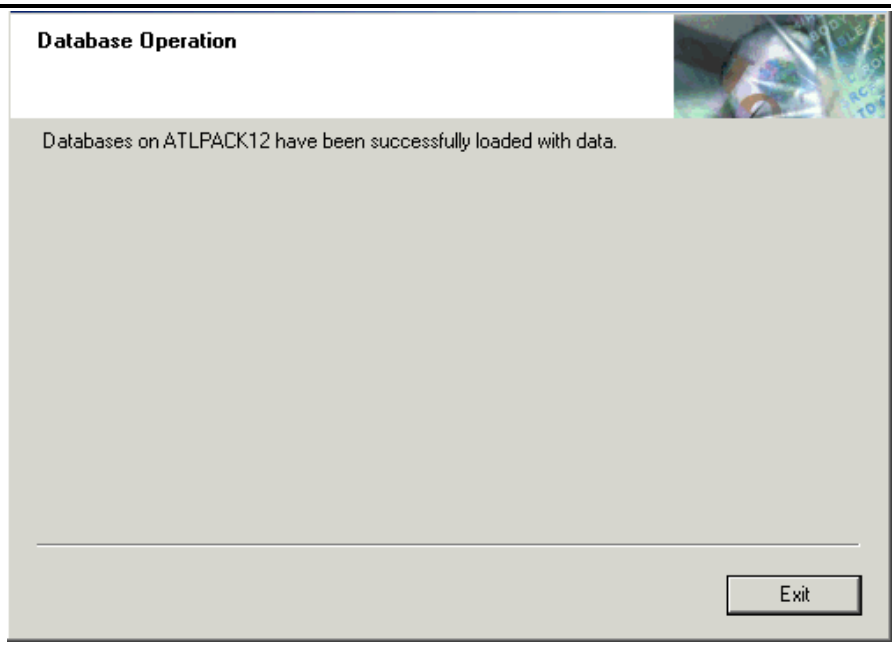
Reloading Databases for Newly Licensed Products

After you run the Migration **Import** program, you must run the Database **Load** program again for newly licensed products if you initially loaded the databases for these products with required data and not sample data.

Step	Action
1	Run **setup.exe** from the \createId directory on the file server image.
2	 Click Next. **Result:** Database Server window appears.

Step	Action
3	 Enter the password for the Database server **Result:** The Product Selection window appears.
4	 Review the products selected for installation and clear the products you do not want to install. SmartStream Billing is a newly licensed product for release 6.5.02. **Result:** The Education Data window appears.

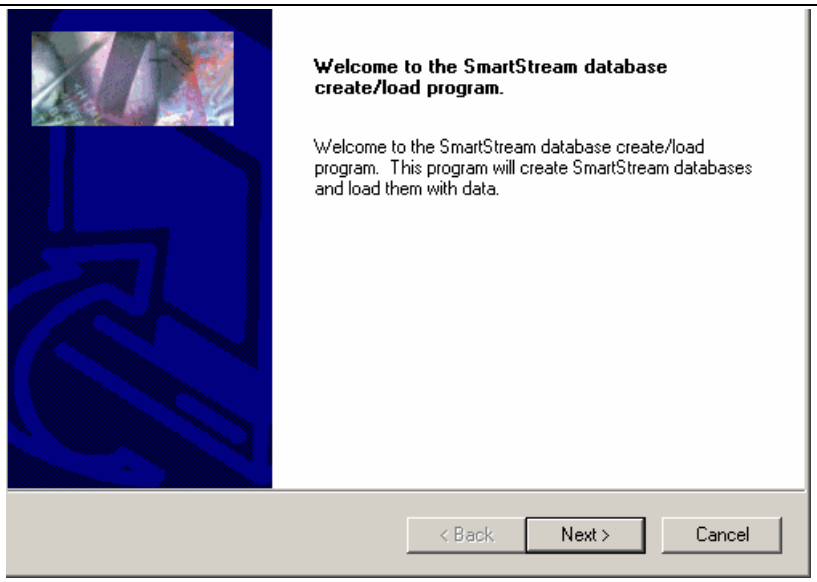
Step	Action
5	 You must select **No, just load required data**. **Result:** The Database Load Summary window appears.
6	 Review your selections and click Next to begin loading the databases without sample, education data.

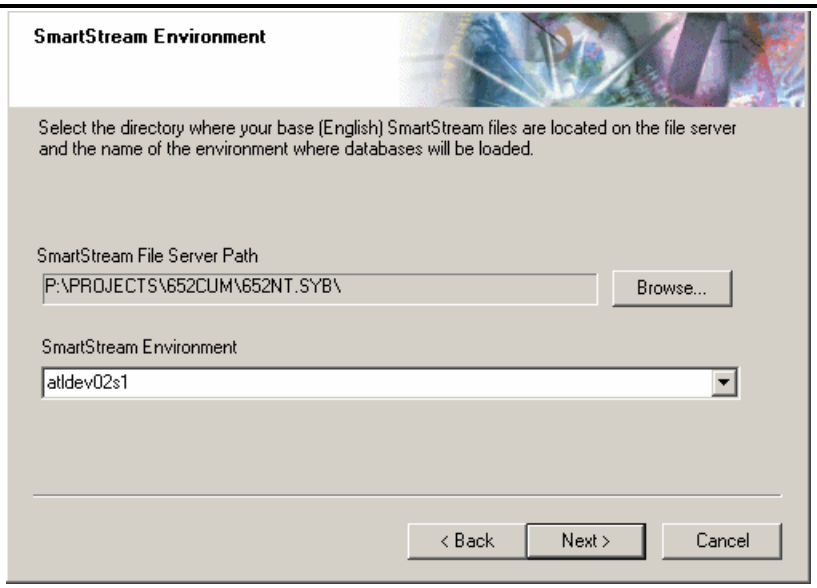
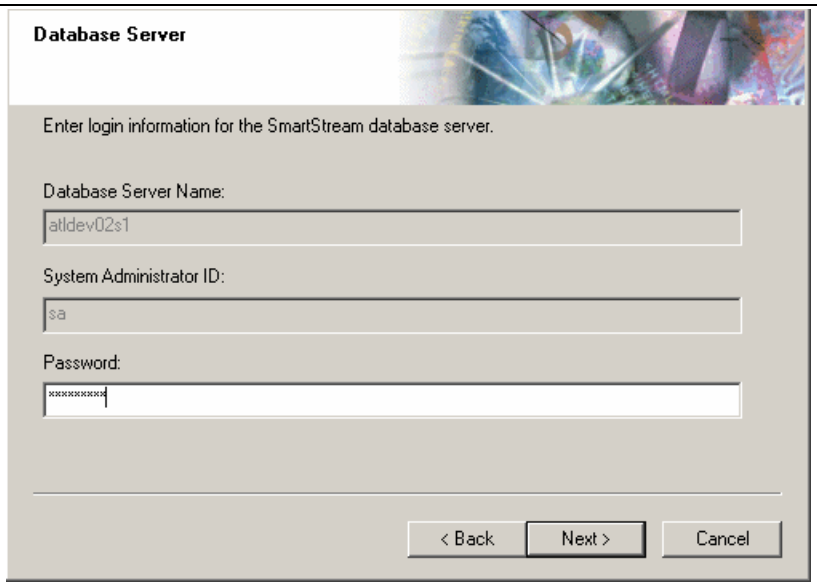
Step	Action
7	 Click Exit when the Load program is complete.

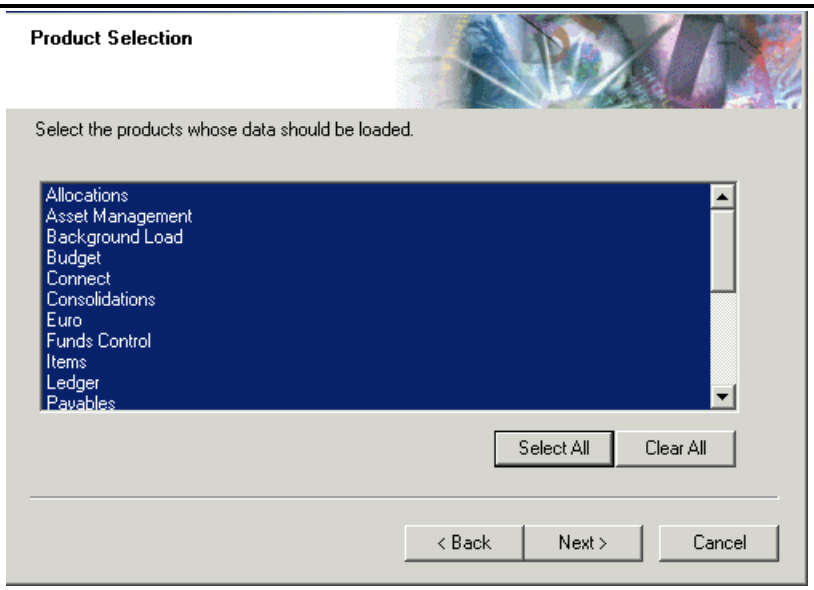
Reloading SmartStream Language Kits

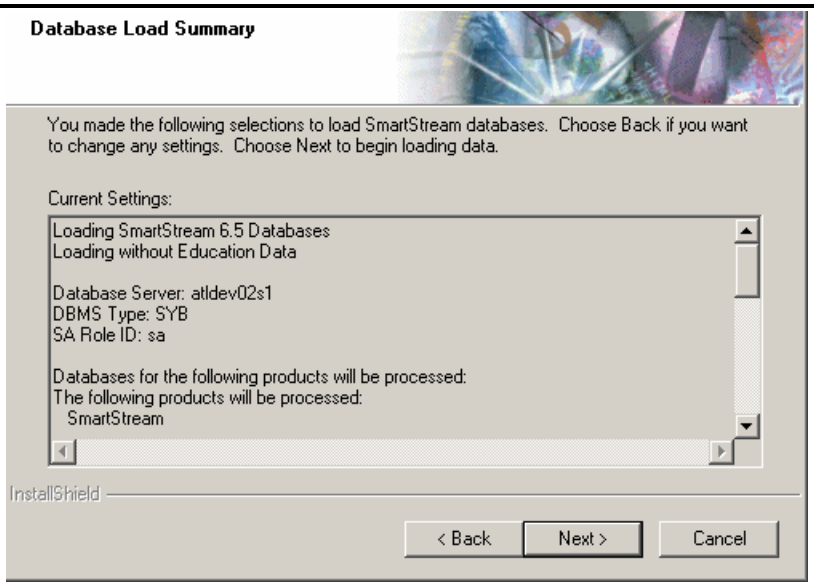
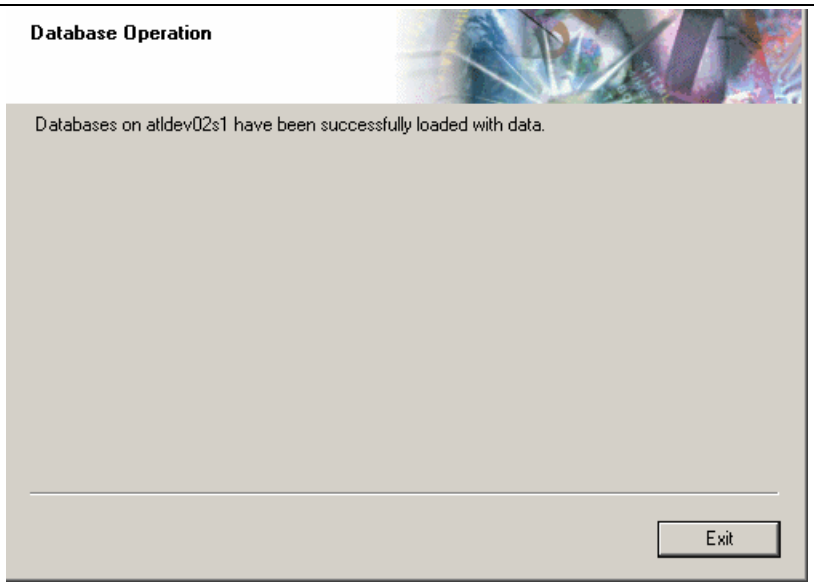
If you have licensed language kits for SmartStream 6.5, complete the following steps to reload each one.

Language versions of platform data (for example, error messages, file open parameters) are not automatically migrated. The migration process truncates all platform data and migrates it from the previous version to SmartStream 6.5. You must reload the language kits to reinstall language-specific platform data.

Step	Action
1	Run setup.exe from the createld directory at the root of the language kit file server image. **Result:** The Welcome to the SmartStream database create/load program window appears.
2	 Click Next. **Result:** The SmartStream Environment window appears.

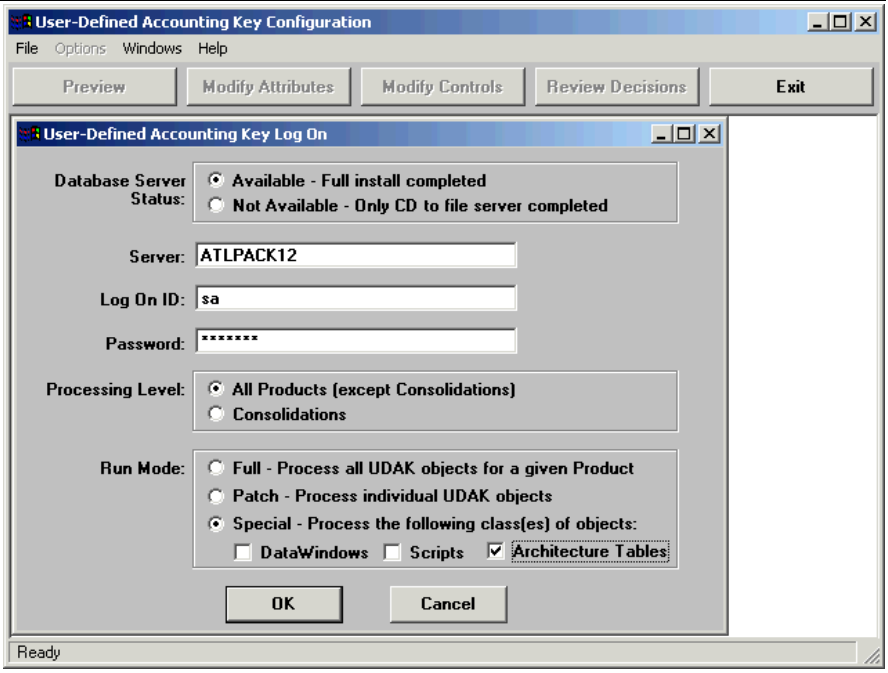
Step	Action
3	 Enter the directory where SmartStream is installed on the file server, select an environment or type the name of a new environment that you want to create. **Result:** The Database Server window appears.
4	 Enter information about the server where you want to load the language kit data and click Next. **Result:** The Product Selection window appears.

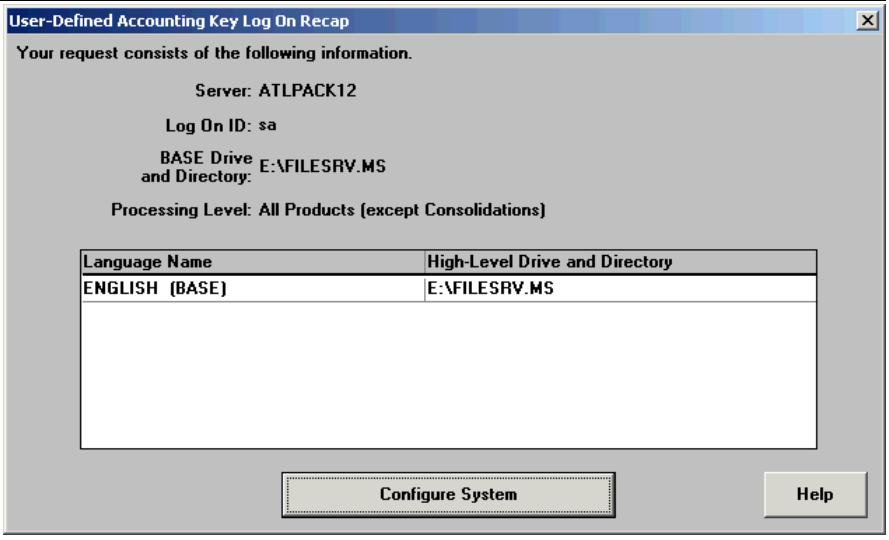
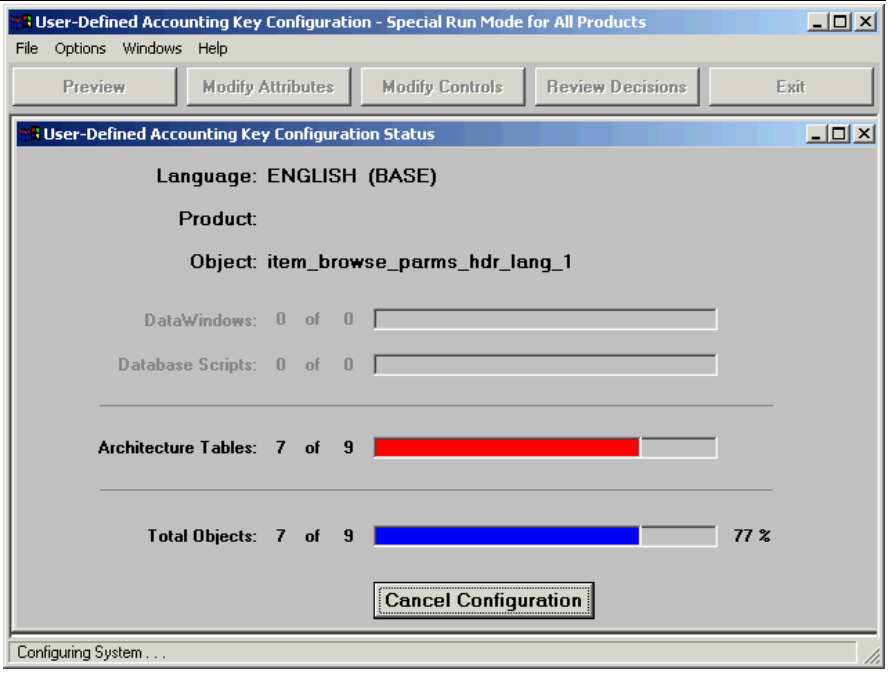
Step	Action
5	 Use the buttons to choose the products that you want to install and click Next. **Result:** The Database Load Summary window appears.

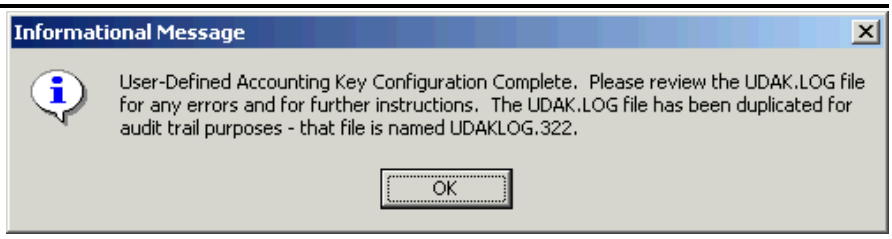
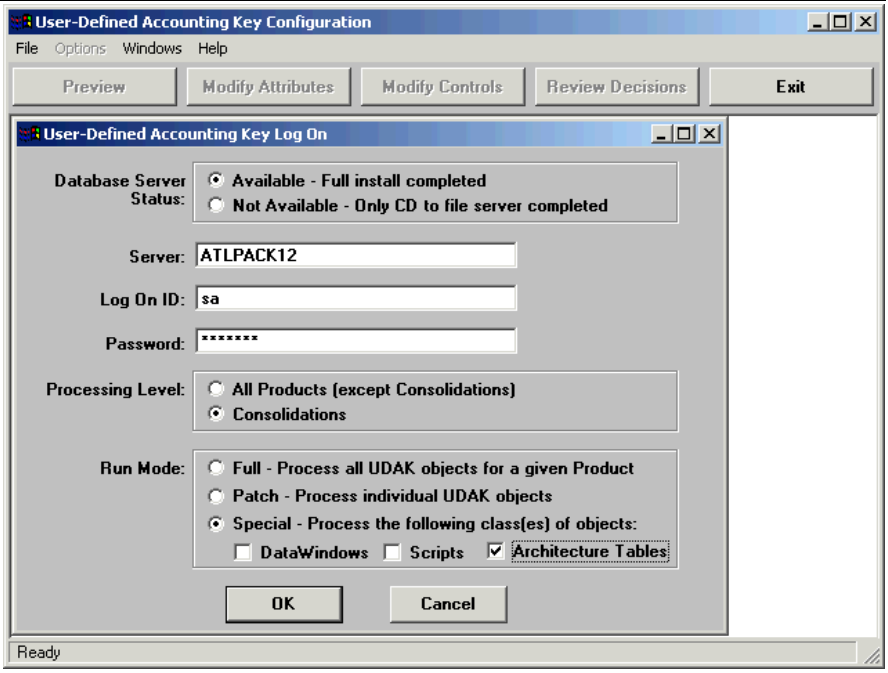
Step	Action
6	 Review the selections you made. If you need to make changes, click Back. If you want to continue, click Next then Finish. **Result:** The setup program begins loading data. If errors occur during processing, the Database Error Review window appears where you can ▪ Correct the errors using the list of files and the Edit button. Then click Retry. ▪ Click Cancel to end the process without making the requested changes. If no errors occur, the Database Operations window appears
7	 Click Exit.

Processing the Architecture Tables in Special Mode

After you run the Migration Import process, you must also update the architecture tables to reflect the new column names and lengths you defined if you tailored your accounting key.

Step	Action
1	Run **udak.exe** from the **dbms\udak** directory on your SmartStream file server. **Result:** The User-Defined Accounting Key Log On window appears.
2	 Select **All Products (except Consolidations)** the first time you run this process, and select **Special** and **Architecture Tables** as the run mode. **Result:** The User-Defined Accounting Key Log On Recap window appears.

Step	Action
3	 Click Configure System to tailor the system tables to reflect your user-defined accounting key. **Result:** The User-Defined Accounting Key Configuration Status window appears.
4	 When processing is complete, an informational message is displayed.

Step	Action
5	 Click OK. **Note:** You can review **UDAK.log** for errors and further instructions.
6	 Run **udak.exe** again for Consolidations. **Note:** You must select **Special** and **Architecture Tables** as the run mode.

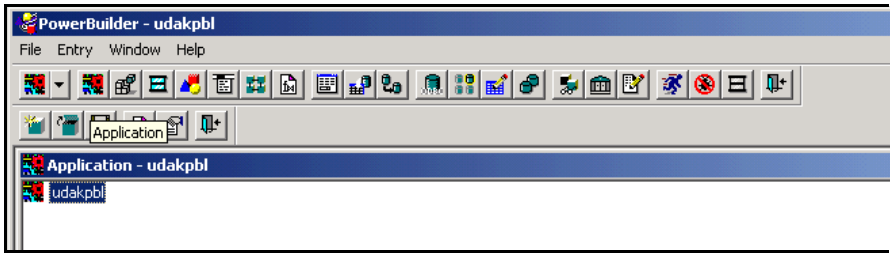
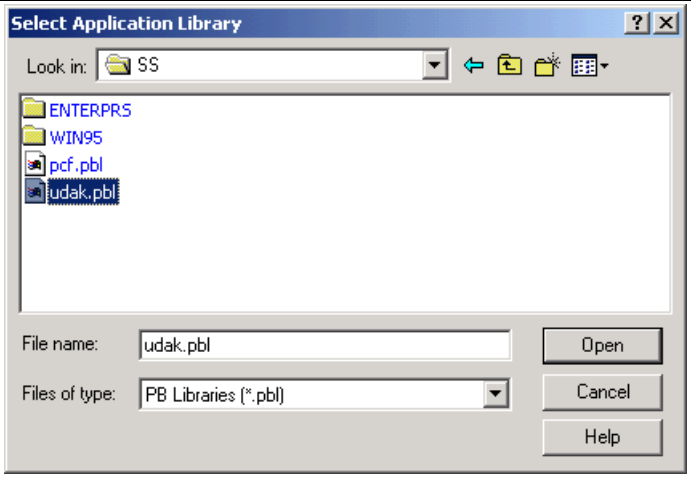
Regenerating the Runtime Library

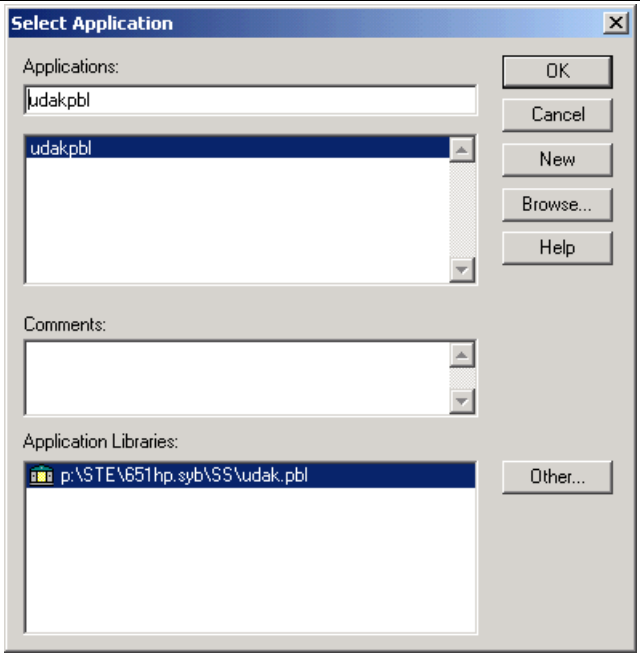
After applying your user-defined accounting key, you must regenerate the runtime library (udak.pbd).

Prerequisite

The current application in Power Builder 5.0.04 must be udakpbl before you can regenerate the runtime library.

To change the application to udakpbl, complete the following steps.

Step	Action
1	 Open PowerBuilder 5.0.04 and click the second Application icon. **Warning:** The first two icons in PowerBuilder are for Application. Be sure to click the **second** Application icon.
2	Select File and click Open. **Result:** The Select Application Library dialog box appears.
3	 Find and select **udak.pbl** in the \ss directory on the file server.
4	Click Open. **Result:** The Select Application dialog box appears.

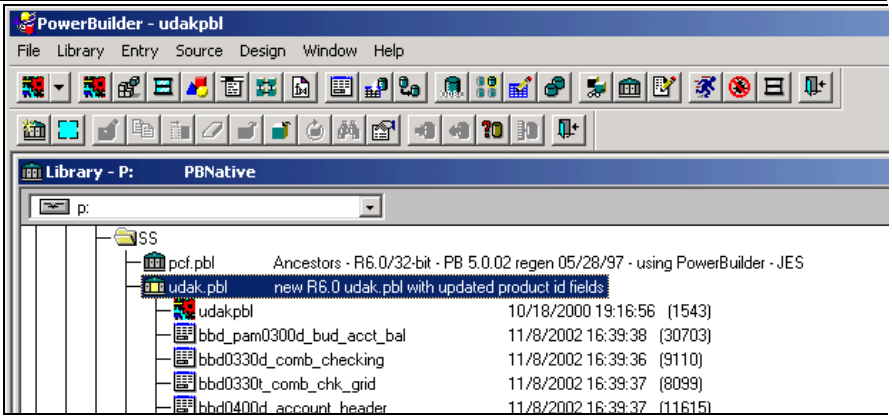
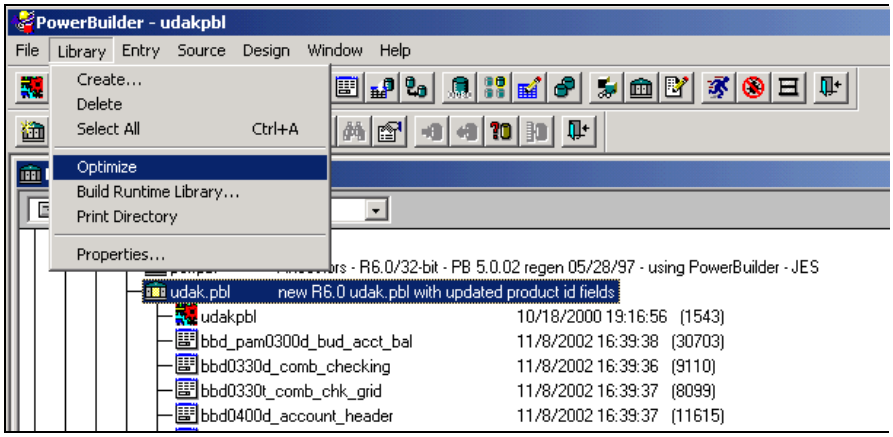
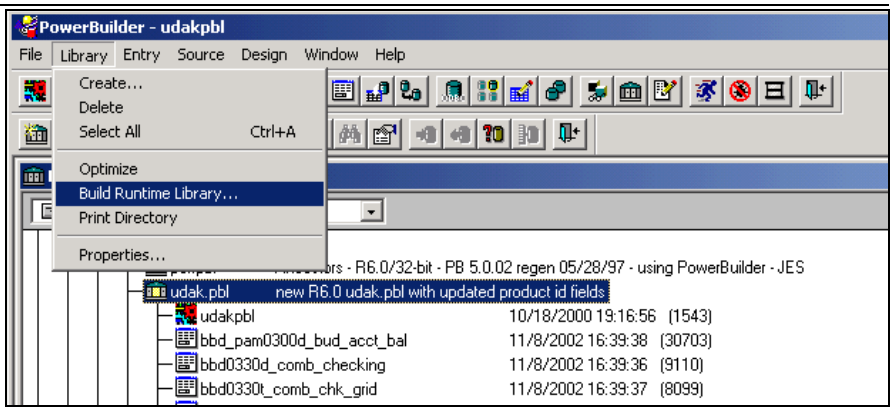
Step	Action
5	 Click OK.

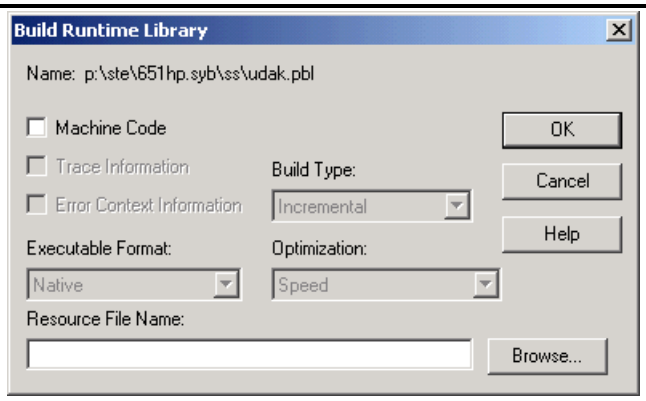
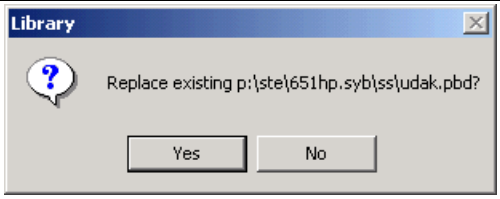
Now that you have changed your application to udakpbl, you can build the runtime library.

Generate the Runtime Library

Warning: Ensure that all painters, except the Library painter, are closed, or PowerBuilder returns the error, PB cannot rebuild while painter is open.

To generate the runtime library, complete the following steps:

Step	Action
1	 Open PowerBuilder 5.0.04, click the Library icon, and verify that your udak.pbl is highlighted.
2	 Select the Library menu and click Optimize.
3	 After the Library has been optimized, select the Library menu again and click Build Runtime Library. **Result:** The Build Runtime Library dialog box appears.

Step	Action
4	 Clear the Machine Code checkbox, leave the Resource File Name field blank, and click Ok. **Result:** The Library dialog box appears.
5	 At the prompt, Replace existing *path*/udak.pbd?, click Yes. **Result:** The Runtime Library (udak.pbd) is built.

Tip

If the Machine Code checkbox is not cleared, PowerBuilder generates udak.dll instead of udak.pbd. Repeat steps 1 through 5 and clear the Machine Code checkbox.

Language Kits

You must perform this process for the udak.pbl in each language kit \ss directory.

Installing the Job Server

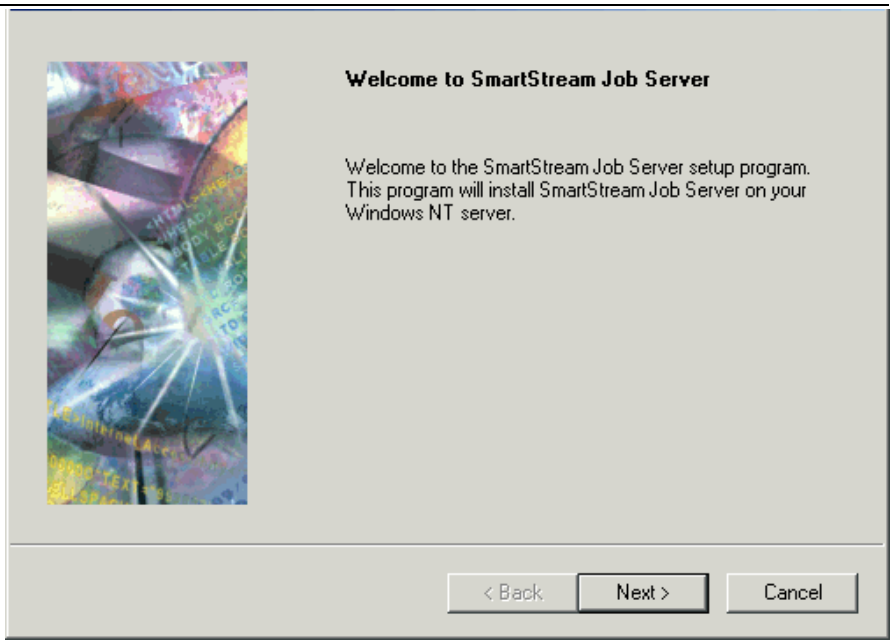
The Windows version of the Job Server installation program installs the Master Scheduler, POLL, and ARPC programs as Windows services. The UNIX versions share a large amount of code with the Windows version, so the look and feel of the user interface is very similar for both versions.

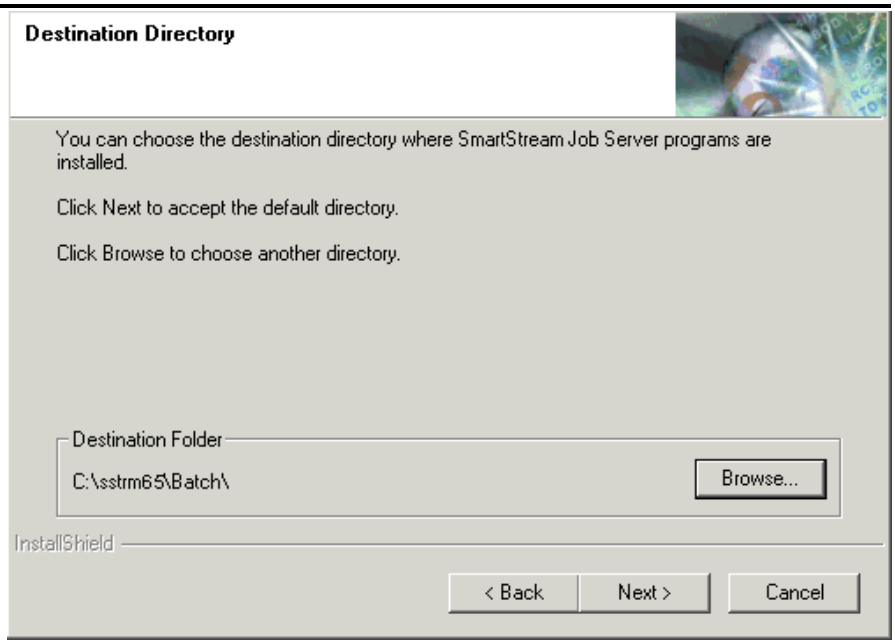
The Windows version of Job Server is always delivered to the file server because dbsbulkexe is available only under Windows.

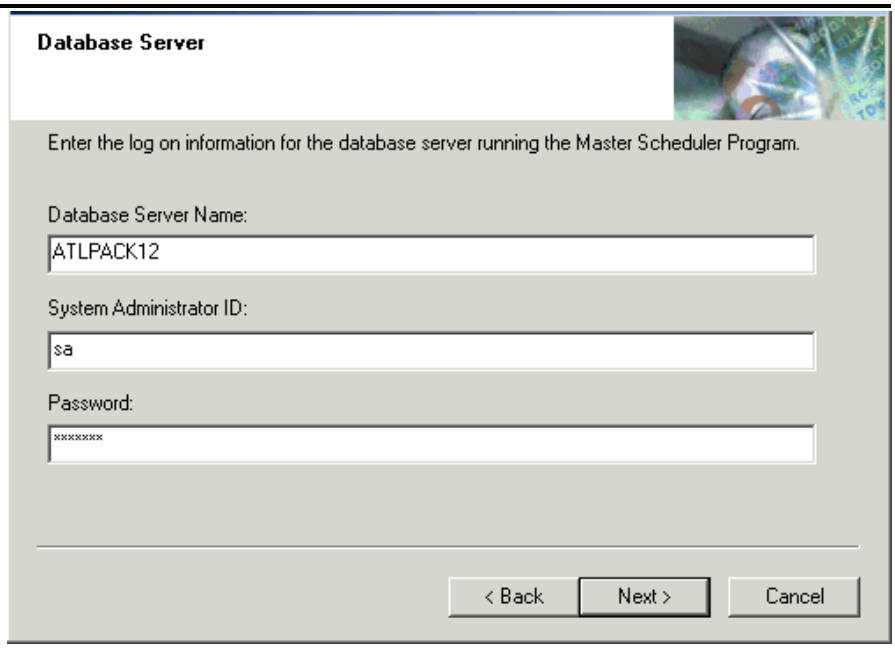
Windows

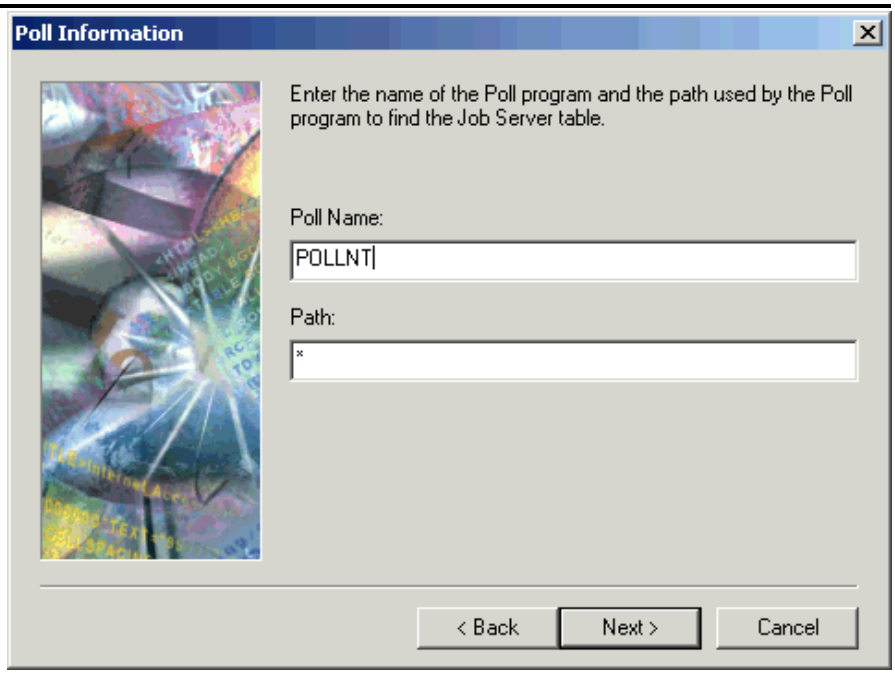
If you are installing the Windows version, you must run the setup program from the machine where you want to install the Job Server, and you must log on as a user with administrator authority.

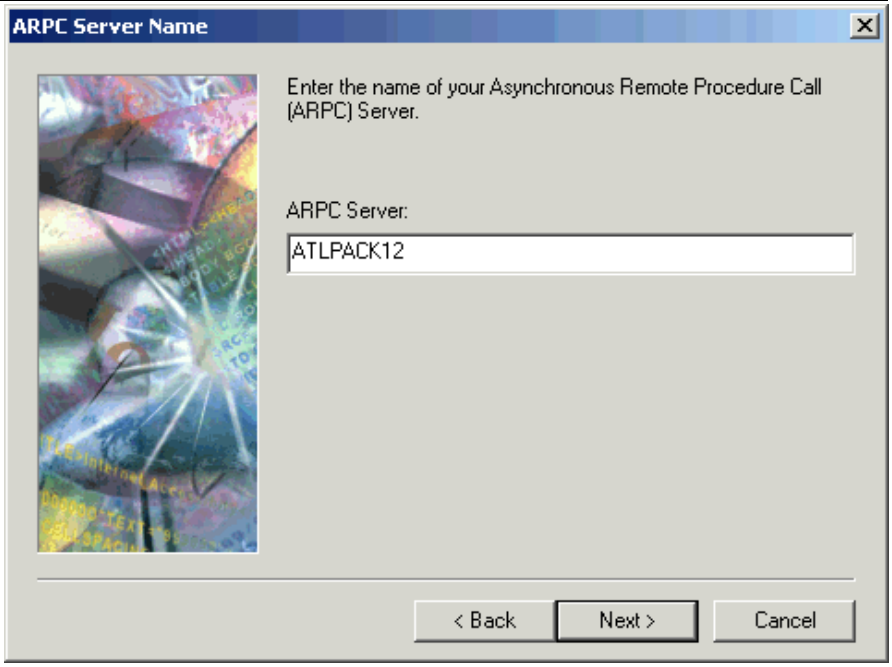
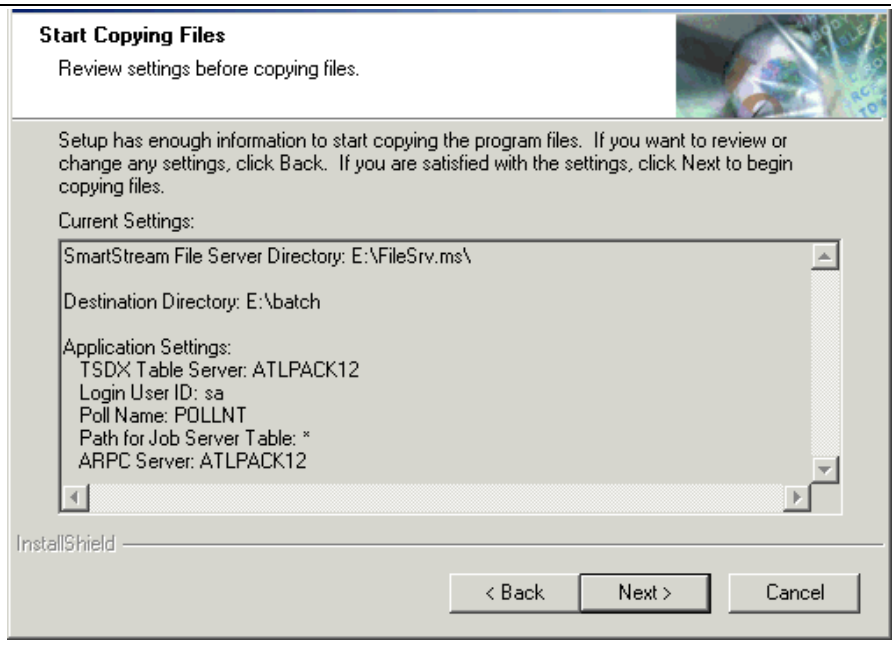
To install this version of the Job Scheduler, complete the following steps:

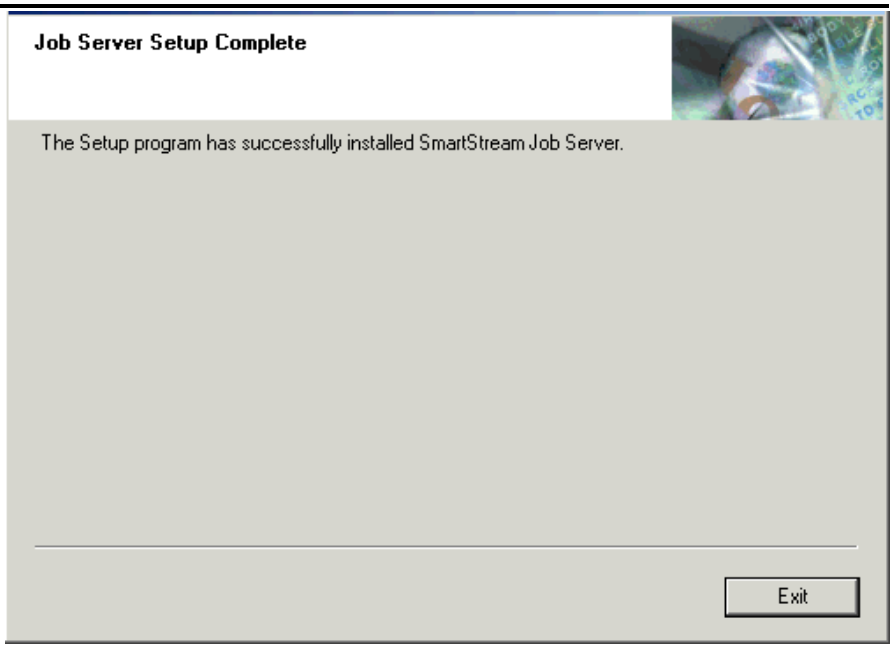
Step	Action
1	Run **setup.exe** from the batch*os* directory, where *os* is the operating system of the Job Server you want to install. **Result:** The Welcome to SmartStream Job Server window appears.
2	 Click Next. **Result:** The Destination Directory window appears.

Step	Action
3	 Use Browse to find the directory where you want to install the Job Server and click Next. **Result:** The Database Server window appears.

Step	Action
4	 Enter the name and logon information for the database server and click Next. **Note:** Database server information is stored in the dbsched.ini file. You can change this information later by editing the dbsched.ini file or running pscc0030.exe. **Result:** The Poll Information window appears.

Step	Action
5	 Enter the Poll information and click Next. **Note:** Poll information is also stored in the dbsched.ini file. **Result:** The ARPC Server Name window appears.

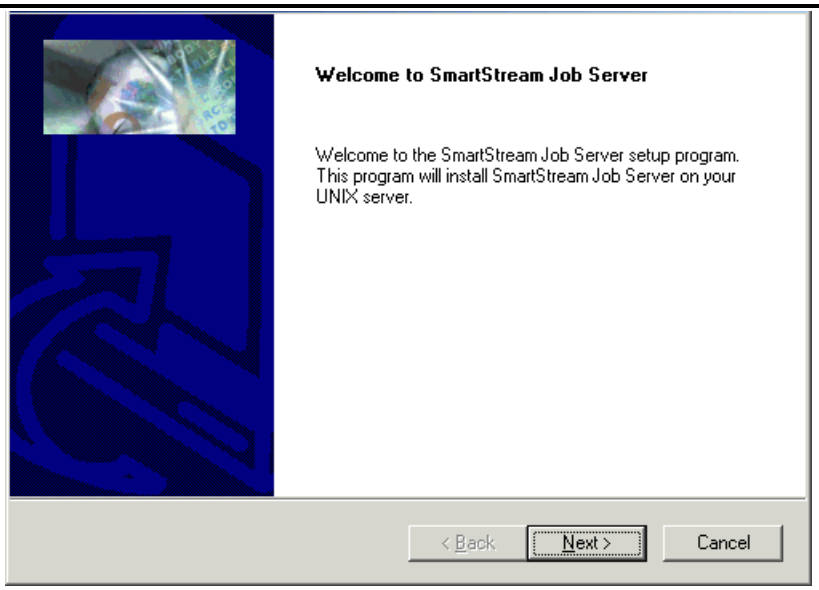
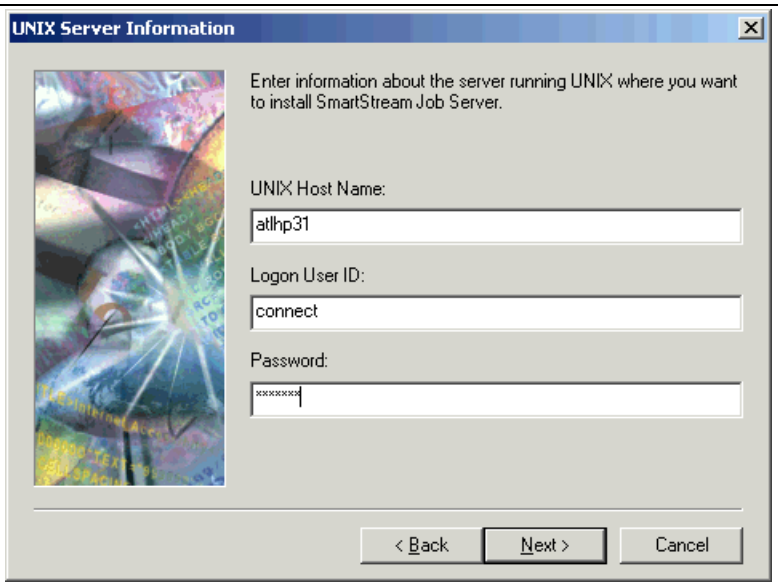
Step	Action
6	 Enter the name of the ARPC server and click Next. **Note:** ARPC information is also stored in the dbsched.ini file. **Result:** The Start Copying Files window appears.
7	 Review your settings and click Next **Result:** When the Job Server installation finishes, the Job Server Setup Complete window appears.

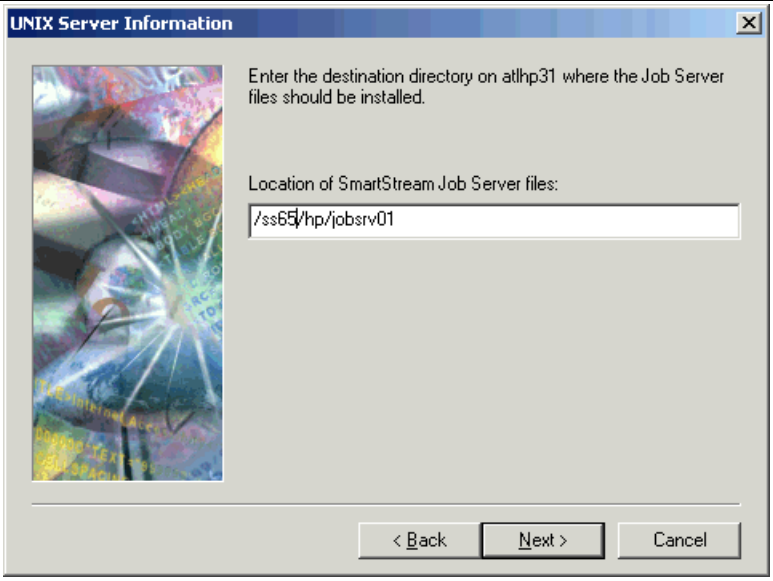
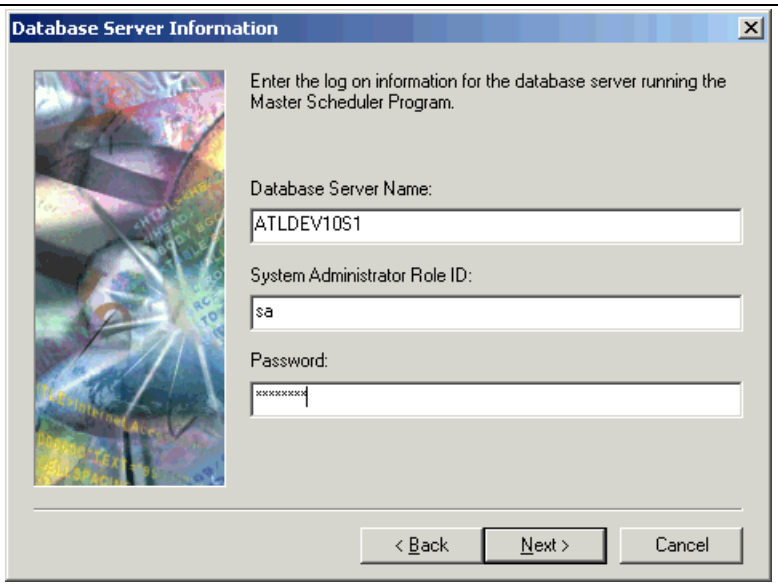
Step	Action
8	 Click Exit.

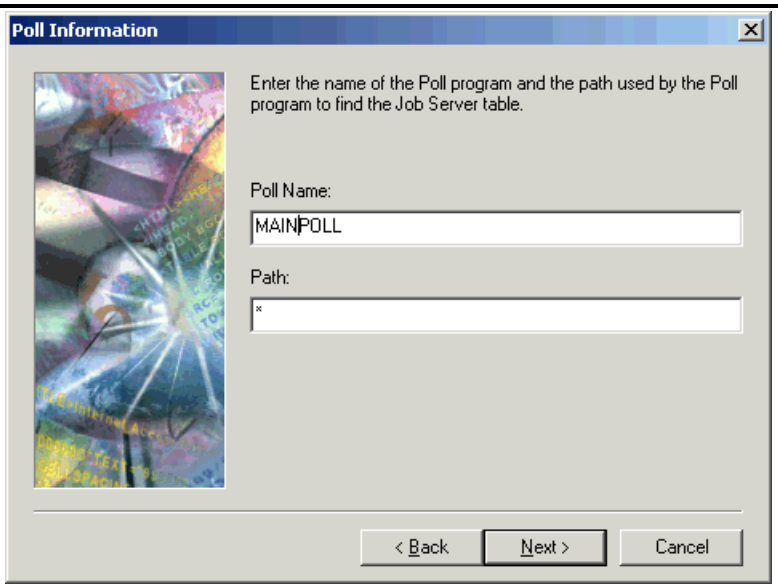
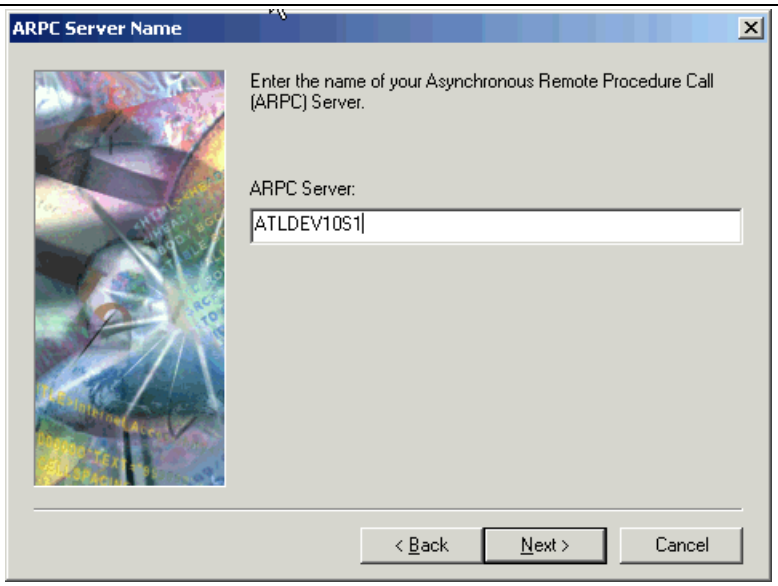
UNIX

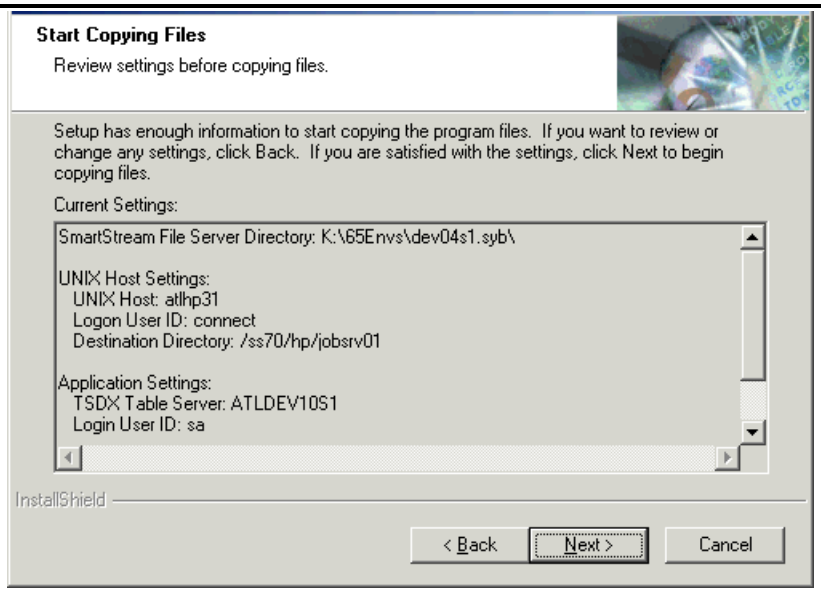
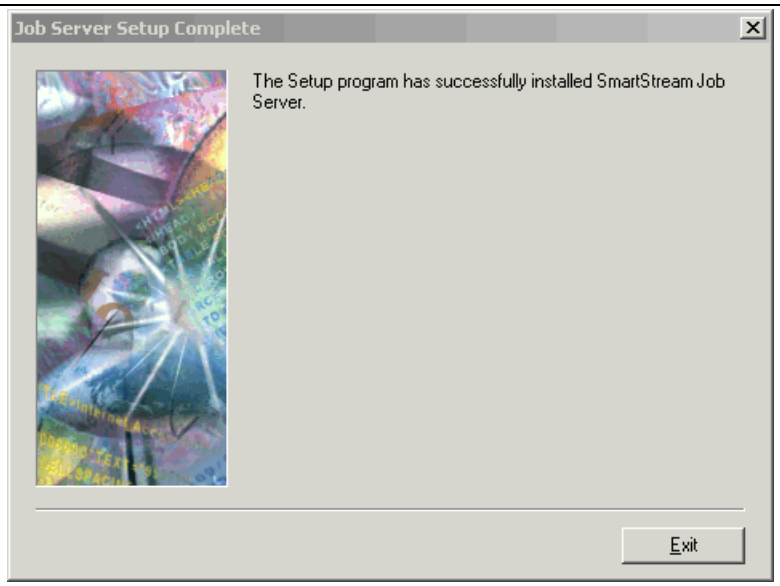
To install one of the UNIX versions of the Job Scheduler, complete these steps:

Step	Action
1	Run **setup.exe** from the batch*os* directory, where *os* is the operating system of the Job Server you want to install. **Result:** The Welcome to SmartStream Job Server window appears.

Step	Action
2	 Click Next. **Result:** The UNIX Server Information window appears.
3	 Enter logon information for the UNIX host where you want to install the Job Server and click Next.

Step	Action
4	 Enter the directory where you want to install the Job Server and click Next. **Note:** This directory is usually relative to the home directory of the user specified in Step 3. **Result:** The Database Server Information window appears.
5	 Enter the name and logon information for the database server and click Next. **Note:** Database server information is stored in the dbsched.ini file. You can change this information later by editing the dbsched.ini file or running pscc0030.exe. **Result:** The Poll Information window appears.

Step	Action
6	 Enter the Poll information and click Next. **Note:** Poll information is also stored in the dbsched.ini file. **Result:** The ARPC Server Name window appears.
7	 Enter the name of the ARPC server and click Next. **Note:** ARPC information is also stored in the dbsched.ini file. **Result:** The Start Copying Files window appears.

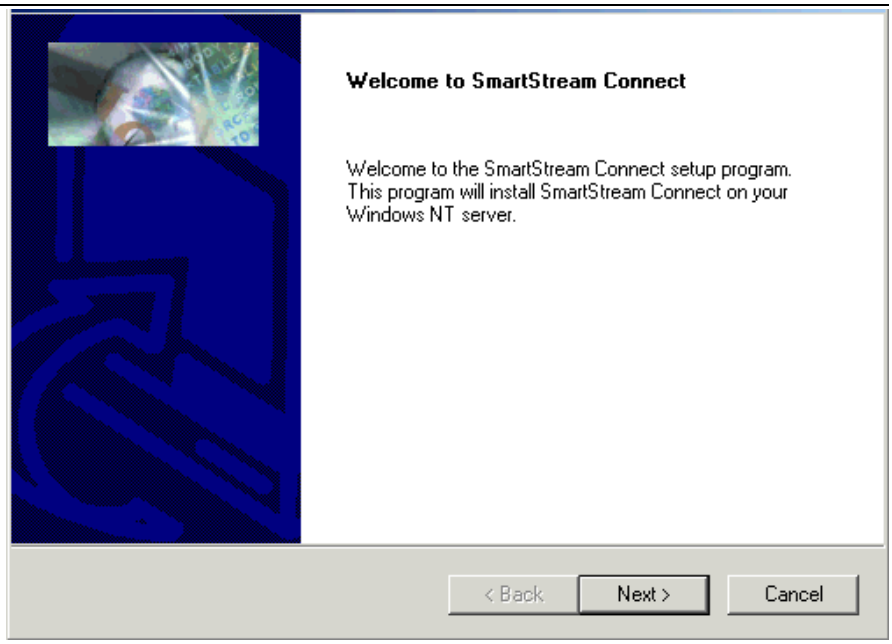
Step	Action
8	 Review your settings and click Next **Result:** When the Job Server installation finishes, the Job Server Setup Complete window appears.
9	 Click Exit.

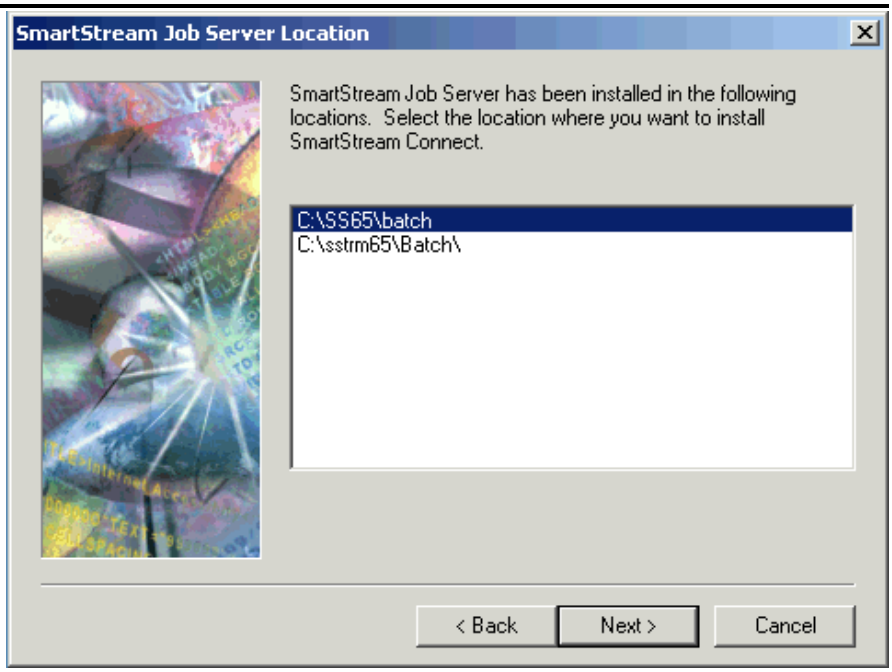
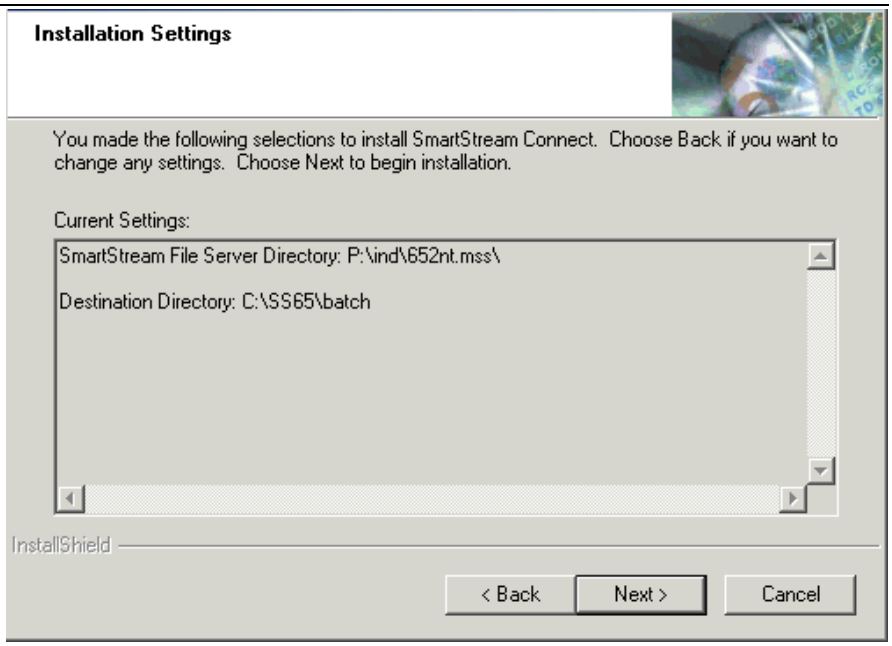
Installing SmartStream Connect

If you are installing SmartStream Connect, you must install it **after** you install the Job Server. The SmartStream Connect installation copies the contents of the SmartStream Connect directory to your Job Server installation.

Windows

If you are installing the Windows version of SmartStream Connect, you must run the setup program from the machine where the Job Server is installed and complete the following steps:

Step	Action
1	Run **setup.exe** from the connect*os* directory on the SmartStream file server, where *os* is the operating system of the Job Server installation to which you want to add SmartStream Connect. **Result:** The Welcome to SmartStream Connect window appears.
2	 Click Next. **Result:** The SmartStream Job Server Location window appears.

Step	Action
3	 If you have installed Job Server in more than one directory on the current machine, choose the location where you want to install Connect and click Next. **Result:** The Installation Settings window appears.
4	 Review your selections and click ▪ **Back** to change settings ▪ **Next** to begin the installation.

Post Installation Tasks

Use a system administrator's utility to ensure that the user ID for the SmartStream Connect server connects to the database server.

UNIX

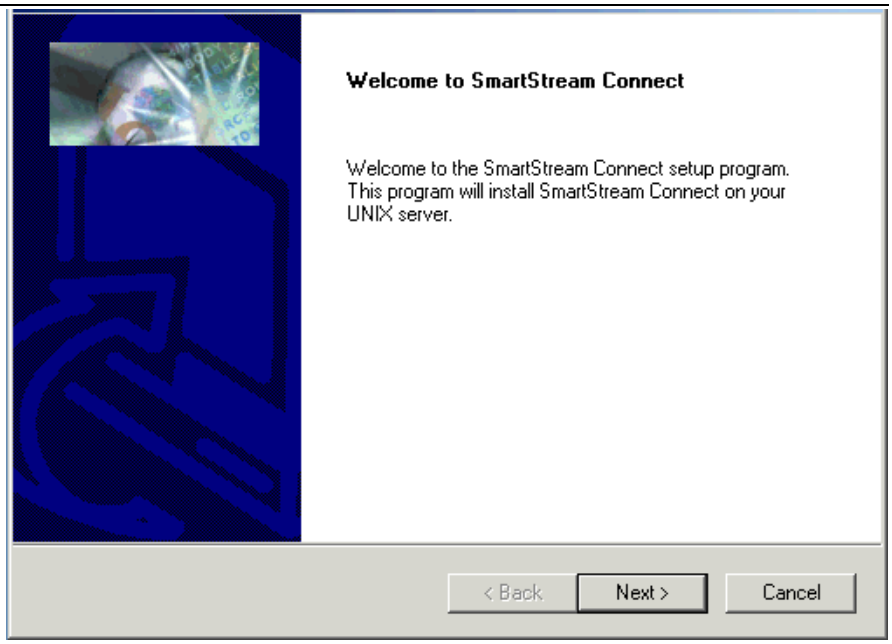
To install SmartStream Connect in a UNIX environment, complete the following tasks:

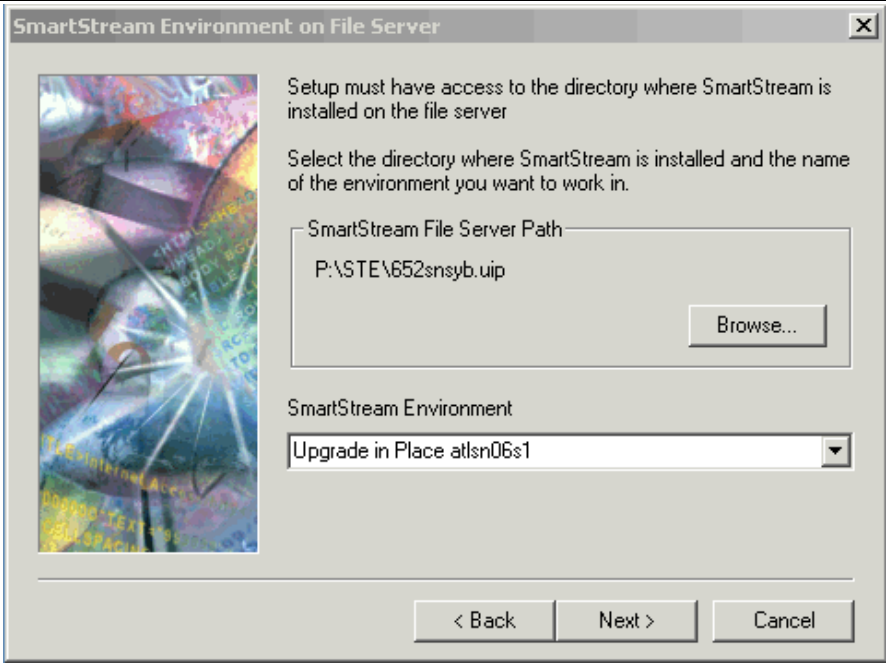
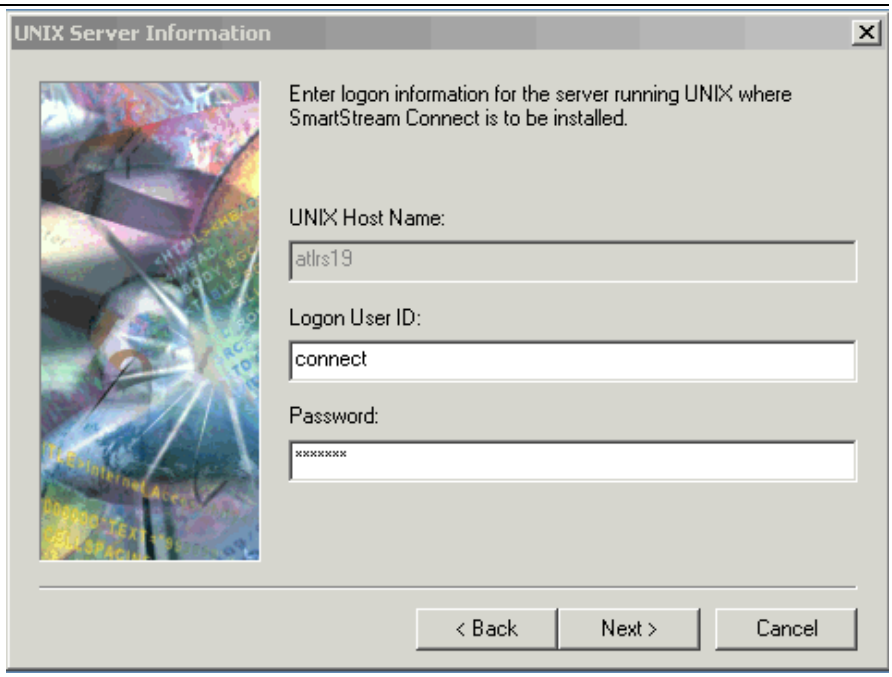
Prerequisite Task

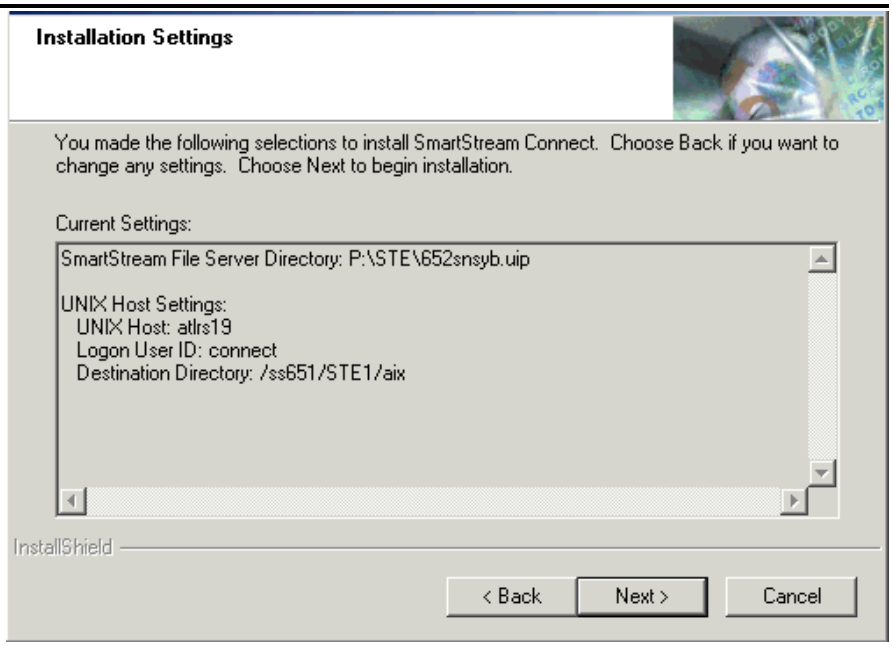
Ensure you have a valid UNIX user ID for the location where you are installing SmartStream Connect.

Running the Setup Program

To copy the SmartStream Connect files to the directory you specify, complete the following steps:

Step	Action
1	Run **setup.exe** from the connect*os* directory on the SmartStream file server, where *os* is the operating system of the Job Server installation to which you want to add SmartStream Connect. **Result:** The Welcome to SmartStream Connect window appears.
2	 Click Next. **Result:** The SmartStream Environment on File Server window appears.

Step	Action
3	 Choose the location where SmartStream is installed on the file server and the name of the environment where you want to install Connect and click Next. **Result:** The UNIX Server Information window appears.
4	 Enter logon information for the UNIX host where you want to install SmartStream Connect. **Result:** The Installation Settings window appears.

Step	Action
5	 Review your selections and click ▪ **Back** to change settings ▪ **Next** to begin the installation.

Post Installation Task

If you install SmartStream in the Sybase Adaptive Server Enterprise Server environment, use this procedure to ensure that the user ID for SmartStream Connect connects to the database server:

Step	Action
1	Change the path in the profile of the home directory with the location of the database server programs. Example: **path=/users/sybase/bin**
2	Type the following environment variables in the profile: SYBASE=**/users/sybase** MAIL=**/users/mail**
3	Type the following command: **isql -UDBS -P***password* **-S***servername* **Result:** If you connect to the database server, the following prompt is displayed: 1>
4	Type **exit**.

Installing the Mail Gateway

The Mail Gateway provides a connection between the

- Job Scheduler and your e-mail system
- Workflow and your e-mail system if you use SmartStream Mail-enabled To Do tasks.

Unlike Mail Gateway in previous releases, the SmartStream Mail Gateway Setup program now installs the Mail Gateway on a workstation as a system service and as an application.

Post Installation Tasks

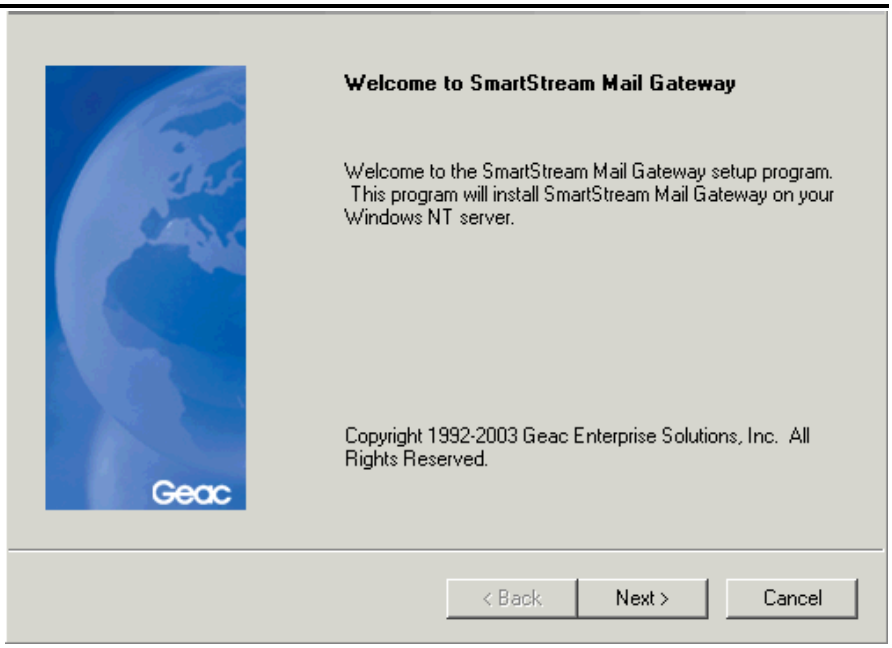
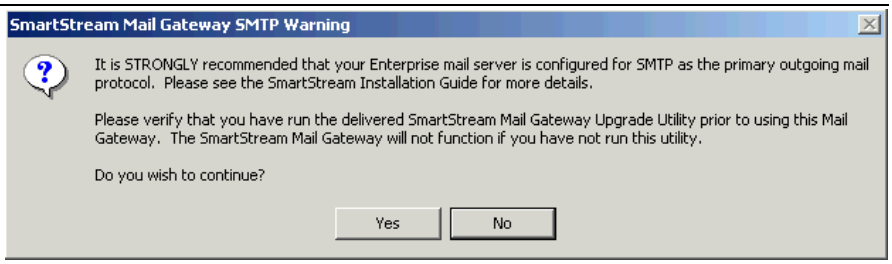
After installing the Mail Gateway, you must run the Mail Gateway Upgrade Utility. For instructions, see Post Installation Task in Chapter 10, Installing the SmartStream Mail Gateway.

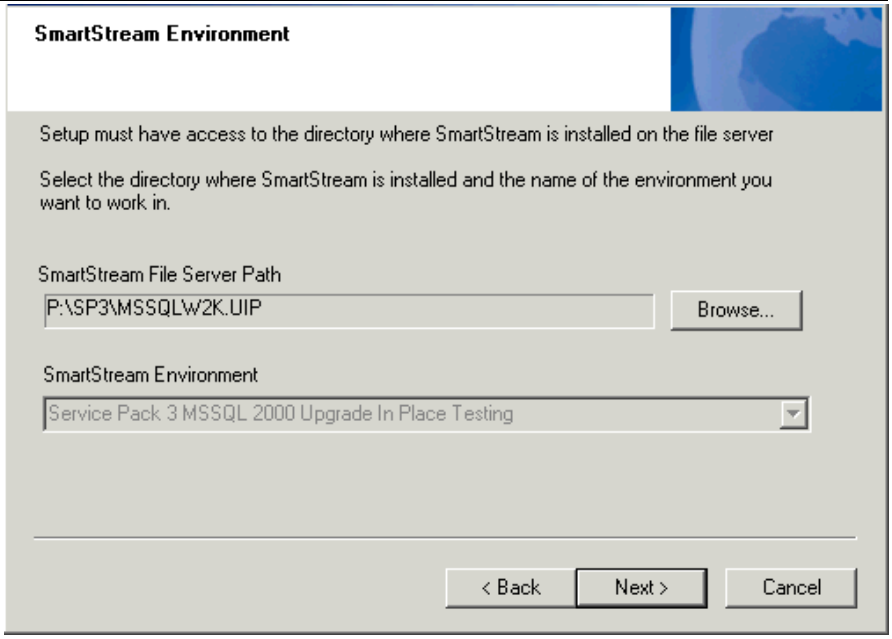
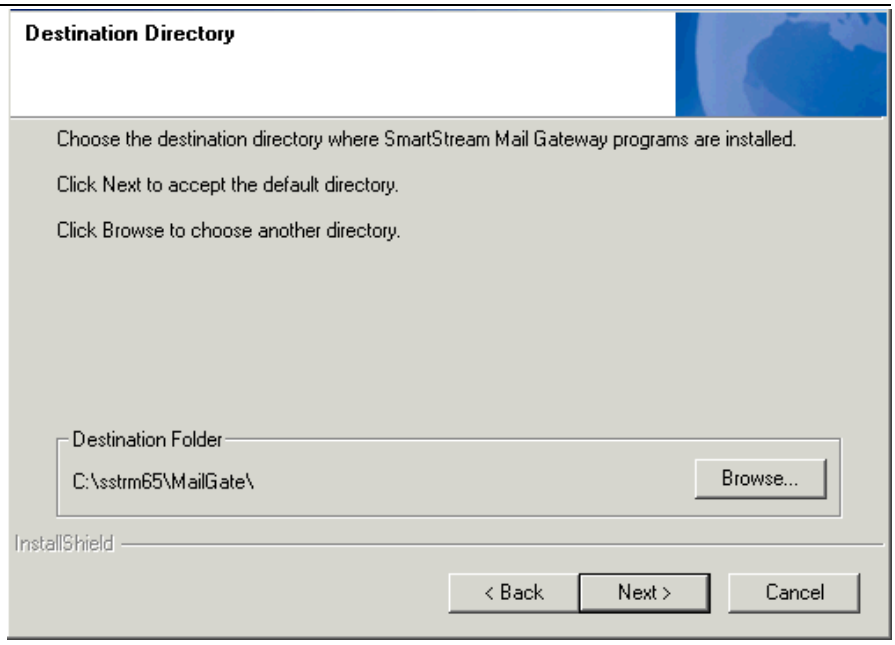
If you want to run Mail Gateway as a service and you installed it on workstation with a SmartStream client, copy the dbserver.ini file from the file server to the directory where the dbs.ini file resides. Change the DBSERVER_INI= parameter in the dbs.ini file to point to the new location of the dbserver.ini file on the workstation.

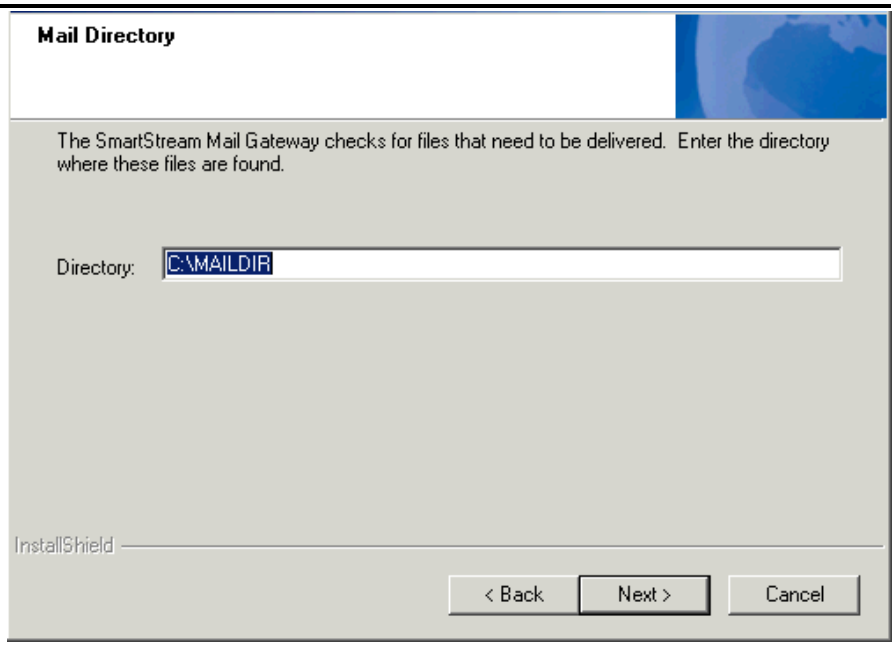
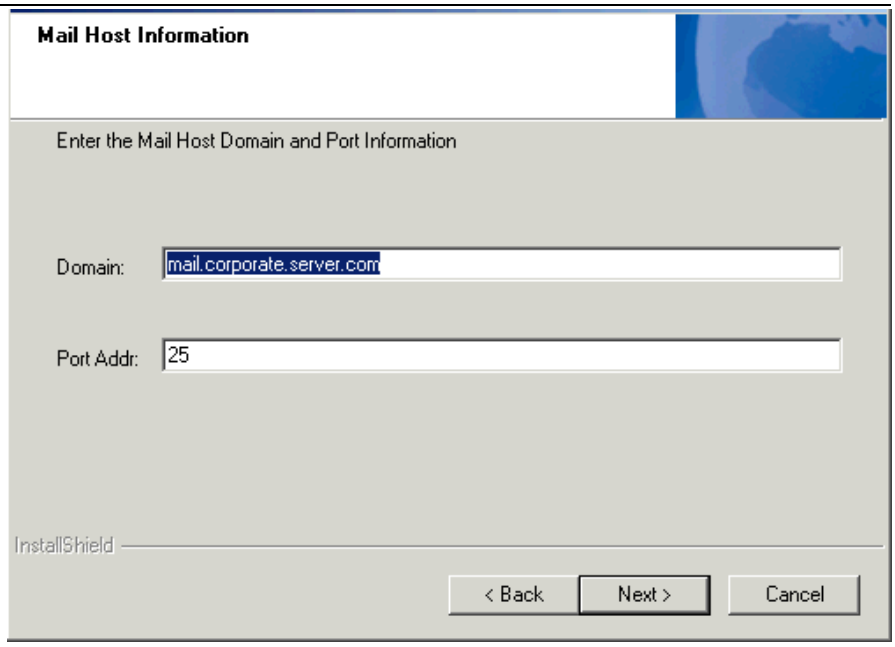
Running the Mail Gateway Setup Program

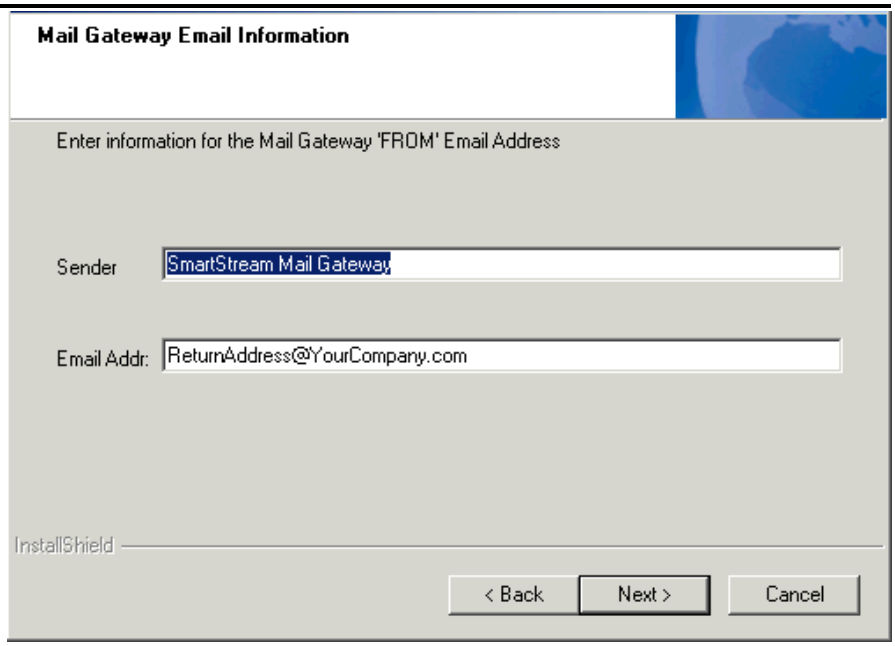
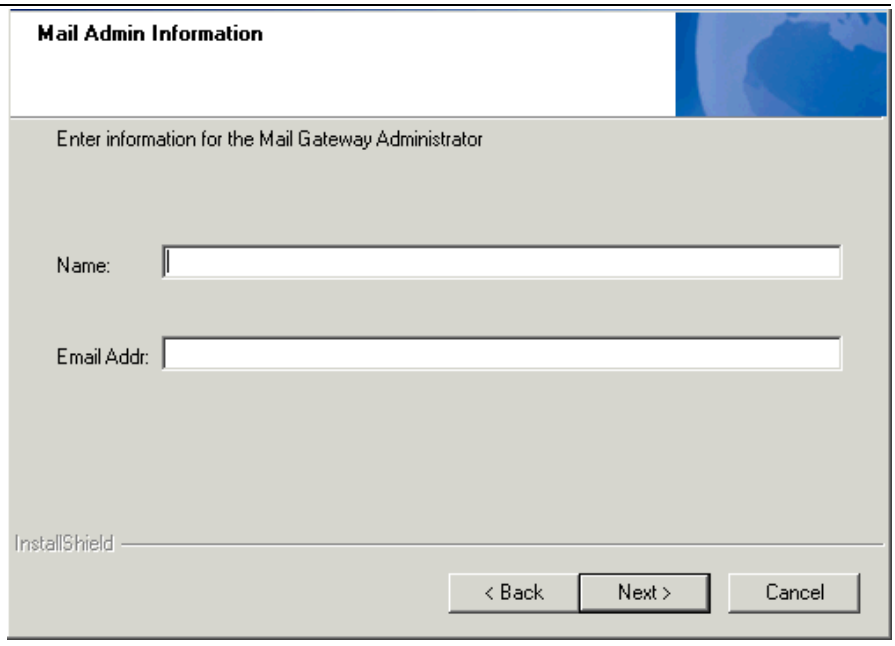
Complete the following steps to install the Mail Gateway:

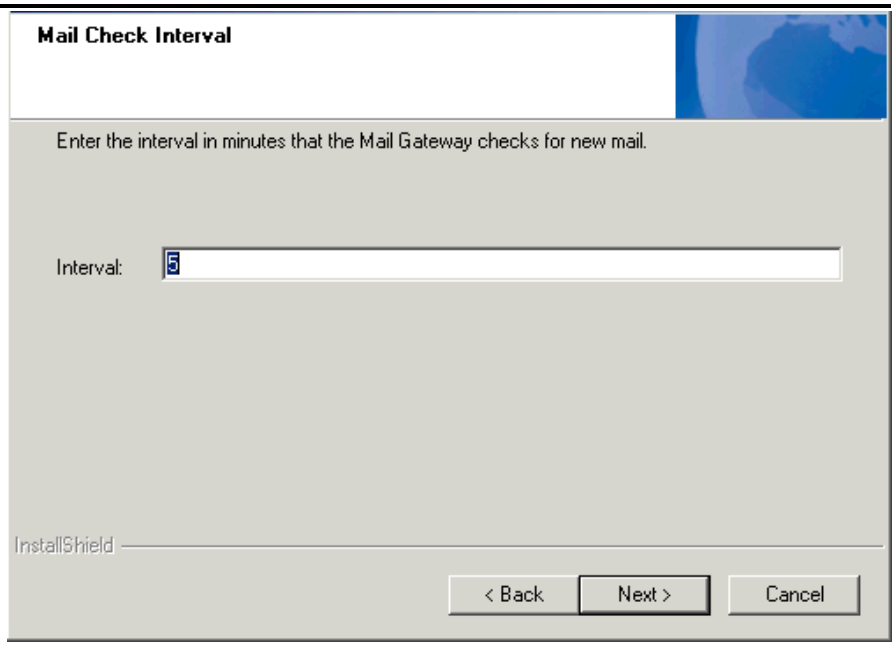
Step	Action
1	Run setup.exe from the **mailsmtp** directory on the SmartStream file server.
	Result: The Welcome to SmartStream Mail Gateway window appears.

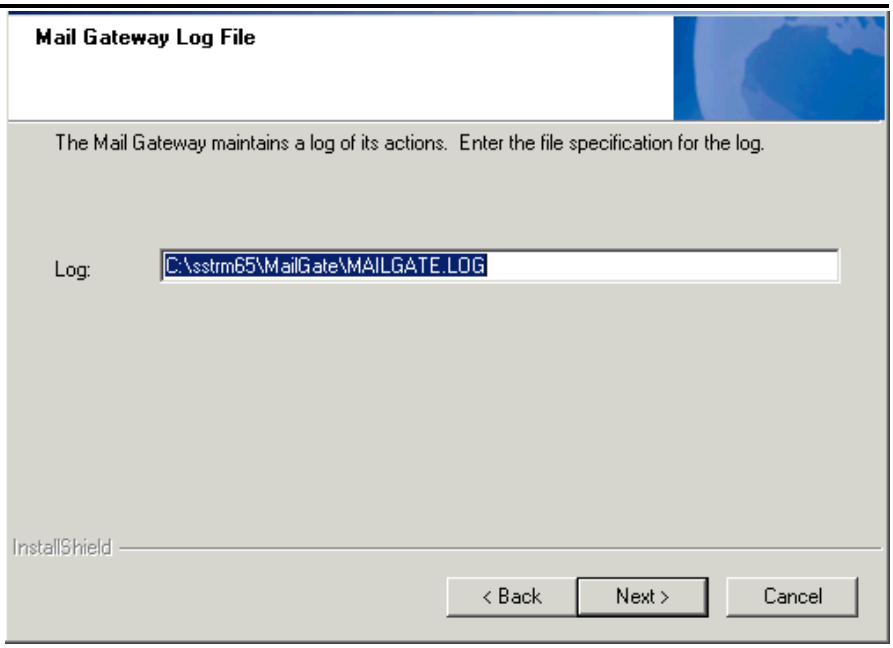
Step	Action
2	 Click Next. **Result:** The SmartStream Mail Gateway SMTP Warning appears.
3	 Verify that your enterprise mail server is configured for SMTP and click Yes. **Result:** The SmartStream Environment window appears.

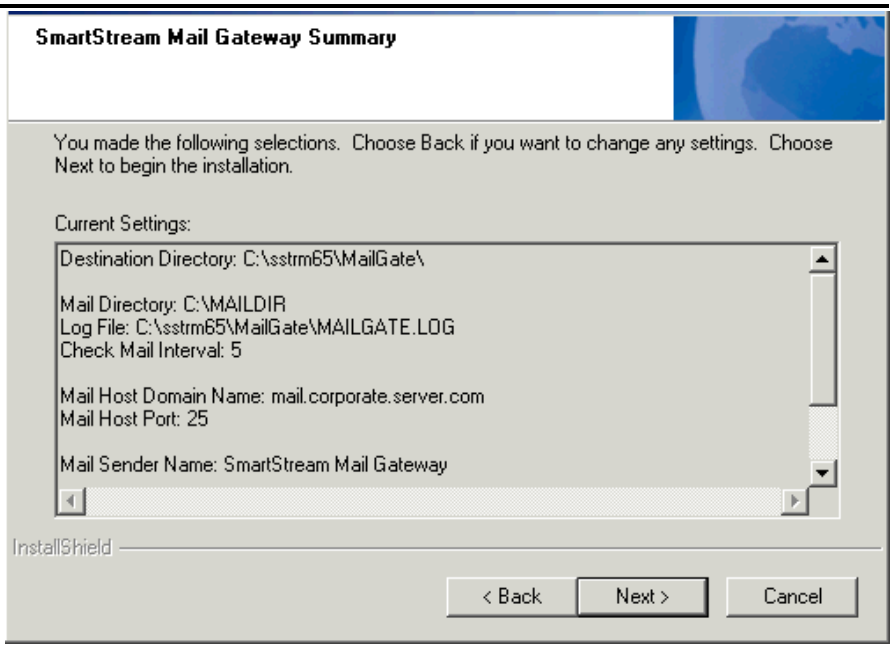
Step	Action
4	 Specify the environment where you want the Mail Gateway installed and click Next. **Result:** The Destination Directory window appears.
5	 Select the destination directory and click Next. **Result:** The Mail Directory window appears.

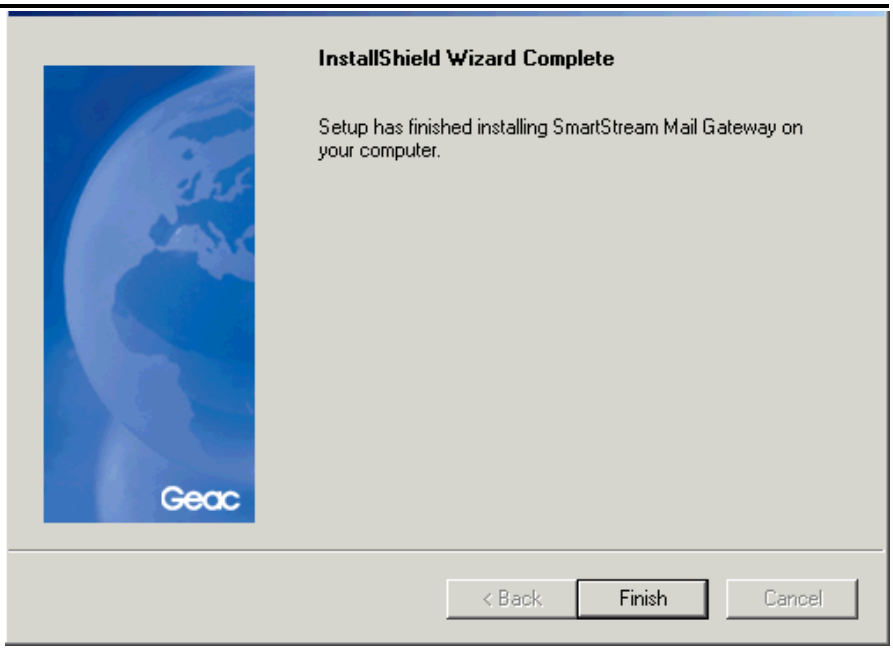
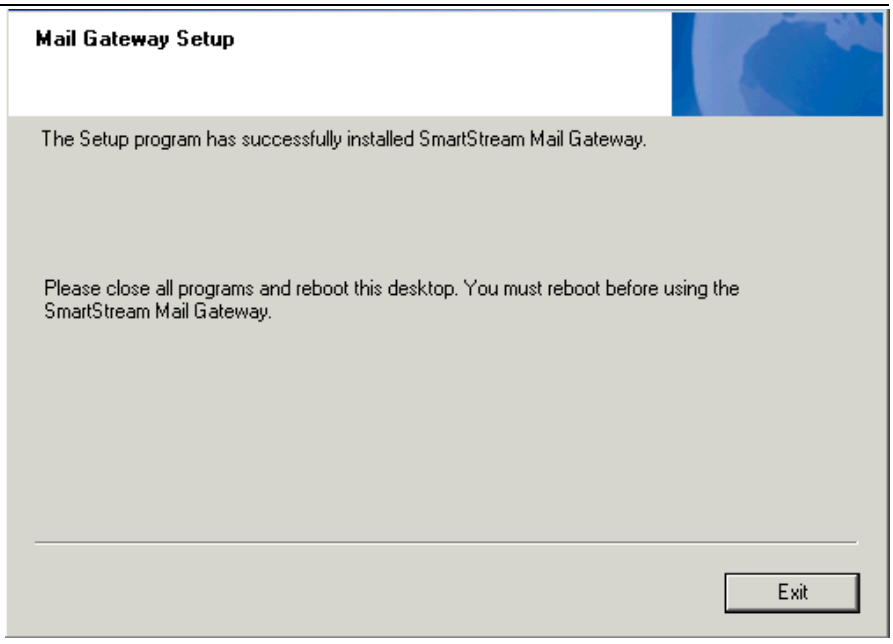
Step	Action
6	 Enter the directory where you want SmartStream to put files to deliver using electronic mail and click Next. **Result:** The Mail Host Information window appears.
7	 Enter the name and port number of your enterprise mail server and click Next. **Result:** The Mail Gateway Email Information window appears.

Step	Action
8	 Enter the sender name and e-mail address for your Mail Gateway and click Next. **Result:** The Mail Admin Information window appears.
9	 Enter the name and e-mail address of your Mail Gateway administrator and click Next. **Result:** The Mail Check Interval window appears.

Step	Action
10	 Enter the number of minutes (up to 59) you want the gateway to wait between checks for new mail and click Next. **Result:** The Mail Gateway Log File window appears.

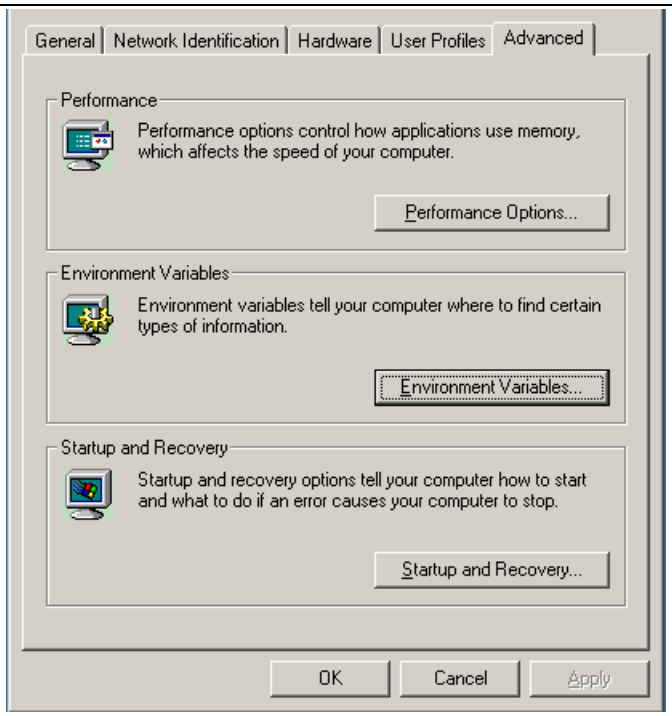
Step	Action
11	 Enter the path and name for the log file that stores processing and error information during the operation of the SmartStream Mail Gateway, and click Next. The default is *drive*:**sstrm65**\mailgate\mailgate.log. **Result:** SmartStream Mail Gateway Summary window appears.

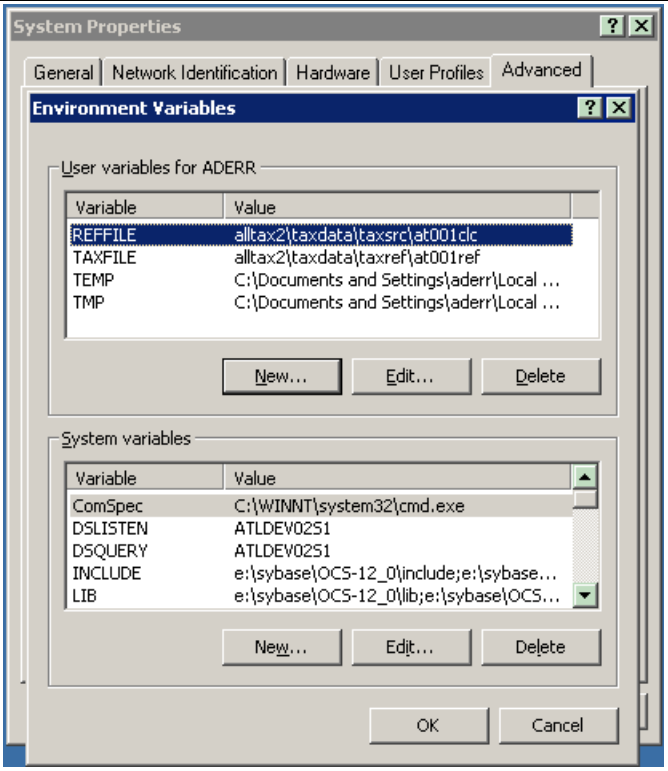
Step	Action
12	 Review your selections and click ▪ **Back** to change settings ▪ **Next** to begin the installation. **Result:** The InstallShield Wizard Complete window appears when processing is complete.

Step	Action
13	 Click Finish. **Result:** The Mail Gateway Setup window appears.
14	 Click Exit.

Setting Up ALLTAX and SQR

If you install SmartStream Payroll, you must also complete the setup of ALLTAX and SQR.

Step	Action
1	Open the Control Panel System utility and click the Advanced tab.
2	 Click the Environment Variables button. **Result:** The Environment Variables dialog box appears.

Step	Action
3	 Define the following user variables: ▪ alltax2\taxdata\taxref\at001ref ▪ alltax2\taxdata\taxsrc\at001clc **Note:** For UNIX environments, confirm that these environment variables are in **.profile**.
4	Use the Control Panel Printers utility to add a local printer.
5	Run **hralltax.bat** from the batch directory.
6	Use the Control Panel ODBC Data Source Administrator utility to define ODBC settings for Microsoft SQL Server or Sybase.
7	Run the SQR setup from your batch directory using this command: **Batchdir>hpyrload DBS/password SERVERNAME** Where **Batchdir** is your batch directory and **/password SERVERNAME** is the logon information for the server where you want to install SQR.
8	Use a SQL editor to add printer names to the printer_id_tbl table in the DBShrpn database.

Configuring Master Scheduler, Poll, and ARPC

The following table shows the process for configuring Master Scheduler, Poll, and ARPC:

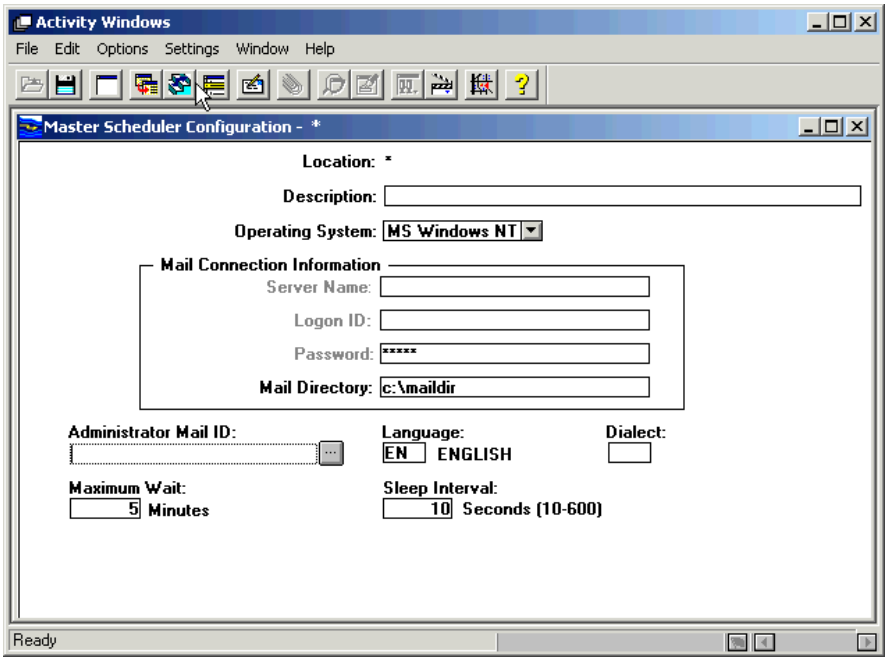
Stage	Description
1	Using SmartStream, configure Master Scheduler, Poll, and ARPC.
2	For Windows workstations, create a shortcut on the desktop for Poll. **Note:** For SmartStream HR only, use the **NOSERVICE** option for Poll and start it.
3	Use the Control Panel Services utility to update services. Change the option for ▪ SmartStream Master Scheduler and ARPC to start **automatically** and start these programs. ▪ SmartStream Poll to **disable** and run with the NOSERVICE option from the desktop (SmartStream Human Resources only).

Configuring Master Scheduler

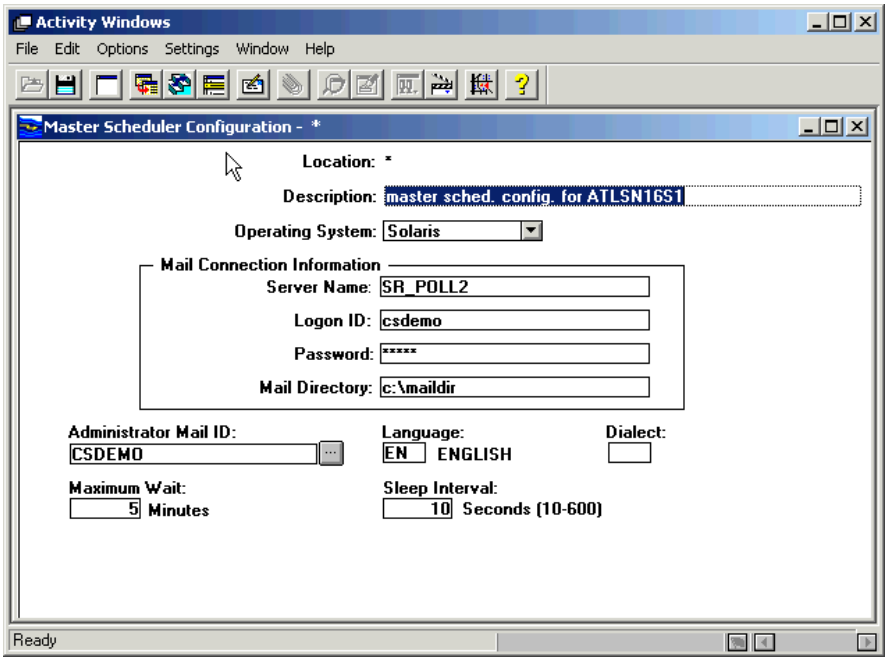
Use the following procedure to define a Job Scheduler Master Scheduler:

Step	Action
1	Click Master Scheduler Configuration in your Activity List. **Result:** The Master Scheduler Configuration window appears.

Step	Action
2	For Windows environment



For UNIX environment



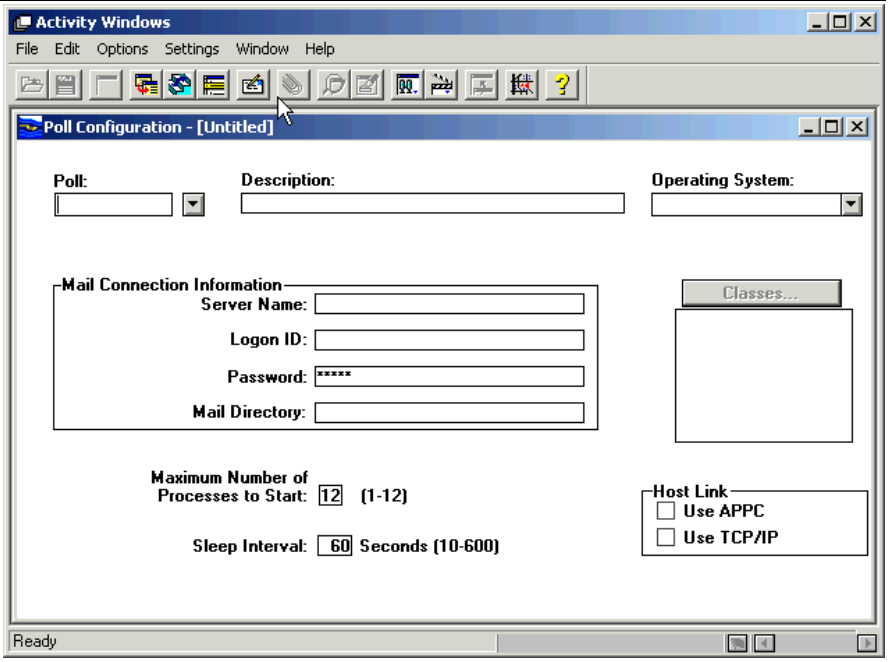
Enter configuration information as needed.

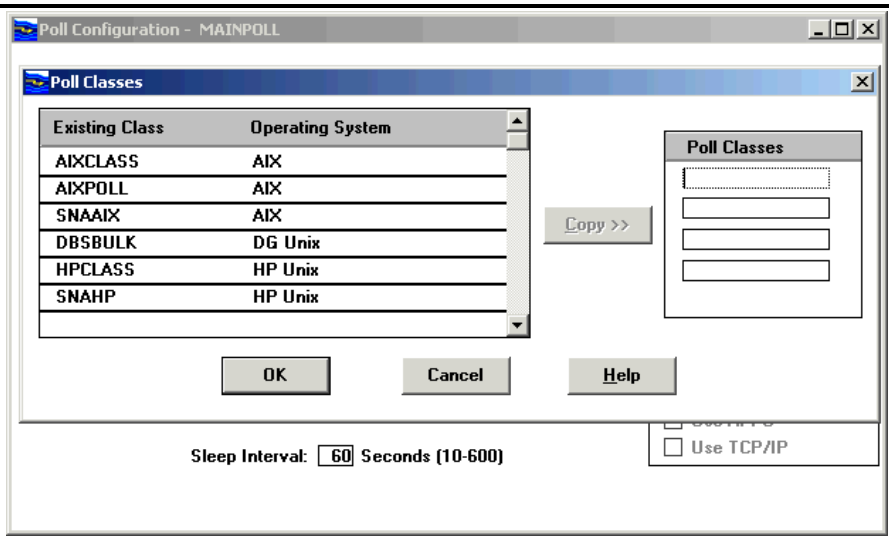
For information about the fields on this window, see the online Help for the window.

3	Save the configuration and close the window.

Configuring Poll

Use the following procedure to define an instance of the poll:

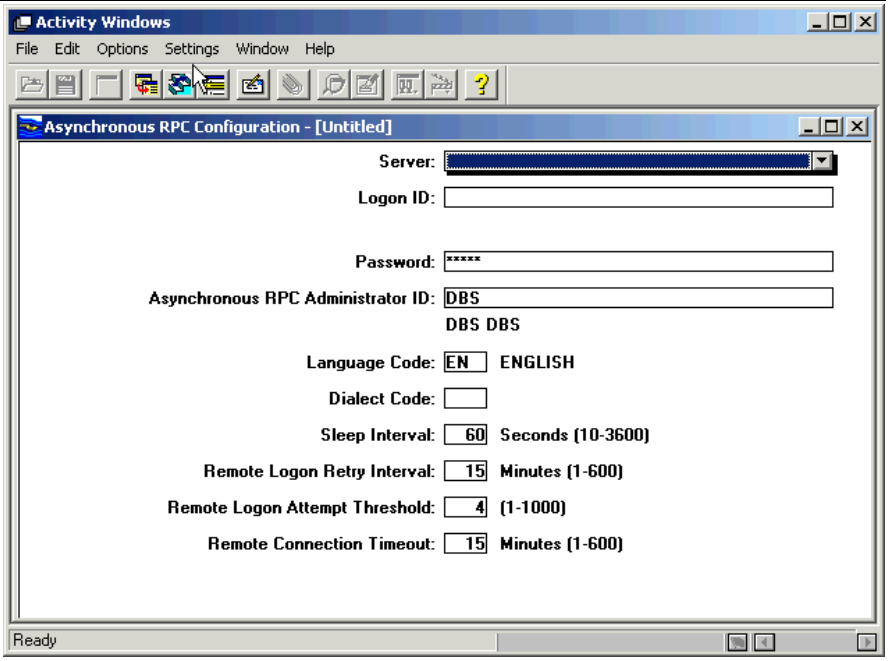
Step	Action
1	Click Poll Configuration in your Activity List. **Result:** The Poll Configuration window appears.
2	 Enter configuration information as needed. For information about the fields on this window, see the online Help for the window.
3	To define poll classes, click the Classes button. **Result:** The Poll Classes dialog box appears.

Step	Action
4	 To create a new class, enter a new class name one of the fields in the Poll Classes box. To add an existing class, select a class from the Existing Class list and click Copy. When you finish entering classes, click OK to close the dialog box.
5	Save the configuration.

Configuring ARPC

Use this procedure to configure the Asynchronous RPC Master Server.

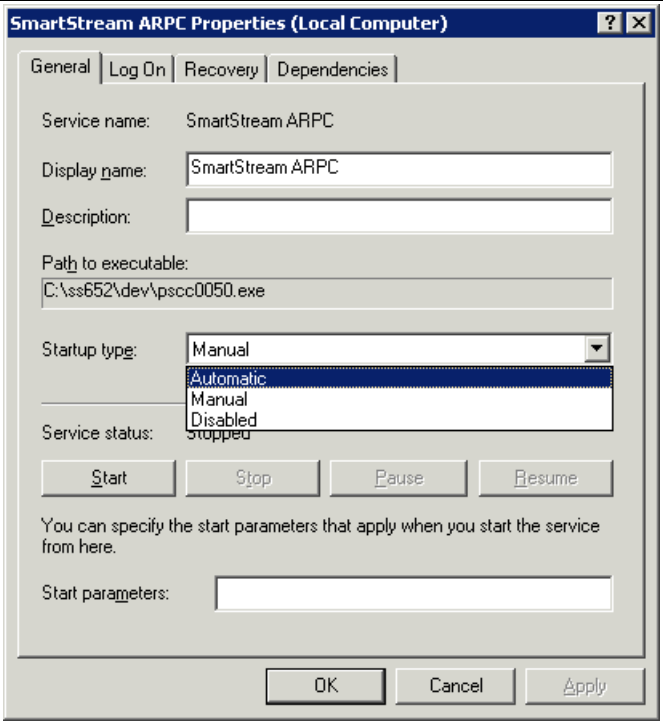
Step	Action
1	Click Asynchronous RPC Configuration in your Activity List. **Result:** The Asynchronous RPC Configuration window appears.

Step	Action
2	 Enter configuration information as needed. For information about the fields on this window, see the online Help for the window.
3	Save the configuration.

Example of Updating Services

The following procedure shows how you update the ARPC Master Server in a Windows 2000 environment:

Step	Action
1	Open Control Panel.
2	Click Administrative Tools, then click Services, and select SmartStream ARPC. **Result:** The SmartStream ARPC Properties dialog box appears.

Step	Action
3	 Change the Startup type setting to **Automatic**, click Start under Service status, and click OK.
4	Close the SmartStream ARPC utility.
5	Close the windows that were opened.

Performing Post-Installation Tasks

After you successfully install SmartStream, you must perform certain post-installation tasks appropriate to your SmartStream environment.

For information about post-installation tasks, see Chapter 13, After Completing the Setup Process, in the SmartStream *Installation Guide*.

Appendix A Utilities

Appendix Contents

A-1 Before You Begin
A-2 wjamit Utility

Before You Begin

Installation worksheets are provided to help you plan your installation of SmartStream. See Appendix B for the appropriate worksheets.

wjamit Utility

The wjamit utility is a Windows and UNIX utility that you use to perform the following activities:

- Create databases
- Load databases
- Initialize tables
- Export and import data during the migration process

Installation

When you ran the File Server Setup program from the SmartStream compact disc, the wjamit utility for Windows was installed in the **\dbms** directory on your file server.

Prerequisite Tasks

☐ If you use Sybase Adaptive Server Enterprise, ensure that the supported version of Open Client for Windows software is installed on your installation workstation.

If you use Microsoft SQL Server, ensure that the supported version Microsoft Database Client software is installed on your installation workstation.

☐ Ensure that the directory you plan to use for output files (.out, .err, and .rst) was added and that you can write files to this directory.

Calling Parameters

The following table shows calling parameters in sequence:

Seq.	Parameter Name	Description
1	Utility name	Always **wjamit.exe**
2	.prf run option	Valid values are 1 - Normal run: stop on first - error 2 - Restart the run using the - restart file 3 - Run, but do not stop on error 4 - Syntax check prf file. **Example:** 1

Seq.	Parameter Name	Description
3	.prf file name	Usually database.prf
4	Section name in a .prf file	**Example:** INSTALL_WITH_ED_DATA
5	Output file directory	**Example: s:\geac.rs\dbms\fast**
6	File prefix	Defines the prefix for all wjamit output files **Example:** fast (results in fast.out, fast.err, fast.rst)
7	Server name	**Example:** radrs04s6
8	Server login	**Example:** sa
9	Server login password	**Example:** password

Example

The following sample command illustrates the use of the calling parameters:

..\wjamit.exe 1 database.prf *INSTALL_WITH_DATA s:\geac.rs\dbms\fast\ fast radrs04s6 sa password*

Syntax Rules

Observe the following list of syntax rules:

- The section name is case sensitive and must exactly match the section name in the .prf file.
- The output file directory must end with a backslash (\).
- You cannot omit any parameters.

Running the wjamit Utility

From the directory that contains the .prf file and .sql files referenced in the .prf file, type **..** followed by the calling parameters, with no space between the backslash (\) and **wjamit.exe** (the first parameter).

This step assumes that the wjamit utility is stored one level higher in the directory structure than the .prf file.

Output Files

The wjamit utility generates the following output files:

Files with these extensions...	Contain...
.out	A historical record of database activity.
.err	Only error information.
.rst	Restart information if an error occurs.

Appendix B Installation Worksheets

Appendix Contents

B-1 File Server Installation Worksheet
B-3 Database Server Installation Worksheets
B-9 SmartStream Builder Database Server Installation Worksheet
B-10 SmartStream Client Workstation Installation Worksheet
B-12 SmartStream Mail Gateway Installation Workstation Worksheet
B-13 SmartStream Job Server Installation Worksheet
B-15 SmartStream Connect Installation Worksheet
B-16 SmartStream Documentation Copy Worksheet
B-17 Environment Information on AnswerLink Worksheet

File Server Installation Worksheet

Complete this worksheet as you read Chapter 3, Preparing and Installing the File Server.

Installation Type: Quick or Custom

Location of license file:_____

Source directory:_____

Operating system:_____

Administrator's language:_____

Destination directory:_____

Product Components to Install

Product	Installing this product?	
Accounts Payable	Yes	No
Accounts Receivable	Yes	No
Allocations	Yes	No
Analyzer	Yes	No
Asset Management	Yes	No
Benefits	Yes	No
Billing	Yes	No
Budget	Yes	No
Connect	Yes	No
Consolidations	Yes	No
DSS Viewer	Yes	No
Funds Control	Yes	No
Ledger: Average Balances	Yes	No
Ledger: Commercial	Yes	No
Management Reporter	Yes	No
Payroll	Yes	No
Personnel	Yes	No
Projects	Yes	No
Purchasing	Yes	No
Shared Components	Yes	
SmartStream	Yes	
SmartStream Builder	Yes	No
Supplies Management	Yes	No

Database Server Installation Worksheets

Complete the following worksheets to set up your database server by creating and loading the SmartStream databases.

Reference

Complete the worksheets as you read Chapter 6, Installing SmartStream Products on the Database Server.

Creating Databases

Server name:_____

User ID:_____

Password:_____

dbsinst.ini file location:_____

New Environment

Environment description:_____

Existing Environment

Environment to install:_____

Products to Install

Product	Installing this product?	
Accounts Payable	Yes	No
Accounts Receivable	Yes	No
Allocations	Yes	No
Analyzer	Yes	No
Asset Management	Yes	No
Benefits	Yes	No
Billing	Yes	No
Budget	Yes	No
Connect	Yes	No
Consolidations	Yes	No
DSS Viewer	Yes	No
Funds Control	Yes	No
Ledger: Average Balances	Yes	No
Ledger: Commercial	Yes	No
Management Reporter	Yes	No
Payroll	Yes	No
Personnel	Yes	No
Projects	Yes	No

Product	Installing this product?	
Purchasing	Yes	No
Shared Components	Yes	
SmartStream	Yes	
SmartStream Builder	Yes	No
Supplies Management	Yes	No

What is the logical name of the data device and log device for each product component you are installing on the database server?

Product	Component	Data Device	Log Device
Accounts Payable	prqt		
	pymt		
Accounts Receivable	cred		
	rrcv		
Allocations	allc		
Asset Management	fast		
	fwrk		
Background Load	mabl		
Billing	bill		
Budget	bdgt		
Connect	piqd		
Consolidations	cons		
Cost Management	cost		
Funds Control	fund		
Items	pmam		
	pplm		
Ledger	glep		
	jepc		
Payroll	hrpa		
	hrpy		
Personnel	hapm		
	hrac		
	hrpn		

Product	Component	Data Device	Log Device
Procurement Common	cntl		
	dclm		
	hist		
	mfgi		
	otpm		
	plmm		
	rsmm		
	udef		
Projects	pjal		
	pjcm		
	proj		
	pwrk		
Purchasing	pcde		
	poan		
	puen		
	reqm		
Receiving	ropm		
Shared Components	bank		
	cand		
	cmre		
	cscommon		
	dbis		
	entp		
	pclh		
	purg		
	udak		
	vend		
	vmst		
	vpur		
SmartStream	apra		
	arpc		
	avnm		
	cfrm		

Product	Component	Data Device	Log Device
	cmat		
	ctlg		
	ctlgddl		
	ctlgmast		
	ctlgsrv		
	demo		
	lang		
	mesm		
	osst		
	osxp		
	piqdlite		
	pscb		
	rcmd		
	rcmr		
	robd		
	robr		
	supc		
	supt		
	wact		
	wijt		
	wijtwact		
	wsa1		
	wsa2		
SmartStream Builder	psb1		
	sbctlg		
	sbwact		
Supplies Management	iplm		
	rcth		
	strm		
Unit of Measure	uomm		

Loading Databases

Server name:_____

User ID:_____

Password:_____

dbsinst.ini file location:_____

Environment to install:_____

Products to Install

Product	Installing this product?	
Accounts Payable	Yes	No
Accounts Receivable	Yes	No
Allocations	Yes	No
Analyzer	Yes	No
Asset Management	Yes	No
Benefits	Yes	No
Billing	Yes	No
Budget	Yes	No
Connect	Yes	No
Consolidations	Yes	No
DSS Viewer	Yes	No
Funds Control	Yes	No
Ledger: Average Balances	Yes	No
Ledger: Commercial	Yes	No
Management Reporter	Yes	No
Payroll	Yes	No
Personnel	Yes	No
Projects	Yes	No
Purchasing	Yes	No
Shared Components	Yes	
SmartStream	Yes	
SmartStream Builder	Yes	No
Supplies Management	Yes	No

Education Data

Load education data?	Yes	No

SmartStream Builder Database Server Installation Worksheet

Complete the following worksheet as you read Chapter 6, Installing SmartStream Products on the Database Server.

Multiple-Server Environments

Environment to install:_____

Logon Information

Database Server Name_____

System Administrator Role ID:_____

Password:_____

SmartStream Client Workstation Installation Worksheet

Make a copy of this worksheet for each SmartStream profile file that you create. You might want to make a copy for each workstation you install SmartStream products on. Complete the worksheet as you read Chapter 9, Installing SmartStream Products on the Client Workstation.

Profile name: _____

Type of installation:

Local or Network

Autoexec options:

Modify autoexec.bat

Save changes as autoexec.dbs

Destination directory: _____

Products

Accounts Payable	Ledger
Accounts Receivable	Management Reporter
Allocations	Open Analyzer
Analyzer	Payroll
Asset Management	Personnel
Benefits	Projects
Billing	Projects Allocation
Budget Administrator and Budget Workbench	Projects Common
Common Components	Purchasing
Consolidations	Receiving
Euro Currency	SmartStream
Funds Control	Supplies Management
Items	Reporting Tools (Choose only if you do not install SmartStream on the client workstation.)

SmartStream Builder Installation for Client Workstation

Make a copy of this worksheet for each client workstation you install with SmartStream Builder. Complete the worksheet as you read Chapter 9, Installing SmartStream Products on the Client Workstation.

Answer file location: _____

Target Directory: _____

Location of SmartStream: _____

SmartStream Mail Gateway Installation Workstation Worksheet

Make a copy of this worksheet for each database server you install as a mail gateway. Complete the worksheet as you read Chapter 10, Installing the SmartStream Mail Gateway.

Answer file directory:_____

SmartStream file server path:_____

Destination directory: _____

Mail directory: _____

Mail host domain and port: _____

Mail Gateway e-mail:_____

Mail Gateway administrator: _____

Mail check interval: _____

Log file name: _____

SmartStream Job Server Installation Worksheet

Use the worksheet that is appropriate for your environment.

UNIX Environment

The following worksheet is appropriate for the UNIX environment. Complete the worksheet as you read Chapter 11, Installing Job Server.

Environment to install:_____

UNIX host name: _____

Logon user ID: _____

Password:_____

Destination directory:_____

Database server name: _____

System administrator role ID:_____

Password:_____

Poll name: _____

Path to Job Server:_____

ARPC server name: _____

Windows Server Environment

The following worksheet is appropriate for the Windows Server environment. Complete the worksheet as you read Chapter 11, Installing Job Server.

Environment to install:_____

Destination directory: _____

Database server name: _____

System administrator role ID: _____

Password:_____

Poll name: _____

Path to Job Server:_____

ARPC server name: _____

SmartStream Connect Installation Worksheet

Use the worksheet that is appropriate for your environment.

UNIX Environment

The following worksheet is appropriate for the UNIX environment. Complete the worksheet as you read Chapter 12, Installing SmartStream Connect.

Environment to install:_____

Job Server location where you are installing Connect:

_____

UNIX host name: _____

Logon User ID: _____

Password: _____

Windows Environment

The following worksheet is appropriate for the Windows environment. Complete the worksheet as you read Chapter 12, Installing SmartStream Connect.

Environment to install:_____

Job Server location where you are installing Connect:

_____

SmartStream Documentation Copy Worksheet

Complete the following worksheet as you read Chapter 13, Copying SmartStream Library PDF Files.

SmartStream Library

Destination directory: _____

Environment Information on AnswerLink Worksheet

Be sure to update your environment information on AnswerLink.

SMARTStream®

Migration Guide

Version 6.5

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Appendix C Tables with Minimal Required Data

C-1 About Tables with Minimal Required Data

Introduction

The SmartStream® *Migration Guide* from Geac Enterprise Solutions (Geac) describes:

- The migration process
- Setting up your migration environment
- Migrating data to the new version of SmartStream, SmartStream 6.5
- Verifying that data migrated properly

Audience

The audience for this guide is users who migrate SmartStream products and data.

Prerequisites

You must be familiar with the following products to migrate SmartStream products and data:

- Microsoft Open Client or Sybase Open Client
- Microsoft SQL Server or Sybase Adaptive Server Enterprise
- Windows
- SmartStream products
- UNIX or Windows Server
- your mail software product

Conventions

The checkbox to the left of text (☐) identifies a task you complete during the migration process.

1 Overview

Chapter Contents

1-1 Before You Begin
1-2 Migration Process Overview
1-4 What Is and Is Not Migrated
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Before You Begin

Before you begin the migration process,

- Install your SmartStream 6.5 products, including all languages and SmartStream Builder as applicable. See the SmartStream *Installation Guide.*
- Check that your current system has the correct service pack applied: **For SmartStream 6.0, you must have applied Service Pack 3**.
- Read this guide to become familiar with the tasks and the migration process.
- Use SmartStream AnswerLink to find all the relevant solutions.
- Complete the appropriate worksheet for your migration scenario.

Upgrade in Place for SmartStream 6.5

If you are using a Sybase DBMS and you are migrating from SmartStream 6.0 Service Pack 3 to SmartStream 6.5 you have two methods to select from:

- Traditional migration - as described in this guide
- Upgrade in Place - applies only to your database server

Upgrade in Place is much faster. If you use Upgrade in Place, however, you still need to install a new file server area and reinstall client and Job Server machines. For instructions for performing an upgrade in place, see the *Upgrade in Place for Sybase* guide.

Migration Process Overview

To migrate from your current version of SmartStream to SmartStream 6.5 successfully, you must complete the following tasks in the order shown:

- A new 6.5 environment must be installed.
- The new environment must be tailored to mirror your current SmartStream environment (this is critical if you have tailored the user-defined accounting key (UDAK) in your current environment).
- Bulk copy files (.bcp) of the data on your existing environment must be created and imported into the new 6.5 environment.

This guide steps you through each of the preceding actions to complete the migration process.

Terms

The environment you migrate...	Is referred to as your...
From	Current environment (this includes 6.0 Service Pack 3)
To	6.5 or new environment

Supported Migration Scenarios

SmartStream provides the following migration scenarios:

Migration Scenario	Description
Current Release to New Release	You can migrate from SmartStream 6.0 Service Pack 3 Sybase Adaptive Server Enterprise or Microsoft SQL Server to SmartStream 6.5 Sybase Adaptive Server Enterprise or Microsoft SQL Server.
Same to Same	You can migrate from one SmartStream environment to another SmartStream environment as long as both environments have the same release installed and both environments have the same SmartStream individual solutions, cumulative solutions, and service packs applied. As with migrating from the current release to a new release, you can migrate from Sybase Adaptive Server Enterprise or Microsoft SQL Server to Sybase Adaptive Server Enterprise or Microsoft SQL Server.

The migration process is the same for Current Release to New Release and Same to Same migration.

Character Set

Make sure that your 6.5 platform uses the same character set that your current platform uses; otherwise, errors might occur.

What Is and Is Not Migrated

This section describes the products and data that are

- Migrated using SmartStream automated and manual processes
- Not migrated using SmartStream-supported processes.

What Is Migrated

The migration process migrates all SmartStream databases.

What Is Not Migrated

The migration process does not migrate

- Non-SmartStream databases and their associated data and objects (stored procedures, triggers, views, and tables)
- Non-SmartStream data and objects (stored procedures, triggers, views, and tables) in SmartStream databases in your current environment
- Databases and their associated data and objects (stored procedures, triggers, views and tables) built using SmartStream Builder
- Mail messages
- New activities your enterprise defined to security groups. You must update your tailored security information to access activities.

Maintaining Data Integrity

Maintaining data integrity while migrating from one version of SmartStream to another is critical.

Recommendations

Review the following recommendations for maintaining data integrity before beginning the migration process:

- Prepare your server environments before migrating data. For more information, see Chapter 2, Preparing for Migration.
- Back up your
  - Current server and client environments
  - 6.0 Service Pack 3 environment.
- Ensure that no one is working in your current SmartStream environment during the migration process.
- Ensure that you have successfully completed the migration process before you make the 6.5 environment your production environment.
- Set up the new server and client workstations as test environments until you are confident that the data migrated properly.

Variables That Affect Migration Time

The time required to migrate data varies from minutes to hours depending on the following characteristics of your enterprise:

- Computing and networking capabilities
- Licensed products
- Tailored features, such as a user-defined accounting key and language kits
- Database variables, such as the size and number of tables
- Number of saved specifications and reports

2 Preparing for Migration

Chapter Contents

2-1 About Preparing for Migration
2-2 Process Overview
2-3 Using SmartStream AnswerLink
2-4 Planning Your Migration
2-5 Preparing the Migration Environment
2-6 Preparing Database Server Environments
2-7 Establishing Connectivity
2-9 Initializing SmartStream Tables

About Preparing for Migration

This chapter describes how to prepare your environments to migrate SmartStream data. Read this chapter and set up the required configuration before beginning the migration process.

Process Overview

The following table describes the process for preparing to migrate your SmartStream products and data:

Stage	Description
1	Access SmartStream AnswerLink for the latest migration information and apply all available 6.0 service packs.
2	Plan your migration process using the appropriate worksheet so that you will have the information you need when it is required during the migration process.
3	Prepare the migration environment.
4	Prepare the SmartStream server environments.
5	Establish connectivity to the ▪ Servers ▪ DBMS
6	Run the SmartStream Table Initialization Setup program on the destination server to ▪ Clear the tables ▪ Prepare the cleared tables for migration
7	Load language kits to the appropriate database server if you tailor your accounting key and license language kits.

Using SmartStream AnswerLink

SmartStream AnswerLink contains the latest SmartStream migration information. Before starting the migration process

- Review the Critical Issues document on the AnswerLink Bulletin Board under SmartStream, Release Information, *release number*
- Apply all available service packs for 6.0

For more information about using SmartStream AnswerLink, see the SmartStream AnswerLink *Getting Started Guide*.

Planning Your Migration

Because the migration process involves several steps and varies depending on the products and versions of SmartStream you are migrating, we recommend that you take the time to plan your migration tasks.

Planning Aids

The following planning aids help you plan the migration of your SmartStream products and data:

- SmartStream Migration Task List
- SmartStream Migration Worksheets

SmartStream Migration Task List

The SmartStream Migration Task List contains a tailored list of migration tasks that you perform at your enterprise. Access the Migration Task List on the AnswerLink Bulletin Board under SmartStream, Release Information, *release number*. Print the task list and track your progress through the migration tasks.

SmartStream Migration Worksheets

Use the SmartStream Migration Worksheets to record information about your environment that you need during the migration process. A worksheet is provided for each migration scenario.

The SmartStream Migration Worksheets are in Appendix A of this guide.

Preparing the Migration Environment

Ensure that the products you plan to migrate from your current environment are installed in your 6.5 environment. This helps prevent errors.

Migration Workstation

Run the migration process on a Windows workstation that conforms to the supported technical environments specification for SmartStream 6.5 found on the AnswerLink Bulletin Board under SmartStream, Release Information, *release number*.

Exported File Location

Data in your current environment is extracted to .bcp files in your 6.5 environment. The following table shows where data is exported during migration:

If your current and 6.5 operating system is...	Then data is extracted to .bcp files on…
UNIX	Your choice of either ▪ The UNIX server where your 6.5 Job Server is installed ▪ The 6.5 file server
Microsoft NT Server	The 6.5 file server

Space Requirement

Ensure that sufficient space is allocated on the server where the .bcp files are extracted. This space should be equal to or greater than the amount of space used in the DBMS data segments.

Preparing Database Server Environments

Complete the following tasks to set up your database server environments before beginning the migration process:

Required Information

- ☐ Gather the following information for your current and 6.5 environments:
  - Server name
  - Server Internet Protocol (IP) address
  - System administrator or database owner password

Establishing Connectivity

You connect the migration workstation with the databases in both your current and 6.5 environments.

Operating System Connectivity

If you migrating from…	And to…	Then the migration workstation must connect to the…
UNIX operating system and Sybase SQL Server DBMS	UNIX operating system and Sybase Adaptive Server DBMS	Current server, 6.5 file server, and UNIX (rexec).
Microsoft NT Server and either Sybase SQL Server DBMS or Microsoft SQL Server	Microsoft NT Server and either Sybase SQL Server DBMS or Microsoft SQL Server	Current server and 6.5 file server.

UNIX

If your current and 6.5 operating system is UNIX, you can choose whether to store the data (exported by the migration process and stored in .bcp files) on your 6.5 file server or your UNIX server where Job Server is installed.

Microsoft NT Server

If your current or 6.5 operating system is not UNIX, the migration process exports data from your current database server and stores it on the 6.5 file server.

DBMS Connectivity

☐ Ensure that available log space is maximized on your current and 6.5 DBMS by using the following commands:

Use this command...	To...
dump database *db_name*	Back up both the database and its transaction log.
dump tran database *db_name* **with no_log**	Clear the log of the completed transactions.

☐ Verify that the workstation you plan to use for 6.5 migration can connect to your current DBMS server.

If your current DBMS is…	then you must have …
Sybase	Sybase Open Client 12.0 (32 bit).
Microsoft SQL Server	Microsoft Client (32 bit).

Troubleshooting the Connection

If your 6.5 DBMS is...	Then check the...
Sybase Adaptive Server running on a UNIX server	Interfaces file.
SYBASE Adaptive Server running on a Microsoft NT Server	Dsedit utility located on the migration workstation.
Microsoft SQL Server running on a Microsoft NT Server	Microsoft SQL Client Configuration Utility.

Changing the Interfaces File

For instructions on changing interfaces, see the system administrator's guide for Sybase Adaptive Server.

Migration Workstation Connectivity

☐ Verify that the migration workstation can connect to the current and 6.5 database servers.

Read and Write Privileges

☐ Ensure that you have both read and write privileges for the drive and directory on the file server where SmartStream 6.5 resides.

Initializing SmartStream Tables

Purpose

This program

- Clears the tables to remove all data
- Loads minimum required data into the 6.5 tables.

Running the SmartStream Table Initialization Setup Program

Run the SmartStream Table Initialization Setup program on the destination server using the following program:

*drive:**directory***dbms\setup.exe**

Where

- *drive* is the drive where SmartStream 6.5 is installed
- *directory* is the directory where SmartStream 6.5 files reside

Backing Up Your Environments

Back up your current and 6.5 environments.

More Information

For more information, see the SmartStream Library.

3 Tailoring Your Accounting Key

Chapter Contents

3-1 About Tailoring Your Accounting Key
3-2 Considerations for Tailoring Your Accounting Key
3-3 Prerequisite Tasks
3-4 Process Overview
3-5 Copying the Current udak.ini File
3-6 Tailoring Your Accounting Key
3-7 Applying Your Accounting Key
3-8 Building Runtime Library
3-10 Running the Accounting Key Migration Program

About Tailoring Your Accounting Key

This chapter provides information about how to tailor your accounting key for your 6.5 environment. You perform these tasks before migrating data so your tables and databases match your accounting key when you migrate them.

Considerations for Tailoring Your Accounting Key

Tailor your accounting key for your 6.5 environment if you

- Tailored your accounting key for your current production environment
- Are adding products to your 6.5 environment that use the user-defined accounting key.

Column Names

You can migrate SmartStream data successfully only if you use the same column names in your 6.5 environment that you use in your current environment.

Prerequisite Tasks

Perform the following tasks before beginning any procedures for migrating your accounting key:

- ☐ Language kit customers must ensure that language kits are loaded to their appropriate database servers. If you perform a file server installation with language kits, but do not load the language kits, errors occur when you tailor your accounting key.
- ☐ Ensure that the workstation you are using to run the User-Defined Accounting Key program has SmartStream 6.5 client installed.
- ☐ Initialize your SmartStream 6.5 tables to prepare them for migration and tailoring.
- ☐ Ensure that the workstation you are using to run the User-Defined Accounting Key program has PowerBuilder 5.0.4 installed.

Process Overview

The following table describes the process for migrating your SmartStream accounting key:

Stage	Description
1	Copy the udak.ini file from your current environment to your 6.5 environment.
2	Tailor your accounting key for your 6.5 environment.
3	Apply the accounting key.
4	Regenerate your dynamic run-time library (.pbd file).
5	Run the Accounting Key Migration utility to convert all programs used to export and import data during the migration process.

Copying the Current udak.ini File

The following table describes how to copy the udak.ini file from your current environment to your 6.5 environment:

Copy the udak.ini file from this directory...	**To this directory...**
*drive:**directory***dbms\udak** Where ▪ *drive* is the drive where your current version of SmartStream is installed ▪ *directory* is the directory where your current SmartStream files reside.	*drive:**directory***dbms\udak** Where ▪ *drive* is the drive where SmartStream 6.5 is installed ▪ *directory* is the directory where SmartStream 6.5 files reside

Tailoring Your Accounting Key

Running the User-Defined Accounting Key Program

Run the User-Defined Accounting Key program separately for each of the following products in the order shown:

1. All currently licensed products
2. Consolidations, if currently licensed
3. All newly licensed products
4. Consolidations, if newly licensed

Setup Options

You choose specific options each time you run the User-Defined Accounting Key program. These options are as follows:

For…	Choose…
Database Server Status	Available - Full install completed.
Run Mode	Full - Process all UDAK objects for a given Product.

Procedure

Run the following program:

*drive**directory***dbms\udak\udak.exe**

Where

- *drive* is the drive where SmartStream 6.5 is installed
- *directory* is the directory where SmartStream 6.5 files reside

Verifying Your Tailored Accounting Key

Complete the following tasks to verify your tailored accounting key:

- Perform the activities in the User-Defined Accounting Key program for reviewing or confirming your selections
- Check the \dbms\udak\udak.log file for errors

Applying Your Accounting Key

You run this program to apply your tailored accounting key to tables, stored procedures, and triggers.

Run the following program:

*drive**directory***dbms\udak\setup.exe**

Where

- *drive* is the drive where SmartStream 6.5 is installed
- *directory* is the directory where SmartStream 6.5 files reside

Building Runtime Library

After applying your accounting key, build the Runtime Library (udak.pbd).

Change Application to udak.pbl

The current application in PowerBuilder 5.0 must be the udak.pbl before you can build the Runtime Library (udak.pbd).

To change the application to udak.pbl, complete the following steps:

Step	Action
1	Open PowerBuilder 5.0 and click the second Application icon. **Warning**: The first two icons in PowerBuilder 5.0 are for Application. Be sure to click the **second** Application icon.
2	Select File and click on Open. **Result**: The Select Application Library dialog box appears.
3	Find and select the udak.pbl in the \ss directory.
4	Click Open. **Result**: The Select Application dialog box appears.
5	Click OK.

Now that you have changed your application to udak.pbl, you can build the Runtime Library.

Build the Runtime Library

Warning: Ensure that all painters, except the Library painter, are closed, or PowerBuilder will return the error, **PB cannot rebuild while painter is open**.

To build the Runtime Library, complete the following steps:

Step	Action
1	Open PowerBuilder 5.0 and click on the Library icon.
2	Select the Library menu and click on Optimize.
3	After the Library has been optimized, select the Library menu again and click on Build Runtime Library. **Result**: The Build Runtime Library dialog box appears.
4	Clear the Machine Code checkbox and click Ok. Leave Resource Filename blank. **Result**: The Library dialog box appears.

Step	Action
5	You will be prompted, Replace existing *path*/udak.pbd? Click Yes. **Result**: The Runtime Library (udak.pbd) is built.

If the Machine Code checkbox is not cleared, PowerBuilder generates udak.dll instead of udak.pbd. Repeat steps 1 through 5 and clear the Machine Code checkbox.

Language Kits

The preceding steps must be completed for the udak.pbl in each language kit \ss directory.

Running the Accounting Key Migration Program

After tailoring your accounting key for your 6.5 environment, run the Accounting Key Migration utility. This utility converts the files used to export and import data during migration.

Setup Options

Select the following setup options:

For…	Enter or Choose…
Database Server Status	Choose **Available - Full install completed**.
Server	The name of your 6.5 database server
Logon ID	Your logon ID for the 6.5 database server
Password	Your password for the 6.5 database server

Procedure

Run the following program:

*drive:**directory***dbms\udak\udakmgrt.exe**

Where

- *drive* is the drive where SmartStream 6.5 is installed
- *directory* is the directory where SmartStream 6.5 files reside.

Results

On the file server, the Accounting Key Migration utility

- Reads the udak.ini file in the *drive:**directory***dbms\udak** directory to get the SmartStream 6.5 column names
- Reads the source files in the *drive:**directory***dbms\udak*****family*\ directory and updates the *drive:**directory***dbms*****family*\ files
- Converts the migration program to use your user-defined accounting key
- Processes only products you configured using the User-Defined Accounting Key program.

Troubleshooting

Check the udakmgrt.log file for processing errors when you complete the configuration process.

4 Preparing and Migrating

Chapter Contents

4-1 Before You Begin
4-2 About Preparing and Migrating
4-3 Prerequisite Tasks for Migrating SmartStream Products and Data
4-5 Running the SmartStream Migration Program
4-6 Tailoring Your Accounting Key

Before You Begin

Before migrating data to SmartStream 6.5, complete the tasks discussed in all previous chapters of this guide.

Worksheets

Use the migration worksheets that are provided in Appendix A to help plan your migration to SmartStream 6.5.

About Preparing and Migrating

This chapter describes how to

- Perform the prerequisite tasks
- Run the SmartStream Migration program.

Migration Process

The SmartStream Migration program

- Exports product data from your current environment
- Imports product data into your 6.5 environment.

Migration Series

The entire migration process is known as a *migration series*.

Example

If you set up a 6.5 test environment and successfully export and import your products and data, you have completed a migration series. When you are ready to migrate to your production environment, you complete another migration series.

Prerequisite Tasks for Migrating SmartStream Products and Data

UNIX Requirements

If you are migrating in the UNIX environment, perform the following tasks:

- ☐ Ensure that 6.5 SmartStream Job Server is installed. For installation instructions, see the Installing SmartStream Job Server chapters in the SmartStream *Installation Guide*.
- ☐ If you have not done so, set up PC-to-UNIX connectivity for Job Server. Follow the instructions for installing Job Server in a UNIX environment in the Installing Job Server chapter of the SmartStream *Installation Guide*.

SmartStream Budget Workbench

- ☐ Ensure that all SmartStream Budget WorkBench sessions are closed and that the WorkBench information is exported to the server.
- ☐ Use the Budget Checkout List window to make sure that none of the budgets have a status of In Use.
- ☐ Lock all budgets until the migration process is complete.

To export WorkBench information, each user should choose the Export action from the WorkBench Data Access window. Do not start other WorkBench sessions until the migration process is complete.

SmartStream Human Resources

If you tailored audit tables in your current environment using Audit Builder, before you migrate from SmartStream 6.0 Service Pack 3 to SmartStream 6.5, you must decide whether you want to migrate the audit information from your tailored audit tables.

Migrating Audit Information Automatically

Unlike the migration process for previous releases of SmartStream, the migration process for SmartStream 6.5 automatically migrates audit information from audit tables.

Choosing to Migrate Audit Information from Tailored Audit Tables

If you used Audit Builder to tailor audit tables in your current environment, you need to make the same changes in your SmartStream 6.5 environment if you want to migrate the audit information from these tailored audit tables. Failure to tailor the tables in the new environment causes an error to occur during the import process because the number of columns recorded in the .bcp files for tailored audit tables does not match the number of columns for the corresponding delivered audit tables.

To migrate information from your tailored audit tables, after you install SmartStream 6.5, you must

1. Run the Audit Builder program in your SmartStream 6.5 environment to generate the SQL code for the audit tables and triggers to match the tables from the previous version.

2. Load the tables and triggers the Audit Builder program generates to your server.

Notes:

- To determine which audit tables are added or changed for 6.5, see Appendix B, Table Changes.
- The tables from the previous version must match the tables in the new version. If the tables do not match, your audit information cannot be properly restored.
- If you need to audit other columns that you did not audit before, you cannot copy the audit information from the previous version. Process the audit information from the previous version before you start processing with the new version.

Choosing Not to Migrate Audit Information from Tailored Audit Tables

If you do not want to migrate the audit information from tailored audit tables in your current environment, you do not need to tailor audit tables in your SmartStream 6.5 environment using Audit Builder. However, you must complete one of the following tasks:

- Truncate the data in the tailored audit tables before running the export
- Delete the .bcp files for these tables generated during the export before running the import.

Failure to complete one of the preceding tasks causes an error to occur during the import process because the number of columns recorded in the .bcp files for tailored audit tables does not match the number of columns for the corresponding delivered audit tables.

Running the SmartStream Migration Program

The SmartStream Migration program is run twice: once to export data and a second time to import data into your 6.5 environment.

Backing Up Data

Back up your current and 6.5 environments before you run the SmartStream Migration program.

Functions and Process

The SmartStream Migration program migrates data in the following stages:

Stage	The SmartStream Migration program...
1	Exports the data from your current SmartStream database server.
2	Stores data in .bcp files.
3	Imports the data from the extracted .bcp files to the 6.5 database server.

Procedure

Do not enter a slash as the first character of a path or directory. Entering a slash incorrectly causes an error.

Run the following program:

*drive:**directory***dbms\smartmig\setup.exe**

Where

- *drive* is the drive where SmartStream 6.5 is installed
- *directory* is the directory where SmartStream 6.5 files reside.

SmartStream Client Reinstallation

Reinstall the SmartStream client on the migration workstation after you finish migrating to your SmartStream 6.5 environment.

Tailoring Your Accounting Key

After the migration process is complete, run udak.exe to process architecture tables. You must run this process at least once. If you have installed Consolidations, you need to run udak.exe a second time.

UDAK Options

You choose specific options when you run the User-Defined Accounting Key program. These options are as follows:

For…	Choose…
Database Server Status	Available – Full Install Completed.
Processing Level	All Products (except Consolidations).
Run Mode	Special – Process the following object class: Architecture Tables.

For Consolidations Users Only - UDAK Options

The UDAK options for Consolidations users are as follows:

For…	Choose…
Database Server Status	Available – Full Install Completed.
Processing Level	Consolidations.
Run Mode	Special – Process the following object class: Architecture Tables.

5 Post-Migration Tasks

Chapter Contents

5-1 Before You Begin
5-2 About Post-Migration Tasks
5-3 Results of Running the Migration Program
5-4 Using Files Generated by the Migration Program
5-6 Troubleshooting
5-7 Post-Migration Tasks for SmartStream Products
5-13 Verifying Successful Migration
5-15 Migrating Non-SmartStream Data

Before You Begin

Complete the tasks in the previous chapters of this guide before beginning post-migration tasks.

About Post-Migration Tasks

You perform several tasks after running the SmartStream Migration program to

- Verify that the program exported or imported data accurately and completely
- Complete the migration process for SmartStream products that have additional requirements
- Migrate data not processed by the program.

The migration process is not complete until these tasks are accomplished.

Results of Running the Migration Program

Export Process

The export process generates .bcp files that contain the data for each family that it migrates.

Import Process

The import process

- Truncates the tables in the 6.5 environment.
- Loads the extracted .bcp files to your 6.5 environment.
- Adds migrated data into the tables that did not change. The number of rows exported will match the number imported, except for tables with minimal required data. For these tables, a difference in the number of rows does not necessarily matter. See Verifying Successful Migration later in this chapter.
- Adds default values for the new fields to the migrated data for tables with new fields. The number of rows exported will match the number imported.
- Provides SQL code for the tables that change to determine correct values and adds the appropriate values to the migrated data.
- Reloads the static initial data.

Using Files Generated by the Migration Program

The migration program generates the following types of files:

- Error
- Output
- Restart

File Location

Files generated by the…	Are stored in the…
Export process	*drive:**directory***instenv\env\smartmig\export** directory.
Import process	*drive:**directory***instenv\env\smartmig\import** directory.

Error Files

The migration program generates error files (.err) when errors occur for the export and import processes. Diagnose the problem and correct the error before continuing the migration process.

Output Files

Output files (.out) contain a record of errors or operations executed by the migration process. The following table describes each type of output file:

This type of output file…	Describes…	And is stored in this location…
bcperror.out	A .bcp file problem that caused an error during the export or import process	/**dbms/***family* directory.
family.out	Each operation performed to migrate a family, such as exporting, dropping triggers, and loading data	▪ Export Process *drive:**directory***instenv\env\smartmig\export** ▪ Import Process *drive:**directory***instenv\env\smartmig\import**

Table Rows

Each output file displays the number of rows for each database table that is either exported or imported.

Row Locations

The row locations of database tables in export output files might differ from those in the import output files.

Restart Files

When an error occurs while the migration program is running, a restart file (.rst) is generated for the export and import processes. This file identifies where to start the migration program after you correct the error. Do not delete these files.

Troubleshooting

If an error occurs while a .bcp file is processed during the import process, an error window displays the name of the table that caused the error.

Procedure

Complete the following steps to correct the error and continue the migration program:

- Clear the table on the 6.5 server where the error occurred
- Correct the error
- Choose Restart to restart the migration program from the point where the error occurred

Note: If you do not clear the table, duplicate insert errors occur when you restart the migration program.

Post-Migration Tasks for SmartStream Products

The following sections discuss tasks you must complete after migration.

SmartStream Client

Reinstall the SmartStream client on all workstations after you finish migrating to your SmartStream 6.5 environment.

If you are using a Microsoft SQL Server database management system, you must install Microsoft Distributed Transaction Coordinator (DTC) on the SmartStream client. For information about installing the DTC software, see the readme.txt file at this address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6

You can find the DTC setup program at the following address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6/i386

Job Server

Perform the following tasks to complete the migration program for Job Server:

Poll Configuration

If you are using APPC for SmartStream Connect 6.5 communications, verify that the APPC communication information is correct. Use the APPC view of the Poll Configuration window to verify this information.

More Information

For information about the Poll Configuration window, see the SmartStream Library.

Migrated Jobs and Classes

Consider the following information:

- When migrating jobs to SmartStream 6.5, retain the associated classes. If you change classes or add new classes, you have to change or add jobs.
- If your migrated jobs contain steps that run executable, Job Server, or script files, ensure that the file and path names are valid on the SmartStream 6.5 server.

Microsoft DTC Installation

If you are using a Microsoft SQL Server database management system, you must also install Microsoft DTC on the Job Server workstation. See the addresses for the readme.txt file and the setup program mentioned earlier.

SmartStream Reporting Tools

After completing the migration program, run Locations and Data Sources to update the server for any location that resides on a new server.

SmartStream Payroll

After completing the migration program, you set up the ALLTAX2 data files on the job server where you installed the Payroll components of Job Server.

More Information For information about setting up the ALLTAX2 data files, see the *Payroll Tax* guide in the SmartStream Library.

SmartStream Purchasing and Receiving

After migration, run the viewgrnt.sql, tblegrnt.sql, or both, to grant permissions for new objects in the Procurement databases. These SQL files reside in the \dbms directory on the file server. This is not an automated process. You must edit the SQL files with the proper security groups for your organization.

Supplies Management

For each migrated site, add the following fields to the Site window:

On the…	Add…
Main View	Purchase Site.
Site Policy View	Ledger Entity
	Maintain Average Cost.

Warning: Failure to perform this procedure causes serious errors.

Language and Country Codes

The migration program adds all available countries and languages to the Country Master and Language Master tables in the DBSCOMMON database. Your system administrator can use the Country Selection and Language Selection windows to add the countries and languages that you want SmartStream to use from the master tables to the Active List and to the Country Code and Language Code tables.

More Information For information about selecting Language and Country Codes, see the SmartStream Library.

Security

Activities may be added or deleted in the latest version of SmartStream. These activities cannot be automatically added to or deleted from your security groups because your enterprise must maintain security profiles.

Migrating Reporting Tools/The Xmove Utility

If you are not migrating Reporting Tools, skip this section.

The SmartStream Migration program migrates data for reporting tools. It cannot, however, migrate the **rrp_hdr** and **rmr_report_hdr tables** in the DBSosst database. The Xmove utility migrates these tables and completes the migration.

Running Xmove

To run Xmove, complete the following steps:

Step	Action
1	Execute Xmove.exe from DBMS\Xmove32 directory on your SmartStream 6.5 file server.
2	Enter all requested information for the current and destination servers.
3	Select the appropriate database platform for each server and click OK. **Result**: The program starts running.
4	Click Cancel to exit.

Errors

If an error occurs, use the following table of error messages and reasons for the error.

Error Message	Reason
Unable to connect to SQL server	Wrong username or password used
	report_image is empty (FROM table)
	TO table is empty (recordset is empty)
	Entry not in SQL.ini file
	ServerType not correct
The database was not found	Database does not exist
SQL select statement failed	Table does not exist (SQL error)
	Field does not exist (SQL error)
Unable to write text to database field	Sybase Database full
	Sybase Syslogs full
	MS Syslogs full

Importing Tab Order Specifications for Allocations Reporting

To import tab order specifications for the Allocations reports that use them, complete the following steps:

Step	Action
1	Open the fal32.mdb by accessing the Allocations Reporting window.
2	Attach tables.
3	Customize the accounting key of the .mdb.

Step	Action
4	Press **F11** to access the Microsoft Access window.
5	Verify the proper database connection in one of the following ways: ▪ Open the fal_alloc_distn_bal_import table and ensure that columns at the end of the table reflect the customized accounting key. ▪ Click the Tools menu, click Options, and then click the Advanced tab. Ensure that the Command-Line Arguments setting has the correct server.
6	On the Microsoft Access window, click the File menu, go to Get External Data, and then click Import. **Result:** The Import dialog box appears.
7	Select Text Files in the Files of Type field, enter *.ojb in the File Name field, and press **Enter**.
8	Select a text file created in Allocations, and click Import. **Result:** The Import Text Wizard is displayed.
9	Ensure that the Delimited option is selected, and click Next. **Result:** The next set of Wizard options is displayed.
10	Click the First Row Contains Field Names option and click Advanced. **Result:** The Import Specification dialog box is displayed.
11	Find your accounting key elements in the list and ensure that they are assigned Text as the data type. Also, ensure that all entity fields are assigned Text as the data type. **Note:** The fields that require changing are data dependent. Field types for the .ojb file must match those found in the fal_alloc_distn_jrnls_import table. See the columns and data types for that table following this procedure.
12	Change the label of the posting_pd column to _posting_pd.
13	Click Save As. **Result:** The Save Import/Export Specification dialog box is displayed.
14	Type FAL_Tab_Spec_Ojb (case sensitive), and click OK.
15	Click Cancel. Then click Cancel again to return to the main Access window.
16	Repeat steps 7 through 15, this time selecting a *.olb file name and type. Save the new specification as FAL_Tab_Spec_Olb (case sensitive). For the .olb file, ensure that all ldr_amt fields are assigned Currency as the data type. **Note:** The fields that require changing are data dependent. Field types for the .olb file must match those found in the fal_alloc_distn_bal_import table. See the columns and data types for that table following this procedure.

Fal_alloc_distn_jrnls_import Table

Column	Data Type
_rqst_id	Text
_rqst_seq_number	Number
_cycle_id	Text
_seq_nbr	Number
_alloc_entity_id	Text
_variable_pool_id	Text
_source_pool_id	Text
_distn_id	Text
_run_date	datetime
ldr_entity_id	Text
jrnl_id	Text
eff_date	datetime
jrnl_seq_nbr	Number
suspense_seq_nbr	Number
accrl_rvsl_ind	Text
jrnl_line_nbr	Number
jrnl_line_status	Text
line_ldr_entity_id	Text
date_created	datetime
amt_class_1	Text
_posting_pd	Number
jrnl_origin_code	Text
descp	Text
prim_dr_cr_code	Text
trans_curr_code	Text
curr_rate_type	Text
prim_curr_code	Text
trans_to_prim_exchange_rate	Number
curr_converted_ind	Text
trans_amt	Currency
curr_rate_date	datetime
user_id	Text
All accounting key fields	Text

FAL_alloc_distn_bal_import Table

Column	Data Type
_rqst_id	Text
_rqst_seq_number	Number
_cycle_id	Text
_seq_nbr	Number
_tbl_format_code	Text
_alloc_entity_id	Text
_variable_pool_id	Text
_source_pool_id	Text
_distn_id	Text
_run_date	datetime
ldr_entity_id	Text
curr_type	Text
curr_code	Text
equiv_curr_code	Text
processing_yr	Number
amt_class_type	Text
dr_cr_code	Text
_update_bal_code	Text
_origin	Text
_posting_pd	Number
cur_pd_amt	Currency
ldr_amt_1 through ldr_amt_14	Currency
All accounting key fields	Text

Testing

If you do preliminary testing of your import specifications files, be sure to delete any test rows from your Access table.

Verifying Successful Migration

You can verify that data migrated successfully using

- Output files
- Reports
- Activities.

Using Output Files

Review output files each time you run the SmartStream Migration program to verify that no errors occurred and all data processed.

Comparing the Number of Table Rows

Compare the number of rows for each table in the export output file with the number of rows in the import output file. If they do not match, the data might not have migrated successfully.

However, for tables with minimal required data that you can reload, and in some cases update, the number of rows can be different without indicating a problem. For a list of these tables, see Appendix C, Tables With Minimal Required Data.

Using Reports

Generate reports in the current environment and the 6.5 environment, then compare the output to ensure that the reports match.

The following reports can be used to verify the migration:

Product	Report
Asset Management	Expense Ledger
	Cost Summary
Ledger	Chart of Accounts
	Account Balance
Payables	Aged Unpaid Balance
	AP Liability
Receivables	Aged Trial Balance

Using Activities

Run activities in your current environment and your 6.5 environment, then ensure that the results of the activities are the same.

Adding Security

You might need to add data security for activities added to your 6.5 environment before you access them.

The following activities can be used to verify the migration:

Product	Activity
Asset Management	Asset Category Tables
	Asset Entity Policy
	Asset Location Tables
	Assets
Shared Components	Enterprise Policy
Ledger	Account Balance
Human Resources	Benefits Plan
	Employee Assignment
	Employee Status
	Payroll Run Control
Payables	Invoice
	Payment Details
Receivables	Receivable Account
	Receivable Allocation History
	Receivable Document (and views)
	Remittance

Migrating Non-SmartStream Data

Any objects, databases, or Microsoft Access reports created in your current environment are not automatically migrated.

Objects and Databases

To migrate non-SmartStream objects and databases in your current environment to the 6.5 environment (see What Is and Is Not Migrated in Chapter 1, Overview), use utilities provided by a product's vendor. For example, to copy table data, you can use the Sybase bulk copy utility (BCP).

Consult the following references:

- *System Administration Guide* for Sybase Adaptive Server Enterprise
- SQL Server Utility Programs for SmartStream information

Microsoft Access Reports

To migrate Microsoft Access reports, export the .mdb files you added to your current production environment and import them into your 6.5 environment using Microsoft Access.

6 Completing the Migration Process

Chapter Contents

6-1 About Completing the Migration Process
6-2 Process Overview
6-3 Reloading New Products
6-4 Reloading Language Kits
6-5 Tailoring Your Accounting Key

About Completing the Migration Process

This chapter describes how to perform the tasks that complete the migration process. You must complete the tasks discussed in this chapter before your 6.5 environment is ready for production.

Audience

Complete these tasks if your enterprise

- Licensed new products
- Has language kits
- Tailored your accounting key.

Process Overview

The following table describes the process for completing the migration process:

Stage	Description
1	If you licensed any new products and loaded them **before** migration, reload them after migration. Otherwise, install new products after migration.
2	If you licensed any language kits, reload them to the appropriate database server.
3	If you tailored your accounting key, run the udak.exe program in Special mode, using the Architecture Tables option.

Reloading New Products

If you licensed new products with SmartStream 6.5 and loaded them before migrating, reload them after the migration. Do not load education data.

If you licensed new products with SmartStream 6.5 but did not load them before migrating, install them after the migration.

More Information

See the SmartStream *Installation Guide* for more information about installing new products.

Reloading Language Kits

If you licensed language kits for SmartStream 6.5, reload the language kits (for all products) to the appropriate DBMS after reloading any new products as applicable.

Language versions of platform data (for example, error messages, file open parameters) are not automatically migrated. The migration process truncates all platform data and migrates it from the previous version to SmartStream 6.5. The language kits must be reloaded to reinstall language specific plaform data.

More Information

See the SmartStream *Installation Guide* for information about loading language kits.

Tailoring Your Accounting Key

If you tailored your accounting key for SmartStream 6.5, run the udak.exe program in Special mode, using the Architecture Tables option, after reloading new products and language kits as applicable.

More Information

For detailed information about tailoring your accounting key, see the SmartStream Library.

Appendix A Migration Worksheets

Appendix Contents

A-1 About Migration Worksheets
A-2 Migration Worksheet: Single-Server Environment

About Migration Worksheets

This appendix contains worksheets that are designed to help you determine the information you need during the migration process, such as

- Environment variables
- Product information.

Planning Your Migration

If you use worksheets to plan your migration, you minimize the risk of errors throughout the migration process. Print these worksheets so you can record and refer to the information.

Migration Worksheet

Export Process

SmartStream Environment

Directory where SmartStream is installed in the current environment:

_____

Name of the environment you are exporting:_____

Database Server Information

Current database server name:_____

SA role ID for this database server:_____

SA password for this database server:_____

Product Selection

Use the following table to identify the products to export:

Product	Are you exporting this product?	
Background Load	Yes	No
Cost Management	Yes	No
Items	Yes	No
Euro	Yes	No
Funds Control	Yes	No
Procurement Common	Yes	No
Projects	Yes	No
Shared Components	Yes	No
SmartStream	Yes	No
SmartStream Allocations	Yes	No
SmartStream Asset Management	Yes	No
SmartStream Budget	Yes	No
SmartStream Builder	Yes	No
SmartStream Connect	Yes	No
SmartStream Consolidations	Yes	No
SmartStream Ledger	Yes	No
SmartStream Payables	Yes	No
SmartStream Payroll	Yes	No
SmartStream Personnel	Yes	No

Product	Are you exporting this product?	
SmartStream Purchasing	Yes	No
SmartStream Receivables	Yes	No
SmartStream Receiving	Yes	No
Supplies Management	Yes	No
Unit of Measure	Yes	No

UNIX Server Information

If you are running the migration process on a UNIX server, you need the following additional information:

UNIX host name:_____

UNIX host logon user ID:_____

UNIX host user password:_____

UNIX directory where Job Server was installed:

_____

Location of the SYBASE interfaces file:_____

Import Process

Database Server Information

The database server name and the SA role ID fields automatically display the information you entered during the export process.

SA password for this database server:_____

UNIX Server Information

If you are running the migration process on a UNIX server, you need the following additional information:

The UNIX host name and the UNIX host user ID fields automatically display the information you entered during the export process.

UNIX host user password:_____

Product Selection

Use the following table to list the products you are importing:

Product	Are you importing this product?	
Background Load	Yes	No
Cost Management	Yes	No
Items	Yes	No
Euro	Yes	No
Funds Control	Yes	No
Procurement Common	Yes	No
Projects	Yes	No
Shared Components	Yes	No
SmartStream	Yes	No
SmartStream Allocations	Yes	No
SmartStream Asset Management	Yes	No
SmartStream Budget	Yes	No
SmartStream Builder	Yes	No
SmartStream Connect	Yes	No
SmartStream Consolidations	Yes	No
SmartStream Ledger	Yes	No
SmartStream Payables	Yes	No
SmartStream Payroll	Yes	No
SmartStream Personnel	Yes	No
SmartStream Purchasing	Yes	No
SmartStream Receivables	Yes	No
SmartStream Receiving	Yes	No
Supplies Management	Yes	No
Unit of Measure	Yes	No

Use the following table to enter the server logon information for the SmartStream 6.5 database:

Name of 6.5 Database Server	SA User ID	SA Password

UNIX Server Information

If you are running the migration process on a UNIX server, you need the following additional information:

UNIX host name:_____

UNIX host logon user ID:_____

UNIX host user password:_____

UNIX directory where Job Server was installed:

_____

Location of the SYBASE Interfaces file:_____

Import Process

Database Server Information

The Database Server Name and the SA Role ID fields automatically display the information you entered during the export process.

Password for this database server:_____

UNIX Server Information

If you are running the migration process on a UNIX server, you need the following additional information:

The UNIX host name and the UNIX host user ID fields automatically display the information you entered during the export process.

UNIX host user password:_____

Use the following table to enter the name of the SmartStream 6.5 database servers where you want to import data:

Name of 6.5 Database Server	SA User ID	SA Password

Appendix B Table Changes

Appendix Contents

B-1 About Table Changes
B-1 Changed Tables for SmartStream 6.5
B-5 Dropped Tables for SmartStream 6.5
B-6 New Tables for SmartStream 6.5

About Table Changes

This appendix lists tables changed between SmartStream 6.0 Service Pack 3 and SmartStream 6.5, tables dropped for SmartStream 6.5, and new tables for SmartStream 6.5.

Changed Tables for SmartStream 6.5

The following tables were changed between SmartStream 6.0 Service Pack 3 and SmartStream 6.5.

Shared Components

Table Family	Database	Table ID	Table Name
bank	DBSbank	bk2r	remit_clearance_comnt_archive
		bk3r	deposit_clearance_comnt_arch
		bkdr	deposit_clearance_archive
		bkrr	remit_clearance_archive
		dcwc	deposit_clearance_candidate_wk
		rcwc	remit_clearance_candidate_wk
cand	DBScand	cacr	cr_acct_candidate
		cadc	deposit_clearance_candidate
		cara	recv_acct_candidate

Table Family	Database	Table ID	Table Name
		carc	remit_clearance_candidate
		card	recv_doc_candidate
		carm	remit_candidate
vend	DBSvend	vend	vendor_loc_payables
vmst	DBSvmst	vips	vendor_loc_item_purchase_site
		vitm	vendor_loc_item

Funds Control

Table Family	Database	Table ID	Table Name
fund	DBSfund	fcbl	fund_balance
		fcdt	deleted_fund_txns_work
		fctx	fund_transactions
		fcxa	fund_transactions_audit

Ledger

Table Family	Database	Table ID	Table Name
glep	DBSglep	jeas	jrnl_entry_apprvl_status

Personnel

Table Family	Database	Table ID	Table Name
hrpn	DBShrpn	hal7	emp_pin_aud
		ham9	location_aud
		heeo	eeo_reporting_establishment
		hema	employee_aud
		hina	individual_aud
		hind	individual
		hloc	location
		hmpl	employee
		hpin	emp_pin
		huee	eeo_rptg_establishment_aud
hrac	DBShrac	hveh	work_vets_100_hiring_location
		hvep	work_vets_100_parent_company
		hver	work_vets_100_report_extract

Purchasing

Table Family	Database	Table ID	Table Name
reqm	DBSreqm	srhm	sched_rcpt

Receivables

Table Family	Database	Table ID	Table Name
cred	DBScred	crar	cr_acct_archive
		crcr	cr_acct_comnt_archive
		crdr	cr_acct_days_past_terms_arch
		crlr	dso_calc_credit_acct_archive
		crsr	acct_remit_statistics_archive
		crtr	cr_acct_contact_archive
		crvr	acct_recv_statistics_archive
		crwc	cr_acct_candidate_wk
rrcv	DBSrrcv	rawc	recv_acct_candidate_wk
		rcad	remit_recv_adj_activity
		rcap	remit_recv_alloc_activity
		rcbt	remit_trans
		rcmt	remit
		rdpt	deposit
		rdwc	recv_doc_candidate_wk
		rmwc	remit_candidate_wk
		rr1r	recv_doc_jrnl_line_archive
		rr2r	recv_doc_line_archive
		rr3r	recv_doc_line_tax_archive
		rr4r	remit_recv_adj_act_comnt_arch
		rr5r	remit_comnt_archive
		rr6r	deposit_comnt_archive
		rrar	recv_acct_archive
		rrbr	recv_acct_bank_acct_archive
		rrcr	recv_acct_comnt_archive
		rrcv	recv_doc
		rrdr	recv_doc_archive
		rrer	remit_recv_adj_activity_arch

Table Family	Database	Table ID	Table Name
		rrgr	recv_ctrl_grp_archive
		rrir	recv_acct_alternate_id_archive
		rrjr	recv_doc_jrnl_ctrl_archive
		rrlr	dso_calc_recv_acct_archive
		rrmr	recv_doc_comnt_archive
		rrnr	recv_acct_contact_archive
		rror	remit_recv_alloc_activity_arch
		rrpr	deposit_archive
		rrrr	remit_archive
		rrtr	recv_doc_activity_archive
		rrvr	dso_recv_input_archive
		rrxr	recv_doc_tax_archive

Dropped Tables for SmartStream 6.5

The following tables were dropped for SmartStream 6.5.

Shared Components

Table Family	Database	Table ID	Table Name
cand	DBScand	shcm	shipment_cand

Funds Control

Table Family	Database	Table ID	Table Name
fund	DBSfund	fcm1	fund_acct_migr
		fcm2	fund_budget_migr

Purchasing

Table Family	Database	Table ID	Table Name
puen	DBSpuen	pojc	purchase_order_jrnl_cntrl

New Tables for SmartStream 6.5

The following tables are new for SmartStream 6.5.

SmartStream

Table Family	Database	Table ID	Table Name
mesm	DBSCOMMON	objc	object_control
		objt	object_control_text

Shared Components

Table Family	Database	Table ID	Table Name
cand	DBScand	cabl	blanket_order_candidate
		cais	item_stockroom_candidate
		cait	item_ candidate
		cako	supplies_kit_order_candidate
		capo	purchase_order_candidate
		carq	req_candidate
		cart	return_header_candidate
		casr	sched_rcpt_candidate
		cavm	vendor_candidate
		cims	vendor_loc_item_orig_candidate
		civh	cost_inv_hist_candidate
vend	DBSvend	vena	vendor_loc_payables_archive
		vnba	vendor_loc_bank_acct_archive
		vnca	vendor_loc_payables_comnt_arch
		vnpa	vendor_loc_pd_history_tot_arch
		vnta	vendor_loc_history_tot_archive
		vnxa	vendor_loc_tax_archive
vmst	DBSvmst	vada	vendor_loc_addr_archive
		vasa	vendor_loc_item_amt_stat_arch
		vcla	vendor_loc_item_classn_arch
		vcma	vendor_loc_item_comnt_arch
		vmca	vendor_loc_contact_archive
		vmfa	vendor_loc_item_manufact_arch
		vmla	vendor_loc_archive
		vmsa	vendor_loc_item_origin_arch

Table Family	Database	Table ID	Table Name
		vmta	vendor_archive
		vmxa	vendor_loc_site_xref_archive
		vnaa	vendor_loc_acctg_distn_arch
		vnoa	vendor_order_amt_stats_arch
		vnqa	vendor_order_qty_stats_arch
		vp1a	vendor_loc_po_com_amt_sts_arch
		vp2a	vendor_loc_commodity_archive
		vpca	vendor_loc_item_price_arch
		vpda	vendor_perf_ratings_dtl_arch
		vpha	vendor_perf_ratings_hdr_arch
		vpra	vendor_perf_ratings_cmnt_arch
		vpsa	vendor_loc_item_pur_site_arch
		vsta	vendor_loc_item_stats_arch
		vtma	vendor_loc_item_arch
vpur	DBSvpur	vcla	vendor_loc_class_archive
		vpmr	vendor_loc_purch_comnt_arch
		vpua	vendor_loc_purchasing_archive

Budget

Table Family	Database	Table ID	Table Name
glep	DBSbdgt	frxs	frx_seg_code_tree

Consolidation

Table Family	Database	Table ID	Table Name
glep	DBScons	frxs	frx_seg_code_tree

Items

Table Family	Database	Table ID	Table Name
pmam	DBSpmam	pmca	item_comnt_archive
		pmha	item_history_archive
		pmma	item_archive
		ppxa	item_site_xref_archive
		pxha	item_site_xref_history_archive

Table Family	Database	Table ID	Table Name
pplm	DBSpplm	piha	item_stockroom_history_arch
		pkta	kit_definition_archive
		plha	item_plan_history_archive
		ppca	item_plan_comnt_archive
		ppla	item_plan_archive
		pska	item_stockroom_archive

Ledger

Table Family	Database	Table ID	Table Name
glep	DBSglep	frxs	frx_seg_code_tree

Payables

Table Family	Database	Table ID	Table Name
prqt	DBSprqt	prca	consolidated_sch_rcpt_dtl_arch
pymt	DBSpymt	pyac	pmt_temp_ach_pmts
		pycd	pmt_temp_check_detail
		pyck	pmt_temp_checks
		pypf	pmt_temp_print_file
		pypl	pmt_temp_print_log
		pysp	pmt_script

Personnel

Table Family	Database	Table ID	Table Name
hrpn	DBShrpn	hrp1	hrpoint_approval_queue
		hrp2	hrpoint_function
		hrp3	hrpoint_function_name
		hrp4	hrpoint_individual_pending
		hrp5	hrpoint_menu
		hrp6	hrpoint_menu_description
		hrp7	hrpoint_sys
		hrp8	hrpoint_sys_description

Procurement Common

Table Family	Database	Table ID	Table Name
plmm	DBSplmm	fesx	euro_site_audit
udef	DBSudef	paha	item_acctg_distn_archive

Purchasing

Table Family	Database	Table ID	Table Name
puen	DBSpuen	bhsa	blanket_order_std_phrase_arch
		blca	blanket_order_line_comnt_arch
		blha	blanket_order_comnt_archive
		blka	blanket_order_archive
		blla	blanket_order_line_archive
		blsa	blanket_ord_ln_std_phrase_arch
		pasa	purch_order_apprvl_status_arch
		pcna	purchase_order_comnt_archive
		pjla	po_project_jrnl_line_archive
		plda	purch_ord_line_std_phrase_arch
		plma	purch_order_line_comnt_archive
		plna	purchase_order_line_archive
		poha	purchase_order_archive
		poja	purchase_order_jrnl_line_arch
		posa	purch_order_std_phrase_archive
		pota	purchase_order_tax_archive
		ppja	po_project_jrnl_ctrl_archive
		psha	purchase_order_line_sched_arch
		psta	purch_ord_line_sched_tax_arch
		pvca	purch_order_apprvl_comnt_arch
reqm	DBSreqm	pora	purchase_order_req_archive
		raca	req_apprvl_comnt_archive
		reqa	req_archive
		rjla	req_line_jrnl_line_archive
		rlca	req_line_comnt_archive
		rqaa	req_apprvl_status_archive
		rqca	req_comnt_archive
		rqla	req_line_archive

Table Family	Database	Table ID	Table Name
		rsha	receipt_shipment_archive
		rtxa	return_req_xref_archive
		sdxa	sched_rcpt_doc_xref_archive
		skca	supplies_kit_order_comnt_arch
		skda	supplies_kit_order_ln_dtl_arch
		skha	supplies_kit_order_archive
		skla	supplies_kit_order_line_arch
		srca	sched_rcpt_com_archive
		srda	sched_rcpt_detail_archive
		srha	sched_rcpt_archive
		srqa	receipt_req_xref_archive
poan	DBSpoan	piaa	purch_ord_item_cmnt_ann_arch
		plaa	purch_ord_line_annals_archive
		pmaa	purch_ord_comnt_annals_archive
		pnaa	purch_order_ln_comnt_ann_arch
		poaa	purchase_order_annals_archive
		ppaa	purch_ord_std_phrs_annals_arch
		psaa	purch_ord_ln_sched_annals_arch
		pspa	purch_ord_ln_std_phrs_ann_arch

Receivables

Table Family	Database	Table ID	Table Name
rrcv	DBSrrcv	rrca	remit_tagged_alloc_mc

Receiving

Table Family	Database	Table ID	Table Name
ropm	DBSropm	dsca	discrepant_receipt_comnt_arch
		dsha	discrepant_receipt_hist_arch
		dsra	discrepant_receipt_arch
		rcca	receipt_rejections_comnt_arch
		rcja	receipt_rejections_arch
		rtca	return_comnt_archive
		rtla	return_line_archive

Table Family	Database	Table ID	Table Name
		rtna	return_header_archive

Supplies Management

Table Family	Database	Table ID	Table Name
iplm	DBSiplm	spca	supplies_picklist_archive
		spkw	supplies_picklist_arch_work
		spla	supplies_picklist_line_archive

Supplies Management Cost

Table Family	Database	Table ID	Table Name
cost	DBScost	ciea	cost_item_elem_archive
		cita	cost_item_archive
		cisa	cost_item_stkr_archive
		cjca	cost_jrnl_ctrl_archive
		cjla	cost_jrnl_line_archive
		ckia	cost_kip_archive
		cpaa	cost_posted_acct_archive
		cpca	cost_proj_jrnl_ctrl_archive
		cpga	cost_inv_posted_gl_archive
		cpla	cost_proj_jrnl_line_archive
		ct1a	cost_type_item_comnts_archive
		ct4a	cost_type_item_history_archive
		ctia	cost_type_item_archive
		drca	cost_inv_acct_archive
		iada	cost_inv_adjust_archive
		icta	cost_inv_costed_archive
		ieha	cost_item_elem_chg_hist_arch
		inva	cost_inv_hist_archive
		koda	cost_kit_ord_line_dtl_archive
		kola	cost_kit_ord_line_archive
		msca	cost_inv_misc_acct_archive
		sina	cost_supp_inv_balance_archive
		stca	cost_inv_consgt_archive

Table Family	Database	Table ID	Table Name
		stka	cost_inv_stkr_archive
		wipa	cost_inv_wip_archive
		xava	cost_xfer_avg_cost_archive
		xfra	cost_inv_xfer_ord_archive

Appendix C Tables with Minimal Required Data

Appendix Contents

C-1 About Tables with Minimal Required Data

About Tables with Minimal Required Data

This appendix lists current application tables that have minimal required data for SmartStream 6.5.

Shared Components

Database	Table Name	Updateable Minimal Required Data
DBSpurg	purge_activity_descr	
	purge_activity_control	
	purge_activity_column_operator	
	purge_selection_criteria	
	purge_group_table	
	purge_related_processes	
	purge_validation_rules	
DBSbank	pmt_transfer_formats	
	type_of_pmt	
DBScmre	country_currency	
DBSentp	acctg_object_description	
	addr_format	
	acctg_object_default_hir	
	batch_parameters	Yes
	days_of_week	

Database	Table Name	Updateable Minimal Required Data
	months_of_year	
	country_sub_entity	
	funds_ctrl_account_type	Yes
	acctg_distn_type	
	acctg_distn_type_usage	
	phone_format	
	sortable_col	
	tax_form_types	
DBSpclh	period_type	Yes
DBSCOMMON	udak_key_layout	Yes
	udak_dw_master	

Asset Management

Database	Table Name
DBSfast	ast_message_master
	ast_message_master_lang
	ast_text

Background Load

Database	Table Name	Updateable Minimal Required Data
DBSmabl	bulk_load_trans_columns	Yes
	bulk_load_descr	Yes
	bulk_load_trans_id	Yes

Euro

Database	Table Name
DBSEURO	euro_subldr_conv_parms

Funds Control

Database	Table Name

Database	Table Name
DBSfund	fund_reason_codes

Ledger

Database	Table Name
DBSglep	control_parameter_type

Payables

Database	Table Name
DBSprqt	payables_draft_activity_desc
	matching_exception_descp

Personnel

Database	Table Name	Updateable Minimal Required Data
DBShapm	import_export_ctrl	Yes
DBShrac	work_report_eea_occup_grp	Yes
	work_report_eea_salary_summary	Yes
DBShrpn	aggregate_descp	Yes
	hr_audit_ctrl_tbl_descp	Yes
	hr_audit_ctrl	Yes
	hr_audit_master	Yes
	code_entry_policy	Yes
	code_policy	Yes
	canadian_tax_authority	Yes
	canadian_standard_tax_credits	Yes
	disbursal_print_template	Yes
	aggregate	Yes
	activity_menu	
	adj_payroll_run_type	Yes
	us_tax_authority	Yes
	hrpoint_function	
	hrpoint_function_name	Yes
	hrpoint_menu	

Database	Table Name	Updateable Minimal Required Data
	hrpoint_menu_description	Yes
	hrpoint_sys	
	hrpoint_sys_description	Yes
	report_proc_db_xref	
	regulatory_report_record_fmt	
	tax_type_descp	Yes
	tax_type	

Procurement Common

Database	Table Name
DBScntl	history_options_initial
DBSotpm	mfg_order_status_codes
	mfg_order_type_codes

Receivables

Database	Table Name	Updateable Minimal Required Data
DBSrrcv	remit_algorithm_definition	Yes
	recv_draft_activity_descp	
	recv_reason_code	

Supplies Management

Database	Table Name
DBSpurg	purge_group_table

Supplies Management Cost

Database	Table Name
DBScost	cost_trans_descp_lang
	cost_trans_load
	cost_supplies_load
DBSpurg	purge_group_table

Unit of Measure

Database	Table Name	Updateable Minimal Required Data
DBSuomm	unit_of_measure_conversion	Yes
	unit_of_measure	Yes

SmartStream®

Planning Document for SmartStream 7.0

Release 7.0.00
February 2004

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Introduction

The purpose of this document is to help you plan time, staff, and computer resources needed to implement SmartStream 7.0.00. It contains the latest information about this release. This planning document contains the following sections:

SECTION I	PROJECT SUMMARY AND SCOPE
SECTION II	ENVIRONMENT REQUIREMENTS
SECTION III	INSTALLATION CONSIDERATIONS

Geac SmartStream development methodology provides for four distinct project phases: 1) Project Definition, 2) Analysis & Design, 3) Construction, and 4) Approval & Delivery. After each phase, this document is revised and placed on AnswerLink with a new revision date. Please download and review this document when the revision date changes so that you are current with decisions made during each phase. The final document is marked FINAL VERSION.

This document is current through **Project Definition**, version 1.

Revision Information

Original Publication Date:	November 7, 2003
Revision Date:	February 4, 2004

Contact

If you have any suggestions or comments regarding ways we can improve this planning document, we want to hear from you! Please send an email to SmartStream customer support at SmartStreamFeedback@geac.com with your feedback.

Disclaimer: Delivering this document during each phase of the project provides Geac Enterprise Solutions customers with important information at an earlier point in development, giving time to adequately plan for implementation of this release. The information is published as it becomes available and is generally reliable and correct, but it is subject to change based on various factors, including platform changes, market conditions, and so on, especially during the earliest phases of the project. If the project scope changes, this document is updated and posted to AnswerLink as soon as possible.

1 Project Summary and Scope

Chapter Contents

1-1 Planned General Availability
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Planned General Availability

The English versions of SmartStream 7.0.00 and system extensions are planned for the third quarter of 2004. These will be shipped or available for download to customers who are current on maintenance.

SmartStream 7.0.00 will not be supported for 2004 HR regulatory reporting. HR customers must remain on SmartStream 6.5.03 + cumulatives to receive year-end support for 2004.

The French, Spanish, Dutch, and Italian language kits and system extensions are planned for the fourth quarter of 2004.

Approach

The objective of this project is to provide Geac customers with a new release of SmartStream that includes technical upgrades and application enhancements.

Product Retirements

The following products are no longer supported and will not be delivered with SmartStream 7.0.00:

- VSE Connect
- MAPI Mail Gateway (replaced with SMTP Mail Gateway as defined in solution 22327)
- Reporting Tools (executables will not be delivered in SmartStream 7.0.00)

Technical Upgrades

- Modify SmartStream objects to conform to new programming standards and techniques introduced by replacement of Microsoft SQL Server and Sybase DB-LIB functions for SmartStream Connect.
- Modify SmartStream objects to conform to new programming standards and techniques introduced by Visual Basic 6.0.
- Modify SmartStream objects to conform to new programming standards and techniques introduced by PowerBuilder 9.0.1. DB-LIB dependencies will also be removed from the PowerBuilder code.
- Update the operating systems to 32- and 64-bit versions of HP-UX 11i, IBM-AIX 5L V 5.2, and Sun Solaris 2.9
- Update SNA to Microsoft Host Integration Server 2000, Brixton v. 4.1.3 (Sun), and IBM Communications Server 6.1.
- Update migration processes and documentation to ensure successful data migration from SmartStream 6.5.03 + cumulatives.
- Update Automatic Client Reinstallation processes and documentation to ensure that it performs as documented with SmartStream 7.0.00.

Enhancements

The following table lists the enhancements to be included in SmartStream 7.0 as of October 31, 2003. Additional enhancements may be added. This document will be updated periodically to reflect those changes.

Deliverable	Solution	Languages*
Ledger - Automatically Calculate and Update Retained Earnings	14526	E, F, S, D, I
Payroll - Post Statistical Entries to Ledger	525255	E, F
Payables - Purchase Order/Invoice Matching (Two-Way Matching)	29069	E, F, S, D, I
Platform - Add Hot Key for Refresh Function	131421	E, F, S, D, I
Platform - Allow Sybase SSO To Add User Logins	5148	E, F, S, D, I
Platform - License Management	527435	E, F, S. D, I
Platform - Enhanced User Interface	526721	E, F, S, D, I
Platform - Include Job Qualifier on Job Scheduler Mail Subject Line	525850	E, F, S, D, I
Platform - Performance Enhancement for ARPC	13933	E, F, S, D, I
Platform - Streamline File Open	530084	E, F, S, D, I
Platform - Structures Import/Export	526222	E, F, S, D, I
Platform - Upgrade SNA versions for SmartStream Connect	528278	E, F, S, D, I
Receiving - Receipt Load of Transfers, Returns, and Stocked Items	524641	E, F, S, D, I
Technical Upgrade - PowerBuilder 9.0 upgrade	527018	E, F, S, D, I
Technical Upgrade - Visual Basic Upgrade to 6.0	525718	E, F, S, D, I

* E=English, F=French, S=Spanish, D=Dutch, I=Italian.

Product Retirements

SmartStream 7.0.00 will no longer provide support for the following products.

Reporting Tools

Reporting Tools will no longer be delivered in this release of SmartStream. This includes the following products:

- Analyzer
- Business Views
- DSS Viewer
- Locations and Datasources
- Policy Controls
- Management Reporter
- Navigator
- Query
- Reporter
- Report Series
- Reporting Tools Copy Utility

MAPI Mail Gateway

The MAPI Mail Gateway has been replaced by the SMTP Mail Gateway introduced in Solution 22327.

VSE Connect

The VSE Connect product is being retired. The mainframe components will no longer be delivered.

Technical Upgrades

SmartStream 7.0.00 includes upgrades to the following environments, software version levels, or both. The technical upgrades affect all of the functional areas (Financials, Human Resources, Platform, and Procurement).

UNIX Upgrades

- Sun Solaris operating system is upgraded to 32-bit and 64-bit Solaris 9 (2.9).
- IBM AIX operating system is upgraded to 32-bit and 64-bit AIX 5L V. 5.2.
- HP UX operating system is upgraded to 32-bit and 64-bit HP-UX 11i.

Client Machine Upgrades

- PowerBuilder is upgraded to 9.0.1. DB-LIB dependency is removed from PowerBuilder code.
- The Microsoft Visual Basic compiler will be upgraded to version 6.0.
- Microsoft Office is upgraded to Office 2003. Customers can still use Office 2000 and Office XP

Database Upgrade

Sybase is upgraded to 12.5.1 (32- and 64-bit) and its associated EBF. Customers can still run on Sybase 12.0 ASE. Because SmartStream is compatible with both versions of Sybase, all machines running SmartStream (including Mail Gateway and Job Servers) must run Sybase Open Client 12.0 to connect to Sybase 12.5.1.

Mainframe Connectivity Upgrades

- SNA is upgraded for IBM-AIX to Communication Server 6.1.
- SNA is upgraded for Sun to Brixton 4.1.3
- SNA is upgraded Windows server to Host Integration Server 2000 Server 5.0.

DB-LIB

DB-LIB is the older technique that Microsoft and Sybase used to access the databases. DB-LIB is replaced in SmartStream Connect with current database access using ODBC for Windows and CT-LIB for UNIX. DB-LIB will be replaced in the PowerBuilder code with OLEDB for Microsoft SQL Server systems, and CT-LIB for Sybase systems.

Application Enhancements - Financials

This section describes the Financials business functions that are addressed by SmartStream 7.0.00.

Ledger - Automatically Calculate and Update Retained Earnings

The Retained Earnings enhancement allows customers to automate the closing process to create and post the closing entries from Profit and Loss accounts to retained earnings. This new functionality can be used after adjusting entries are made and is separate from the current Year End process, which rolls balances and opens the new year.

The enhancement allows customers to close income accounts to an income summary account and expense accounts to an expense summary account. Each of these entries will be offset to retained earnings. In keeping with intraentity balancing, it will be possible to subtotal the closing entries based on accounting key elements. For example, if a balanced set of books is maintained for Product, an accounting key element, the closing entries will be made by product, such that each product will have its own retained earnings account and summary accounts.

This process can be run at any time, provided the date of the generated year-end journal is a valid posting date for the entity. It can be run multiple times for the same entity and fiscal year.

For single currency entities, the process will use the transaction balances for the single currency to determine the amount of retained earnings. For multicurrency entities, the amounts used will depend on ledger entity policy and the Retained Earnings Update Request run options. The user will have a choice of using book balances or transaction balances.

Customer Benefits: SmartStream customers will benefit from a more efficient and automated year end close process that eliminates manual steps currently required for year end processing. Customers will benefit from a flexible design, which takes into consideration the different business requirements of single currency and multicurrency organizations. This enhancement also builds on the recently delivered intraentity balancing functionality giving customers the ability to close the year for a balanced set of books at a level below entity.

Application Enhancements - Human Resources

This section describes the Human Resources business functions that are addressed by SmartStream 7.0.00.

Payroll - Post Statistical Entries to Ledger

The Post Statistical Entries to Ledger enhancement provides additional information, such as job, position, number of hours or units worked associated with a job or position, that can be used as needed within the organization for reporting, posting to ledger, or more detailed accounting distribution. This information will be captured in separate fields within one location for easy access. Customers can create individualized stored procedures to capture specific additional information to be passed to Ledger or easily extract needed information for reporting.

Customer Benefit: Customer benefits are three fold.

Customers

- Can create their own stored procedure to place additional information to be passed to Ledger in available user fields or easily extract needed information for reporting
- Who already have a custom module to do this will realize time and savings, as this functionality will be delivered in the base product
- Who do not have a custom module will realize additional functionality.

Application Enhancements - Platform

This section describes the Platform business functions that are addressed by SmartStream 7.0.00.

Add Hot Key for Refresh Function

This enhancement provides a function key to handle a window refresh. This new function key allows the user to easily access the most current, accurate information when information has changed from the time it was first presented.

Customer Benefit: The user will have the ability to refresh information more easily and quickly.

Allow the Sybase SSO Role to Add User Logins

This enhancement allows the Sybase SSO (Security Officer) to add user logins from within SmartStream based on the database management system authority rather than SmartStream determined authority for performing specific database administration tasks. The new functionality takes advantage of the Sybase capability of granting SSO privileges (a subset of sa tasks) to other users. Users are no longer forced to use **sa** as the system administration ID.

Customer Benefit: Allowing the database management system to determine if someone has the authority to perform specific database administration tasks takes advantage of the Sybase capability of granting SSO privileges (a subset of sa tasks) to other users. The users are no longer forced to use **sa** as the system administration ID.

Enhanced User Interface

The Enhanced User Interface enhancement presents a modernized look for SmartStream windows while also updating the existing software to present increased data displays and individual customization features. Customized windows can be tailored to the end-user's preference and are easier to read data from, enter data on, and work with on a daily basis. This enhancement will resolve solutions 29133, 29789, 30146, 520881, 520882, and 520883.

Customer Benefit: With the new 3-D window options, customized window colorization, and added data displayed for windows with grids, users may recognize greater productivity through a more enriched user experience within an ergonomically friendly environment. Increased time savings translates into increased cost savings for employers as employees become more comfortable and efficient, freeing up additional time to handle other business related tasks. Users will feel that the software has been personalized for them, as if they are using a new business tool but without the training costs and learning curve associated with new products.

Include Job Qualifier on Job Scheduler Mail Subject Line

This enhancement will permit customers to work more efficiently by not having to open e-mails from Job Scheduler to identify the specific jobs referenced and distinguish between job results. Previously a user had to open an e-mail and check the job qualifier to distinguish between jobs with the same job name. The job qualifier will now show up as part of the subject line of the e-mail so that each job can be distinguished from another job with the same job name.

Customer Benefit: This will make it easier to distinguish between job result e-mails.

License Management

The License Management enhancement incorporates automated usage tracking into SmartStream to aid customers in accurately assessing usage and licensing requirements. License Management captures user activity information to provide accurate feedback and provides on-demand reports showing detailed and summarized usage.

Customer Benefit: Starting with SmartStream 7.0.00, SmartStream will systematically provide usage-tracking information with application-level granularity. Captured activity will be readily accessible through online statistics as well as on-demand reports at detailed and summary levels. As a result, customers will be in a vastly improved position to monitor application usage, prevent unwanted license violations, and gain a wealth of business intelligence to plan for future requirements.

Performance Enhancement for ARPC

This enhancement improves the efficiency of requests processed through ARPC. The current process can be very lengthy when customers have a large number of requests pending because of the way data is currently retrieved and sorted. The performance enhancement greatly improves the amount of time required to process ARPC requests and reduces server load.

Customer Benefit: This will speed up ARPC requests. It is primarily beneficial when the customer has a large number of requests pending.

Streamline File Open

File open processing is modified to return all rows on the initial search that are specified in the File Open Parameters activity (Row Count field). As a result, the More button on the File Open window is no longer necessary and has been removed. All records meeting the search criteria are returned, up to the number of records indicated in File Open Parameters activity for that file open ID, when a search is performed. For example, the File Open ID **usmm** is delivered with a row count of 500 records on the User activity. When a file open search is performed, 600 records meet the criteria specified. In this case, only the first 500 records that meet the search criteria will be displayed on the File Open window. To view all 600 records, the user can reset the file open parameter to 600 or limit the query using search criteria. Additionally, the user is able to reduce the number of records returned for a particular search on the File Open window. This enhancement also corrects solutions 313325, 498477, 522385, 273284, 267648, 502476, 268409, and 526813.

Customer Benefit: Users performing file open searches are able to see all records that meet the search criteria up to the SmartStream maximum of 10,000.

Structures Import/Export

This enhancement to Structures provides the ability to import or export an unlimited number of point properties and point layer assignments from or to a point record layout (.prl) file. Previously, the import process was limited to importing only five point properties, and layer assignments could not be imported at all. The export process previously did not export point properties or layer assignments. Additionally, the Extended Open Structure Export is enhanced so that point properties and layer assignments are exported to their corresponding tables.

Customer Benefit: Customers have increased flexibility in maintaining structure information and additional information available to those processes that make use of Open Structure tables.

Upgrade SNA to Connect

This enhancement upgrades SmartStream Connect to run on the latest versions of SNA so that the supported SNA versions are compatible with the supported operating system versions. In addition, SmartStream Connect programs currently use DB-LIB (DB-Library) for SQL Server connections. Neither Microsoft nor Sybase currently support DB-LIB as their preferred method to connect programmatically to their databases. This enhancement converts the Connect programs to use ODBC (Microsoft) and CT-LIB (Sybase) for connections to the databases.

Customer Benefit: Customers will be able to get bundled versions of the operating systems that include the correctly supported versions of SNA. Changing DB-LIB connectivity is a part of the on going effort to maintain the SmartStream applications on current technology.

Application Enhancements - Procurement

This section describes the Procurement business functions that are addressed by SmartStream 7.0.00.

Payables- Purchase Order/Two-Way Matching

This enhancement upgrades SmartStream Purchasing and SmartStream Payables to provide a two-way matching process, which bypasses receiving and matches purchase orders to invoices using quantity ordered instead of quantity received.

This functionality enables customers to bypass the receiving process and effectively close the purchase order when fully invoiced. To add flexibility, matching is specified at the purchase order line schedule level using the document header value as part of the line schedule defaulting hierarchy, keeping in mind that there is a one-to-many relationship between the purchase order line and its associated line schedules.

Customer Benefit: By allowing this two-way matching flexibility, users will no longer have to perform the receiving action to match purchase orders to invoices without generating an exception. This will save time for those intangible items, or routine goods that may not be required to pass through the receiving areas.

Receipt Load of Transfers, Returns, and Stocked Items

The Receipt Load of Transfers, Returns and Stocked Items enhancement provides the ability to process receipts for transfer orders and returns to stockroom, in addition to removing the current purchase order type transaction limitations on stocked items. Stocked items can optionally be loaded as complete and therefore bypass the additional online receiving process, provided there are no errors or exceptions.

Customer Benefit: Including this functionality will allow for a more seamless integration with third-party applications with no user intervention required.

Maintenance Solutions

ALL coded and tested maintenance solutions since SmartStream 6.5.00 and subsequent service packs or cumulatives are included in SmartStream 7.0.00.

System Extensions

The following is a list of base certified systems extensions. These extensions are updated as part of this project.

- SmartStream Account Reconciliation
- SmartStream Direct Debit
- SmartStream European Payment Methods
- SmartStream Extended Payment Terms
- SmartStream Extended Receivable Drafts
- SmartStream International Tax Reporting
- SmartStream Revaluation for Banks
- SmartStream Tax processing on Cash basis
- SmartStream VAT in Ledger

Italian Controlled

The following is a list of Italian systems extensions. These extensions are updated as part of this project.

- General Ledger Italian Ext. Packs (Fiscal Report, VAT management for cash sales)
- Payables Italian Extensions Packs (Foreign Currency VAT - EEC Invoice, VAT Fiscal Reports, VAT Number, Withholding Tax, Vendor Value Date, Italian Letter of Transfer, Italian Bank Transfer)
- Receivables Italian Ext. Packs (VAT Fiscal Reports, VAT Number, Fiscal Code)
- Common Components Italian Ext. Packs (Entities VAT Number, ABI/CAB Bank Code),
- Asset Management Italian Ext. Packs (Additional Entity Policy, Regulatory Reports, Additional Depreciation options)

Documentation

The following documentation will be updated and will be delivered on the CD:

- Online Help

The following documentation will be updated and will be delivered via DocLink:

- Technical Reference
- Processing Guides
- *Installation Guide*
- *Migration Guide*
- *Upgrade in Place for Sybase Guide*
- *Thin Client Installation Guide*
- *Automated Client Reinstallation Guide*

The *Migration Guide* is being updated to include improved migration instructions and the server-to-server copy process.

Note: This Planning Document is a replacement for the *What's New in SmartStream* document. The *What's New in SmartStream* document is no longer delivered with new releases of SmartStream.

Translations

The language kits for SmartStream and system extensions are planned for the fourth quarter of 2004. The following SmartStream language kits are delivered by development and are planned for the following languages.

Language	Software	Online Help	DocLink
French	✓	✓	✓
Spanish	✓	✓	✓
Dutch	✓		
Italian	✓	✓*	

* Italian Extensions Only

The following SmartStream language kits are delivered by the individual countries and are planned for the following languages.

Language	
Arabic	GDI third party
Portuguese	Geac Latin America

The translated versions of SmartStream 7.0.00 are being modified as follows:

- MS SQL Server and Sybase are contained on one CD.

The following components will no longer be translated:

- Client Installation
- Udak.exe

Product Delivery

SmartStream 7.0.00 product delivery will include the following items:

- SmartStream 7.0 Base Product CD
- SmartStream 7.0 Language Kit CD
- SmartStream Base License Key
- SmartStream 7.0 Builder CD
- SmartStream Builder License Key
- SmartStream Library CD
- SmartStream Release Introduction.

SmartStream 7.0 Base Product CD

The SmartStream Base Product CD contains the SmartStream products.

SmartStream 7.0 Language Kit CD

The SmartStream Language Kit CD contains the language kit for the licensed language.

SmartStream Base License Key

The SmartStream Base License Key is the key used to install the product or products licensed and to conform to the Licensing Agreement.

Note: Depending on the products licensed, more than one SmartStream Base License Key can be delivered.

SmartStream 7.0 Builder CD

The SmartStream Builder CD contains the SmartStream Builder product.

SmartStream Builder License Key

The SmartStream Builder License Key is the key used to install the SmartStream Builder product.

SmartStream Library CD

The SmartStream Library CD contains application and technical documentation for SmartStream products in portable document format files (*.pdf). It will include updates for SmartStream 7.0. The SmartStream Library is also available on DocLink.

SmartStream Release Introduction

The SmartStream Release Introduction provides an introduction to SmartStream, lists SmartStream 7.0 deliverables, and briefly describes the SmartStream products and documentation. SmartStream Release Introduction also introduces you to SmartStream Customer Support and explains how to access the latest installation information and online documentation in AnswerLink.

2 Environment Requirements

Chapter Contents

2-1 Environments Included
2-2 Third-Party Software
2-3 Development Base
2-4 Software Requirements

Environments Included

The proposed supported technical environment (STE) for SmartStream 7.0 will incorporate a new tiered approach of supporting operating systems, database releases, and some client components to provide customers the option of implementing enhancements with minimal disruption to their technical environments. The level of support received for each tier and associated environments is defined in Bulletin Board Topic 279842 on AnswerLink.

The 7.0.00 Supported Technical Environments document describing all environments for SmartStream 7.0 can be found in Bulletin Board Topic 186761.

Third-Party Software

The following third-party software is upgraded:

- FRx Financial Reporting, version 6.7

Development Base

SmartStream 6.5.03 + HR Cumulative (524391) + Financials/Procurement Cumulative (Solution 524364) was used as a base for developing SmartStream 7.0.00.

Software Requirements

The 7.0.00 Supported Technical Environments document (Bulletin Board Topic 186761) is published and contains details about the required environments for this release.

3 Installation Considerations

Chapter Contents

3-1 Available Documentation
3-2 Migration

Available Documentation

SmartStream 7.0.00 will include the following documents to assist you in installation.

- *Installation Guide*
- *Migration Guide*
- *Upgrade in Place*

You access the most current versions of these guides online using DocLink (the documentation library component of AnswerLink, the Geac Web-based support service).

Installation Guide

The SmartStream 7.0.00 *Installation Guide* will contain installation instructions for SmartStream and all licensed SmartStream products.

Migration Guide

The SmartStream 7.0.00 *Migration Guide* will contain information about migrating to SmartStream 7.0.00.

This guide is being updated to include improved migration instructions and the server-to-server copy process.

Upgrade in Place

The SmartStream 7.0.00 *Upgrade in Place* guide will contain information about upgrading your environment to SmartStream 7.0.00. This guide is being updated to include improved instructions.

Migration

SmartStream 7.0.00 supports migration from SmartStream 6.5.03 + cumulatives. Platform and Financials customers will migrate from 6.5.03 + Financials/Procurement Cumulative (Solution 524364) to SmartStream 7.0.00. HR customers must remain on 6.5.03 through year-end 2004 (6.5.03 + 2004 Year-End updates).

Customers must be current on these releases before migrating or upgrading to SmartStream 7.0.00.

Database Upgrades and Conversions (Migration, Same-to-Same, and Upgrade in Place)

Customers can perform a migration, a same-to-same migration, or upgrade in place from an STE-compliant database server to any other STE-compliant database server.

The following table lists the STE-compliant database servers:

Database
Sybase 12.0
Sybase 12.5.1 (with Open Client 12.0)
Microsoft SQL Server 7.0
Microsoft SQL Server 2000

For information about the supported technical environments, see the 7.0.00 Supported Technical Environments document (Bulletin Board Topic 186761).

1 SmartStream Server to Server Copy

Chapter Contents

1-1 Introduction
1-2 Create a File Server to Support the Target SmartStream Server
1-3 Create the Target SmartStream Server
1-5 Post-Server Install Tasks
1-6 Appendix: Updating Embedded Server Names

Introduction

The purpose of this process is to create a separate database server environment that gets it's objects and data source from the content of an existing database server environment. For example one may want to create a test environment that is exactly like one's production environment.

This can be done by taking a dump from an existing database server environment and restoring that dump to the new database server environment.

To accomplish this one must first create the new database server environment to be congruent with the source database server environment. In other words, the same create database and alter database statements must be executed on the new database server environment as were executed on the source database server environment for each database in the database server environment and they must be executed in the same order.

One may utilize the same file server to support both environments or create a seperate file server to support the new environment.

This process does not take into account any user-defined databases, report specifications, or other customizations that occur outside of SmartStream delivered databases. Additionally, it assumes that the source environment of SmartStream was installed as outlined by the Installation Guide and no other applications are installed on the source database server environment.

Use of this document is intended only for experienced Database Administrators who have a detailed working knowledge of Sybase or Microsoft database concepts and administration.

NOTE: Throughout this document the term file server is used to mean the network

file server where Smartstream was installed via the SmartStream CD to file server process and the term database server refers to the Sybase or Microsoft database server environment.

Create a File Server to Support the Target SmartStream Server

Step	Action
1	Verify that you have enough space on a file server drive that matches your source SmartStream file server drive.
2	Copy your source file server directory to the uniquely named target file server directory (for example: copy from `DBS65tst` to `DBS65prd`).
3	Make the following changes on your target file server instance: ▪ change all SQL server references in `*.ini` files. ▪ change all pathing statements to match that of your new file server instance.

Create the Target SmartStream Server

Note: Read the instructions in the SmartStream Installation Guide to verify that the client machine is set up to perform the following install procedures. If you have a Sybase SQL Server established with DBS-defined databases, then you can proceed to Step 13.

Step	Action
1	Install a new instance of the Sybase SQL Server. This instance must be identical to the source server in the following ways: ▪ same operating system and release level ▪ same release level of Sybase (including EBF's) ▪ If Auditing (`sybsecurity`) is turned on in the source server, then it must also be turned on in the target server.
2	Alter the target Master database to the same size as the source server's master database and configure Sybase accordingly.
3	Assign a password to the `"sa"` userid on the new server.
4	Dump the DBS databases from your source Sybase server. If you dump to disk, copy the database disk dump files from the source server UNIX directory to a newly defined UNIX directory (`/sybdump/server2`, for example). **NOTE**: This step is dependent on the fact that the O/S on your source and target servers are identical and at the same release level. For example: "from SUN to SUN" or "from HP-UX to HP-UX"
5	Create dump devices on the target server for the DBS databases pointing to the newly created UNIX directory from previous step.
6	Run DBS utility, DBSPREP from your target file server, supplying information on the target Sybase server.
7	Shutdown and restart the target Sybase SQL Server.
8	Do a `"select @@servername"` and verify the server name. **NOTE**: If you receive a NULL, you forgot to restart the server.
9	Use a database query tool such as SQL Advantage or SQL Server Query Analyzer to test the alias: `DBSctlg..sp_who.`
10	Add `'DBS'` (UPPERCASE) as a user id with a password of `'password'` (lowercase). **Note**: The DBS delivered script used to create the DBSctlg database will add the DBS user id. If you use the delivered SQL scripts, then you can skip this step and proceed to the next step.
11	Create the DBS databases in the target SQL Server by running the `SETUP.EXE`

	from the `..\<DBS Directory>\CREATELD` directory on the target server's file server. Check each `*.out` file to verify that all the databases created successfully. Verify that they are created the same way as on the source server including fragmentation. Get the database information to verify this from `sysusages, sysdatabases, & sysdevices`. Set the following Database options on each of the databases : `select into and truncate log on checkpoint`.
12	Adjust the Sybase configuration for the target server, based on the configuration of the source server.
13	Load the databases from the source server dumps into the target server databases. Check the `backup.log` to confirm that all databases loaded successfully.
14	Update SmartStream tables changing the source server name to the target server name. (See Appendix).

15	Run the following two scripts for loading SmartStream stored procedures to the master database on the target server. You must first bring online the SmartStream databases online before running this SQL.
	▪ Connect to the '*Network_drive*:<*DBS Directory*>\DBMS\CTLGMAST' directory
	▪ Run the following command:
	`..\wjamit 1 database.prf INSTALL_WITH_ED_DATA` *`Network_drive`*`:\<`*`DBS Directory`*`>\dbms\ctlgmast\ master` *`SQL_Server sa password`*
	▪ Connect to the '*Network_drive:*\<*DBS Directory*>\DBMS\CTLGSRV' directory
	▪ Run the following command :
	`..\wjamit 1 database.prf INSTALL_WITH_ED_DATA` *`Network_drive`*`:\<`*`DBS Directory`*`>\dbms\ctlgsrv\ master` *`SQL_Server sa password`*
	▪ Running the following SQL on the target server should return 30 stored procedures:
	`select *`
	`from master..sysobjects`
	`where name like 'sp_dbs%'`
	`go`

16	If you are a Sybase customer, perform the following two steps: ▪ `Connect to the '`*`Network_drive:`*`\<`*`DBS Directory`*`>\DBMS\CTLGMAST' directory` ▪ `Run the command ..\wjamit 1 database.prf SYBASE_ONLY` *`Network_drive`*`:\<`*`DBS Directory`*`>\dbms\ctlgmast\ master SQL_Server sa password`

17	Make `'DBS'` the Database Owner for all databases.
18	Security Updates: ▪ Drop all users from all databases and drop the login accounts from the target server. ▪ Re-add all users to all databases and add the login accounts.
19	Backup all Databases. Check the `backup.log` and run `dbcc` checks to confirm that all databases backed up successfully.

Post-Server Install Tasks

Mail Gateway

Install a separate Mail Gateway machine to support your new environment. If the new environment is at the same SmartStream release level as an existing server, then the Mail Gateway can be shared between the servers. Use the Master Scheduler and Poll Configuration activities using the same Mail Gateway information as the older servers.

Job Servers/Polls

Install and configure ARPC, UNIX and Windows Job Servers/Polls on new server.

Client Workstations

- Edit the `dbs.ini` and do a search on `"old_server"`. Change all references to the `"new_server"`. Check to see where the `dbserver.ini` is located (especially if on the network in the ..\dbs\ss\ subdirectory).
- Edit the `dbserver.ini` to reflect the new server in the server = section.
- Open ODBC control panel and add the ODBC connection information for the new server.
- Test SmartStream by opening up windows and launching an application Access report (.MDB).

Appendix: Updating Embedded Server Names

Many SmartStream tables contain server names. The following is a list of all the references to servers on the SmartStream SQL Server. The sections appropriate to your server's installed product base can be run on the target server after replacing the "old_server" string with the name of the source server.

NOTE: Sybase must be installed case-sensitive and all database, table, and column names are shown in their proper case.

DBSCOMMON (Common Data)

```
update DBSCOMMON..attach
   set wijt_location=@@servername
 where wijt_location="old_server"
go

update DBSCOMMON..help_request
   set wijt_location=@@servername
 where wijt_location="old_server"
go
```

DBSpscb (SmartStream Job Scheduler)

```
update DBSpscb..psc_security_detail
   set psc_target=@@servername
 where psc_target="old_server"
go
```

DBSarpc (Asynchronous Remote Procedure Call)

```
update DBSarpc..arpc_request
   set arpc_dest_srvr_name=@@servername
 where arpc_dest_srvr_name="old_server"
go
```

DBSwact (SmartStream Workflow, Security & Desktop)

```
update DBSwact..message_queue_1
   set prev_server_name=@@servername
 where prev_server_name="old_server"
go

update DBSwact..message_queue_1
   set server_name=@@servername
 where server_name="old_server"
go

update DBSwact..message_queue_hist_1
   set prev_server_name=@@servername
 where prev_server_name="old_server"
go
```

```
update DBSwact..message_queue_hist_1
   set server_name=@@servername
 where server_name="old_server"
go

update DBSwact..message_queue_hist_values
   set server_name=@@servername
 where server_name="old_server"
go

update DBSwact..message_queue_values
   set server_name=@@servername
 where server_name="old_server"
go

update DBSwact..move_log
   set target_svr=@@servername
 where target_svr="old_server"
go

update DBSwact..msg_group_master
   set wijt_location=@@servername
 where wijt_location="old_server"
go

update DBSwact..network_access
   set server_id=@@servername
 where server_id="old_server"
go

update DBSwact..reassign_hist
   set reassign_server=@@servername
 where reassign_server="old_server"
go

update DBSwact..reassign_hist
   set server_name=@@servername
 where server_name="old_server"
go

update DBSwact..server_temp_password
   set server_id=@@servername
 where server_id="old_server"
go

update DBSwact..user_master_1
   set wijt_location=@@servername
 where wijt_location="old_server"
go
```

DBSctlg (Catalog)

```
update DBSctlg..tbl_svr_db_xref_1
   set from_server_id=@@servername
 where from_server_id="old_server"
go

update DBSctlg..tbl_svr_db_xref_1
   set server_id=@@servername
 where server_id="old_server"
go

update DBSctlg..tbl_svr_db_xref_1
   set dist_ent_1_val=@@servername
 where dist_ent_1_val="old_server"
go

update DBSctlg..tbl_svr_db_xref_1
   set dist_ent_2_val=@@servername
 where dist_ent_2_val="old_server"
go

update DBSctlg..disl_tbl_db_xref_1
   set dist_ent_1_val=@@servername
 where dist_ent_1_val="old_server"
go

update DBSctlg..disl_tbl_db_xref_1
   set dist_ent_2_val=@@servername
 where dist_ent_2_val="old_server"
go

update DBSctlg..WIJ_SERVERS
   set server_id=@@servername
 where server_id="old_server"
go
```

DBSosst (Reporting Tools Objects and Structures)

```
update DBSosst..RQY_LOCATIONS
   set LOCATION_NAME=@@servername
 where LOCATION_NAME="old_server"
go

update DBSosst..RDS_DATA_SOURCE
   set LOCATION_NAME=@@servername
 where LOCATION_NAME="old_server"
go

update DBSosst..RMR_RUN_PARMS
   set LOCATION_NAME=@@servername
```

```
 where LOCATION_NAME="old_server"
go

update DBSosst..RDS_LOCATION
   set LOCATION_NAME=@@servername
 where LOCATION_NAME="old_server"
go

update DBSosst..RMR_BAL_TABLES
   set LOCATION_NAME=@@servername
 where LOCATION_NAME="old_server"
go

update DBSosst..RAN_HDR
   set BLD_LOCATION_NAME=@@servername
 where BLD_LOCATION_NAME="old_server"
go

update DBSosst..RPA_HDR
   set BLD_LOCATION_NAME=@@servername
 where BLD_LOCATION_NAME="old_server"
go

update DBSosst..RQY_HDR
   set BLD_LOCATION_NAME=@@servername
 where BLD_LOCATION_NAME="old_server"
go

update DBSosst..RRP_HDR
   set BLD_LOCATION_NAME=@@servername
 where BLD_LOCATION_NAME="old_server"
go

update DBSosst..RRP_FRAME_HDR
   set BLD_LOCATION_NAME=@@servername
 where BLD_LOCATION_NAME="old_server"
go

update DBSosst..RMR_REPORT_HDR
   set BLD_LOCATION_NAME=@@servername
 where BLD_LOCATION_NAME="old_server"
go

update DBSosst..RDS_LOCATION
   set SERVER_NAME=@@servername
 where SERVER_NAME="old_server"
go

update DBSosst..RDS_SOURCE_VW
   set SERVER_NAME=@@servername
 where SERVER_NAME="old_server"
```

```
go

update DBSosst..SRG_COLUMN_ASSOCIATION
   set SERVER=@@servername
 where SERVER="old_server"
go

update DBSosst..SRG_COLUMN_ASSOCIATION_VIEW
   set SERVER=@@servername
 where SERVER="old_server"
go

update DBSosst..RPC_DSSBALANCETABLES
   set SERVER=@@servername
 where SERVER="old_server"
go
```

DBSglep (SmartStream Ledger)

```
update DBSglep..control_parameter_values
   set qualifier_type_value=@@servername
 where qualifier_type_value="old_server"
go
```

DBSpiqd (SmartStream Connect)

```
update DBSpiqd..piq_db_insert
   set piq_server_name=@@servername
 where piq_server_name="old_server"
go

update DBSpiqd..piq_eda_sql
   set piq_server=@@servername
 where piq_server="old_server"
go

update DBSpiqd..piq_storedproc
   set piq_server_name=@@servername
 where piq_server_name="old_server"
go

update DBSpiqd..piq_upload
   set piq_server_name=@@servername
 where piq_server_name="old_server"
go

update DBSpiqd..piq_upload_vax
   set piq_server_name=@@servername
 where piq_server_name="old_server"
go
```

DBSpjcm (SmartStream Projects Common)

```
update DBSpjcm..balance_reorg_request
   set project_server=@@servername
 where project_server="old_server"
go

update DBSpjcm..project_posting_reqst
   set project_server=@@servername
 where project_server="old_server"
go

update DBSpjcm..project_posting_reqst
   set source_server=@@servername
 where source_server="old_server"
go

update DBSpjcm..project_posting_reqst_comnt
   set project_server=@@servername
 where project_server="old_server"
go

update DBSpjcm..project_posting_reqst_comnt
   set source_server=@@servername
 where source_server="old_server"
go
```

DBSallc (SmartStream Allocations)

```
update DBSallc..alloc_user_definition
   set extract_server_id=@@servername
 where extract_server_id="old_server"
go
```

DBSmabl (SmartStream Bulk Load)

```
update DBSmabl..bulk_load_defaults
   set dist_ent_1_val=@@servername
 where dist_ent_1_val ="old_server"
go

update DBSmabl..bulk_load_log
   set dist_ent_1_val=@@servername
 where dist_ent_1_val ="old_server"
go

update DBSmabl..bulk_load_workflow
   set dist_ent_1_val=@@servername
 where dist_ent_1_val ="old_server"
go
```

DBShrpn (SmartStream Human Resources – Personnel & Benefits)

```
update DBShrpn..ben_elgb_rule
   set server_name=@@servername
 where server_name="old_server"
go

update DBShrpn..ben_elgb_rule_aud
   set A_server_name=@@servername
 where A_server_name="old_server"
go

update DBShrpn..ben_elgb_rule_aud
   set B_server_name=@@servername
 where B_server_name="old_server"
go
```

DBShapm (SmartStream Map)

```
update DBShapm..import_export_col_map
   set server_name=@@servername
 where server_name="old_server"
go

update DBShapm..import_export_ctrl
```

```
   set server_name=@@servername
 where server_name="old_server"
go

update DBShapm..import_export_proc_run_history
   set input_server_name=@@servername
 where input_server_name="old_server"
go

update DBShapm..import_export_proc_run_history
   set output_server_name=@@servername
 where output_server_name="old_server"
go

update DBShapm..import_export_proc_tbl_map
   set output_server_name=@@servername
 where output_server_name="old_server"
go

update DBShapm..import_export_procedure
   set input_server_name=@@servername
 where input_server_name="old_server"
go




/*

Edit this member.  Replace the following:

            Old Server Name

with the server name you want to be replaced.

*/

/*

Also remove updates for tables in databases that are not
present on the database server you are trying to update.  The
updates are represented by Component/Product.  Do a search on
*** to locate the different Components/Products.

*/

/*

  *** SmartStream Platform (required)
```

```
*/
update DBSCOMMON..attach
set wijt_location = @@servername
where wijt_location = 'Old Server Name'
go
update DBSCOMMON..help_request
set wijt_location = @@servername
where wijt_location = 'Old Server Name'
go
update DBSpscb..psc_security_detail
set psc_target = @@servername
where psc_target = 'Old Server Name'
go
update DBSarpc..arpc_request
set arpc_dest_srvr_name = @@servername
where arpc_dest_srvr_name = 'Old Server Name'
go
begin
      declare @rowcnt   int
      select @rowcnt = 1
      set rowcount 5000
      while @rowcnt > 0
            begin
                  begin tran
                        update DBSwact..message_queue_1
```

```
                        set prev_server_name = @@servername
                        where prev_server_name <> @@servername
                        select @rowcnt = @@rowcount
                  commit tran
            end
      set rowcount 0
end
go
begin
      declare @rowcnt   int
      select @rowcnt = 1
      set rowcount 5000
      while @rowcnt > 0
            begin
                  begin tran
                        update DBSwact..message_queue_1
                        set server_name = @@servername
                        where server_name <> @@servername
                        select @rowcnt = @@rowcount
                  commit tran
            end
      set rowcount
end
go
begin
```

```
        declare @rowcnt   int
        select @rowcnt = 1
        set rowcount 5000
        while @rowcnt > 0
              begin
                    begin tran
                          update DBSwact..message_queue_hist_1
                          set prev_server_name = @@servername
                          where prev_server_name <> @@servername
                          select @rowcnt = @@rowcount
                    commit tran
              end
        set rowcount 0
end
go
begin
        declare @rowcnt   int
        select @rowcnt = 1
        set rowcount 5000
        while @rowcnt > 0
              begin
                    begin tran
                          update DBSwact..message_queue_hist_1
                          set server_name = @@servername
                          where server_name <> @@servername
```

```
                        select @rowcnt = @@rowcount
                  commit tran
            end
      set rowcount 0
end
go
begin
      declare @rowcnt   int
      select @rowcnt = 1
      set rowcount 5000
      while @rowcnt > 0
            begin
                  begin tran
                        update
DBSwact..message_queue_hist_values
                        set server_name = @@servername
                        where server_name <> @@servername
                        select @rowcnt = @@rowcount
                  commit tran
            end
      set rowcount 0
end
go
begin
      declare @rowcnt   int
```

```
        select @rowcnt = 1
        set rowcount 5000
        while @rowcnt > 0
              begin
                    begin tran
                          update DBSwact..message_queue_values
                          set server_name = @@servername
                          where server_name <> @@servername
                          select @rowcnt = @@rowcount
                    commit tran
              end
        set rowcount 0
end
go

update  DBSwact..move_log
set target_svr = @@servername
where target_svr = 'Old Server Name'
go

update  DBSwact..msg_group_master
set wijt_location = @@servername
where wijt_location = 'Old Server Name'
go
```

```
update  DBSwact..network_access
set server_id = @@servername
where server_id = 'Old Server Name'
go


update  DBSwact..reassign_hist
set reassign_server = @@servername
where reassign_server = 'Old Server Name'
go

update  DBSwact..reassign_hist
set server_name = @@servername
where server_name = 'Old Server Name'
go

update  DBSwact..server_temp_password
set server_id = @@servername
where server_id = 'Old Server Name'
go

update  DBSwact..user_master_1
set wijt_location = @@servername
where wijt_location = 'Old Server Name'
go
```

```
update  DBSctlg..tbl_svr_db_xref_1
set from_server_id = @@servername
where from_server_id = 'Old Server Name'
go

update  DBSctlg..tbl_svr_db_xref_1
set server_id = @@servername
where server_id = 'Old Server Name'
go

update  DBSctlg..tbl_svr_db_xref_1
set dist_ent_1_val = @@servername
where dist_ent_1_val = 'Old Server Name'
go

update  DBSctlg..tbl_svr_db_xref_1
set dist_ent_2_val = @@servername
where dist_ent_2_val = 'Old Server Name'
go

update  DBSctlg..WIJ_SERVERS
set server_id = @@servername
where server_id = 'Old Server Name'
go
```

```
update  DBSosst..RQY_LOCATIONS
set LOCATION_NAME = @@servername
where LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RDS_DATA_SOURCE
set LOCATION_NAME = @@servername
where LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RMR_RUN_PARMS
set LOCATION_NAME = @@servername
where LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RDS_LOCATION
set LOCATION_NAME = @@servername
where LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RMR_BAL_TABLES
set LOCATION_NAME = @@servername
where LOCATION_NAME = 'Old Server Name'
go
```

```
update  DBSosst..RAN_HDR
set BLD_LOCATION_NAME = @@servername
where BLD_LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RPA_HDR
set BLD_LOCATION_NAME = @@servername
where BLD_LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RQY_HDR
set BLD_LOCATION_NAME = @@servername
where BLD_LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RRP_HDR
set BLD_LOCATION_NAME = @@servername
where BLD_LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RRP_FRAME_HDR
set BLD_LOCATION_NAME = @@servername
where BLD_LOCATION_NAME = 'Old Server Name'
go
```

```
update  DBSosst..RMR_REPORT_HDR
set BLD_LOCATION_NAME = @@servername
where BLD_LOCATION_NAME = 'Old Server Name'
go

update  DBSosst..RDS_LOCATION
set SERVER_NAME = @@servername
where SERVER_NAME = 'Old Server Name'
go

update  DBSosst..SRG_COLUMN_ASSOCIATION
set SERVER = @@servername
where SERVER = 'Old Server Name'
go

update  DBSosst..RPC_DSSBALANCETABLES
set SERVER = @@servername
where SERVER = 'Old Server Name'
go

update  DBSpiqd..piq_db_insert
set piq_server_name = @@servername
where piq_server_name = 'Old Server Name'
go
```

```
update  DBSpiqd..piq_eda_sql
set piq_server = @@servername
where piq_server = 'Old Server Name'
go

update  DBSpiqd..piq_storedproc
set piq_server_name = @@servername
where piq_server_name = 'Old Server Name'
go

update  DBSpiqd..piq_upload
set piq_server_name = @@servername
where piq_server_name = 'Old Server Name'
go

update  DBSpiqd..piq_upload_vax
set piq_server_name = @@servername
where piq_server_name = 'Old Server Name'
go

/*
  *** SmartStream Ledger (if you have it)
*/
```

```
update  DBSglep..control_parameter_values
set qualifier_type_value = @@servername
where qualifier_type_value = 'Old Server Name'
go

/*
  *** SmartStream Projects (if you have it)
*/

update  DBSpjcm..balance_reorg_request
set project_server = @@servername
where project_server = 'Old Server Name'
go

update  DBSpjcm..project_posting_reqst
set project_server = @@servername
where project_server = 'Old Server Name'
go

update  DBSpjcm..project_posting_reqst
set source_server = @@servername
where source_server = 'Old Server Name'
go

update  DBSpjcm..project_posting_reqst_comnt
```

```
set project_server = @@servername
where project_server = 'Old Server Name'
go

update  DBSpjcm..project_posting_reqst_comnt
set source_server = @@servername
where source_server = 'Old Server Name'
go

/*
  *** SmartStream Allocations (if you have it)
*/update  DBSallc..alloc_user_definition
set extract_server_id = @@servername
where extract_server_id = 'Old Server Name'
go

/*
  *** SmartStream Background Load (if you have it)
*/
update  DBSmabl..bulk_load_defaults
set dist_ent_1_val = @@servername
where dist_ent_1_val = 'Old Server Name'
go

update  DBSmabl..bulk_load_log
```

```
set dist_ent_1_val = @@servername
where dist_ent_1_val = 'Old Server Name'
go
update  DBSmabl..bulk_load_workflow
set dist_ent_1_val = @@servername
where dist_ent_1_val = 'Old Server Name'
go

/*
  *** SmartStream Payroll/Personnel (if you have it)
*/
update  DBShrpn..ben_elgb_rule
set server_name = @@servername
where server_name = 'Old Server Name'
go

update  DBShrpn..ben_elgb_rule_aud
set A_server_name = @@servername
where A_server_name = 'Old Server Name'
go

update  DBShrpn..ben_elgb_rule_aud
set B_server_name = @@servername
where B_server_name = 'Old Server Name'
go
```

```
update  DBShapm..import_export_col_map
set server_name = @@servername
where server_name = 'Old Server Name'
go

update  DBShapm..import_export_ctrl
set server_name = @@servername
where server_name = 'Old Server Name'
go

update  DBShapm..import_export_proc_run_history
set input_server_name = @@servername
where input_server_name = 'Old Server Name'
go

update  DBShapm..import_export_proc_run_history
set output_server_name = @@servername
where output_server_name = 'Old Server Name'
go

update  DBShapm..import_export_proc_tbl_map
set output_server_name = @@servername
where output_server_name = 'Old Server Name'
go
```

```
update  DBShapm..import_export_procedure
set input_server_name = @@servername
where input_server_name = 'Old Server Name'
go
```

SMARTStream®

Technical Reference
SmartStream Platform

Version 6.5

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1 SmartStream Architecture

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SmartStream Platform

The SmartStream platform provides common application services for SmartStream business applications, including security administration, activity lists, workflow control, agent processing, and interfaces to third-party products. The SmartStream platform consists of the following components:

Platform Services

A set of services that is available for use by all SmartStream applications. These services include the Browser, security, mail, workflow, document enablement, agents, database distribution and replication, and services for supporting multiple languages.

Application Architecture

A set of PowerBuilder-based ancestor windows used to build and run activity windows for SmartStream business applications. The activity windows built with the Application Architecture run on top of the common services provided by the SmartStream platform.

Batch Architecture

A set of APIs and services for building, scheduling, and running batch programs.

Decision Support Reporting Tools (DSS)

A set of tools for performing generic, application-independent queries and reports. The DSS Reporting Tools functions are 16-bit functions.

SmartStream Database

A set of database tables, views, stored procedures, and triggers, organized into table families, and used for accessing and storing data used by the platform.

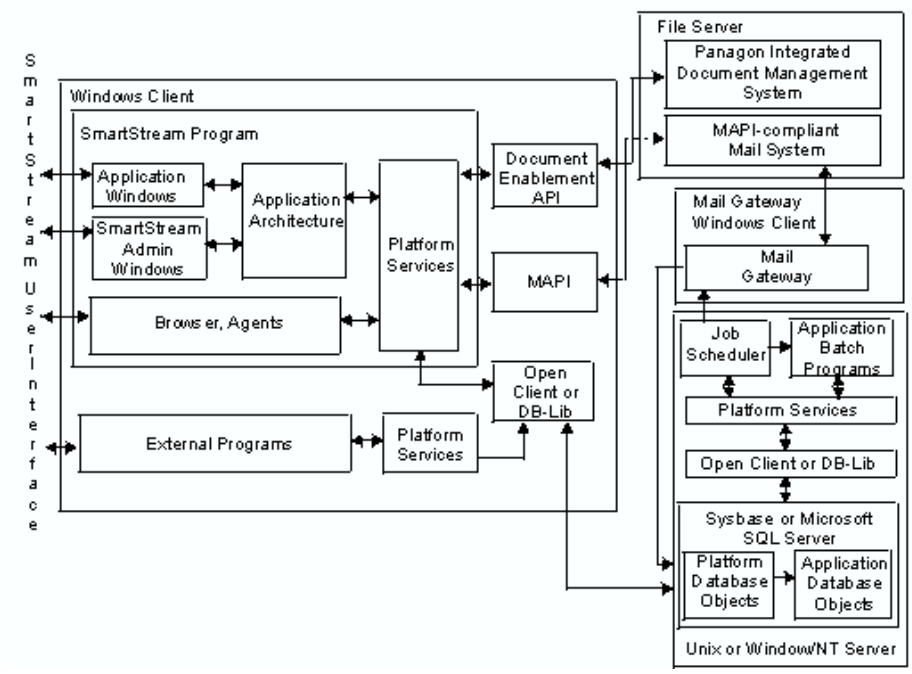
Installation and Migration Programs

Procedures that allow new users to install SmartStream and existing users to migrate from previous versions of the product.

Third-Party Products

These include the PowerBuilder run-time environment, Sybase Adaptive Server Enterprise or Microsoft SQL Server, Sybase Replication Server, Sybase Open Client or Microsoft SQL Client, Microsoft Access, and a variety of other products that are embedded in SmartStream.

The following figure illustrates the SmartStream platform and its place in the SmartStream architecture.



Platform Services

The SmartStream platform provides the following services to SmartStream business applications:

Browser

The SmartStream Browser allows the user to navigate to activity windows and other SmartStream features.

Security

The platform, in conjunction with the native database security, provides both activity-level security and data-level security. Activity-level security allows the administrator to control which users of the system can use which activities. Data-level security is used for securing sensitive data and controls the individual data records that a user can view or maintain.

Workflow

The platform workflow services allow all applications to be workflow enabled. Through the Workflow Workbench, system administrators can customize workflows and manage workflows that are in progress.

Distribution and Replication

The platform distribution and replication services provide methods for distributing, replicating and accessing data in a distributed environment. These services include:

- A method for grouping platform and application tables into table families
- A distribution catalog which allows applications to find a table family in a distributed system
- APIs for handling both synchronous and asynchronous multi-server database transactions.

Multilingual Services

The multi-lingual services within SmartStream allow end-users to connect to a single SmartStream installation, but view all screens in their own local language.

Document Enablement

The document enablement service allows external documents to be attached to records in application tables. These documents may be flat file documents stored in a network directory or documents stored in a document management system such as Panagon IDM from FileNET.

Agents

An agent is an electronic assistant that a user can set up to automatically perform repetitive tasks on his or her behalf. The SmartStream agent facility can process

incoming mail, process workflow To Do tasks, run an application or a Sybase stored procedure, and create or distributes reports.

Mail

The SmartStream platform allows applications to integrate with external mail systems such as Microsoft Mail.

For each of these services the platform provides:

- A user interface
- APIs to allow applications to invoke the service where appropriate
- Administrative tools to allow the administrator to configure and control the service.

Zoom to SmartStream

Besides launching activity windows from the SmartStream browser, users can launch activity windows directly from their desktop or from non-SmartStream applications using the pzoom32.exe.

To use this utility,

- SmartStream and the specified application must be installed
- The user must have a valid SmartStream ID and password
- The user must have the required SmartStream security.

Launching Activity Windows from the Desktop

Use the following command to define a program item to open an activity:

```
c:\sstrmxx\pzoom32.exe XXXYYYY
```

Where *XXXYYYY* represents the activity ID of the activity window you want to open. For example, entering the following command opens the Unposted Journals window:

```
c:\sstrmxx\pzoom32.exe fje0010
```

Launching Activity Windows from non-SmartStream Applications

When launching activity windows from a non-SmartStream application, you can choose to

- Enable the SmartStream logon and complete use of SmartStream functionality

or

- Bypass the SmartStream logon disable most SmartStream functionality

With each of these methods, you can also supply the keys to a particular activity window, so windows will display with data.

Launching Activity Windows with SmartStream Logon and SmartStream Capabilities

This method causes the normal SmartStream logon screen to appear before the specified activity window is launched. By launching windows with this method, users retain complete use of SmartStream functionality (for example, Activity Lists, To Do lists, and so on).

Note: To bypass the logon screen using this method, you can define a user's DBS.ini file with a user ID and password. This would allow the bypassing logon screen and retain all SmartStream capabilities.

To enable this method, add the following message to the non-SmartStream application:

```
Zoom Activity ID [key value key column ID]
```

Example

```
Zoom mim0820 BOS1 650 WH02 940
```

Launching Activity Windows without SmartStream Logon or SmartStream Capabilities

If you simply want to launch an activity window and not allow complete use of SmartStream functionality, add the following message to the non-SmartStream application:

```
AppFrameZoom UserID Password Activity ID [key
value key column ID]
```

Examples

```
AppFrameZoom USER12 baseball mim0820

AppFrameZoom USER12 baseball mim0820 BOS1 650
WH02 940
```

Use the SmartStream Reference Tool to retrieve a list of activity IDs.

Application Architecture

The Application Architecture provides a set of PowerBuilder ancestor objects and APIs that allow a developer to quickly build application windows that have a common look and feel and take advantage of the platform services. Most SmartStream application activities are built using the Application Architecture and are layered on top of the SmartStream platform.

The primary features of the SmartStream application architecture are described below.

Ancestor Windows

The Application Architecture for the business applications is based on a set of windows that use the concept of inheritance. All of the activity windows within the business applications are descendants of ancestor windows as defined by the SmartStream application architecture. The ancestor windows also contain user-defined objects that are also inherited by the descendant activity windows. These ancestor objects facilitate a common look and feel and a common development framework for building SmartStream applications.

The MDI Frame, Menus, and the Toolbar

The Application Architecture uses an MDI frame for the activity windows. This MDI frame provides common menu and toolbar options for most activity windows, such as File and Edit menu commands and Next Task and Next Step toolbar buttons. In addition, the application architecture provides generic features for such items as File Open and Item Browse.

Batch Architecture

The batch architecture consists of the Job Server for controlling the execution of batch programs and a set of C-based APIs to support development of batch programs that can be integrated into the SmartStream environment.

Note: If you are running HP-UX, you must set the SHLIB_PATH environment variable to point to the Sybase shared libraries directory.

Example:

```
SHLIB_PATH=/sybase/install/lib; export
SHLIB_PATH
```

Check with your system administrator for the appropriate shell commands to perform these changes.

Job Server

Job Server includes several SmartStream activity windows for configuring and monitoring the Job Server environment.

Activity Windows. Job Server activity windows exist for configuring the Master Scheduler, ARPC programs, and Poll programs. There are also activities for defining jobs and monitoring their execution, viewing the current status of Poll and ARPC processes, and a log of Master Scheduler activity, periodically.

Master Scheduler. The Master Scheduler coordinates the running of jobs in the SmartStream environment. Where a job is a collection of steps, the Master Scheduler sequentially marks steps as ready to run. When all steps of a job have been run, Master Scheduler builds a job results document and distributes it to the mailing list specified with the job.

Poll. Poll executes the steps that have been marked as ready to run by the Master Scheduler. Poll programs can be dispersed throughout the environment. Polls can be running on many different machines with multiple Polls running on any particular machine. The class that a job step has been defined with determines which Poll will process the step. In this manner the interaction between the Master Scheduler and the Poll programs provide a distributed processing environment.

Asynchronous RPC. The Asynchronous RPC facility is a mechanism for reliably distributing business logic to multiple servers in the environment. ARPC allows the user to define one or a group of database managment system (DBMS) stored procedures to be executed on a set of DBMS servers. ARPC guarantees the stored procedures will be executed on each server, and that the execution of the procedures will occur in the same order on each server.

APIs

The APIs that are currently available to users are the Workflow API, the Document Enablement API, the Mail API, the Structures API, and the Job Scheduler API. These APIs are delivered as part of SmartStream Builder and give the user the ability to write programs that can interact with the workflow, document enablement, mail, structures, and job scheduling engines.

Decision Support (DSS)

The SmartStream Decision Support Services include a set of 16-bit Reporting Tools and a Reporting Manager.

Reporting Tools

SmartStream Reporting Tools includes the following 16-bit components:

Analyzer. Enables you to explore, evaluate, graphically display, and distribute your corporate information quickly and efficiently. For example, a manager can use Analyzer to review and analyze actual expense amounts versus budget amounts or perform a sales analysis.

Management Reporter. Enables you to create, preview, and produce financial reports from report specifications.

Reporter. Enables you to:

- Create online and printed reports based on data stored in your enteprise's database tables or on queries built using SmartStream Query
- Refine the report's appearance in Microsoft Access Designer
- Distribute the report to coworkers or managers in an electronically viewable format using your electronic mail system.

Query. Enables you to:

- Build a SQL query that selects data from your enterprise's database tables
- Apply criteria, calculations, and/or parameters to further focus the result set extracted
- Distribute the output through your electronic mail system to coworkers and managers.
- If you are familiar with SQL, you can build your query using SmartStream Query's SQL Text feature. Otherwise, you can use Query's QBE grid to build the query.

Report Series. Enables you to run a collection of analyzers, queries, reports, or SQL files automatically as a single job at a specific time (immediately, daily, weekly, or monthly) and distribute the results to a person or group of people through your electronic mail system.

Structures. Lets you build hierarchical models and associate them with your business data so you can:

- Report, analyze, control, or secure the data
- Validate data input by SmartStream Financials and provide a cross-system referential check for SmartStream Human Resources.

Using the Group Maintenance tool in Structures, you can define types of object groups and whether the objects in them will be distributed or replicated.

Navigator. Enables you to open and run any Reporting Tool object without having to use the particular Reporting Tool. In this way, you can use Navigator as a launch pad for the other Reporting Tools. You can also use Navigator to:

- Run a selected object
- Transfer ownership for any object you created
- Rename, refresh, and delete selected objects.

Reporting Manager

SmartStream Reporting Manager is a suite of administrative tools made up of the following components:

Locations and Data Sources. Allows you to define user-friendly names for your enterprise's servers and databases and determine user access privileges at the server/database level.

Business Views. Allows you to define views of the data in your Information Warehouse (or any other collection of data), secure the data, and facilitate end-user access.

Reporting Policy Controls. Allows you to define and update information about amount classes, currencies, ledger entities, and elements of the accounting key.

Third-Party Products

SmartStream requires several third-party products. These are the major products:

PowerBuilder Run-time environment. The SmartStream executable and several other programs delivered as part of SmartStream are built using PowerBuilder.

Sybase or Microsoft SQL Server. SmartStream stores all relational data on a Sybase or Microsoft SQL Server.

Sybase Open Client or Microsoft SQL Client. Provides the programming interface and network transport to allow SmartStream to access the database.

Microsoft Foundation Class library run-time environment. The Microsoft Foundation Class libraries are used by interactive components of SmartStream that are built outside of the application architecture.

Sybase Replication Server. Sybase replication server is used for replication of data in a distributed configuration.

Microsoft Access. Microsoft Access is used as a reporting engine for the SmartStream Reference Tool, the 16-bit DSS Reporting Tools, and the SmartStream applications.

Visual Basic Run-time environment. Used by the DSS Reporting Tools.

Open Database Connectivity (ODBC). Provides an interface between the Visual Basic and Microsoft Access based tools and the database.

Database Organization

Two important features of the SmartStream architecture are the organization of database objects (tables, stored procedures, triggers, and views) into **table families** and the use of a **distribution catalog** for storing these database objects.

SmartStream Table Families

All database objects in SmartStream are organized into table families. A table family is a group of related tables, stored procedures, triggers, and views that are treated as a single unit in terms of their distribution and replication properties.

When you install SmartStream, you install a single copy of each table family on a database server. This allows data in the tables within the family to be modified using single-server transaction management and to be joined with each other. Tables within a table family can also be joined with tables in replicated table families.

Table families can be distributed or non-distributed. For non-distributed table families, there is one updatable copy of the table family for the entire installation. Non-distributed table families may or may not be replicated. See Overview of the SmartStream Distributed Environment for further details about replication.

Distributed table families are distributed **horizontally** by row; that is, certain rows may reside on one server while other rows may reside on another server. In these cases, SmartStream determines how to locate the rows based on one or two distribution entities.

A **distribution entity** is a column in a table whose value is used to define how the rows in the table are distributed. For example, SmartStream Supplies Management data is distributed by a distribution entity called site. If an installation has a Boston plant, an Atlanta plant, and a San Francisco plant, then those sites are the distribution entity values. At run-time, the Supplies Management application uses the site distribution entity to find the server and database where the needed data resides.

Referential integrity between tables is maintained through the use of triggers, application logic, or both. Triggers and stored procedures can only reference tables that reside within a single instance of a single table family or tables which are replicated to all servers in the system.

In a distributed system, table families can also be replicated, creating read-only (subscription) copies of the data. The subscription copies are used to improve overall system reliability by eliminating the dependency on the primary copy for read-only operations. The subscription copies also allow joins between the replicated table families and tables in other table families in the system.

The SmartStream Distribution Catalog

The SmartStream Distribution Catalog (also called the table server database cross-reference or tsdx) is the repository of all SmartStream database objects and defines

how those objects are physically distributed across database servers. This catalog information is stored in the DBSctlg database.

The Distribution Catalog provides an address book for SmartStream application table families so that applications can function independently of where the table family's objects actually reside.

Most SmartStream applications access the database using stored procedures. By taking advantage of the Remote Procedure Call (RPC) function, the DBMS can use the SmartStream distribution catalog to find a stored procedure and execute it even when the client application (SmartStream) is not directly connected to the server where the stored procedure resides. The stored procedure is prefaced at runtime with the server, database, and stored procedure owner. The DBMS then routes the stored procedure to the named server and database.

This eliminates the need to hard code the physical server and database names into SmartStream and eliminates the necessity of code changes when the applications are implemented.

The Distribution Catalog itself is in the ctlg table family. All SmartStream interactive, reporting, and batch programs read the server and database of the ctlg table family from .ini files. Once these programs have located a copy of the ctlg table family, they can use it to find any other family in the system.

2 SmartStream Security

Chapter Contents

2-1 Introduction
2-2 Technical Details

Introduction

SmartStream security is based on a combination of its interaction with the DBMS and its own security schemes that limit access to activity windows and table-level data.

Users view data that resides on DBMS database tables using SmartStream activity windows. Any updates a user makes to that data using the window are propagated to the appropriate table or tables through stored procedures.

For further information about SmartStream security and how SmartStream interacts with the DBMS, refer to Users and Security Groups.

Technical Details

SmartStream security uses a combination of activity windows and database tables to determine what tasks a user can perform when using SmartStream. All of the SmartStream security-related database tables are in the DBSwact database.

For example, a security administrator, using the Activity Security window, enters information that determines what activities a user can access, whether or not the user can maintain or just view data using those activities, what days of the week the user can access those activities, and so forth. This information is stored in the user_security table.

The following sections explain, from a database perspective, how SmartStream security works.

Security Administrators

SmartStream security uses the concept of a security administrator. A security administrator is a user who is assigned responsibility for administering a set of activities. Therefore, before being set up as a security administrator, the user must have a valid SmartStream user ID on the user_master table.

SmartStream is delivered with the prepackaged user DBS. This user can, among other things, create SmartStream security administrators. User DBS assigns the activities to a security administrator, who is then responsible for assigning these activities to other users. SmartStream administrator data is stored in the admn_act_list table.

When a user who is a security administrator accesses the Activity Security window, the window is populated with the list of activities that are in the admn_act_list table for the security administrator's user ID. The security administrator can then assign these activities to SmartStream users and security groups.

Activity Security

Activity security information for a user is stored in the user_security table. Activity security information for a security group is stored in the group_security table. The information stored in these tables is based on the information a security administrator enters using the Activity Security window.

When a user attempts to use an activity, SmartStream looks in the user_security and group_security tables to determine what tasks the user can perform using the activity.

Creating an Activity List

The following table describes the process that occurs when a user creates an activity list.

Stage	Description
1	A user creates an Activity List in SmartStream. This information is stored in the user_act_list table.
2	The user is presented with a list of all activities available to the user. This list consists of all activities the user has explicit access to in user_security plus all activities the user's group has security for in group_security that the user has not been explicitly denied security for in user_security.
3	The user chooses the activities from the All Available Activities list that are to be part of this Activity List. This information is stored in the user_act_list table.

Accessing an Activity

The following table describes the process that occurs when a user opens an activity from an activity list.

Stage	Description
1	The user accesses a particular activity from an Activity List. SmartStream looks in the group_security table to determine if the security group the user belongs to has security to access this activity.
2	SmartStream looks in the user_security table for this user ID to determine if the user has security to access this activity.
3	If the activity appears in both the group_security table for the user's security group ID and the user_security table for the user ID, the information in the user_security table supersedes the information in the group_security table.
4	SmartStream retrieves additional information about this user's security for this activity, such as access privilege (update, delete, insert, view), what security entity values this user can access data for, and so forth. This information is taken from the group_security or user_security table, depending on the results of the search in stages 2 and 3.
5	The user uses the activity under the constraints of the security

Data Security

Security processing for data security is similar to activity security processing. However, when a user attempts to use an activity, the activity_data_control table is checked to see if the activity has data controls.

Note: The check of the activity_data_control table is not explained in the previous section on activity security processing for purposes of simplification. Activities without data controls are not found on the activity_data_control table and therefore processing continues as described in that section.

The following table describes the processing that occurs when users access an activity that has associated data controls.

Stage	Description
1	A user accesses an activity. After all of the activity security processing (described earlier) occurs, the activity_data_control table is checked to see if data controls exist for the activity.
2	SmartStream reads the data_ctrl table to determine if the data control type is maintenance or view.
3	The data_ctrl table is read to determine if the key data the user entered falls between any of the maintenance or view data control ranges defined for this user or the user's security group. If user and security group data control range information are both found, the user information supersedes the security group information.
4	If no maintenance or view data control range information is found for the user or the user's security group, an error message is returned and the user cannot access any data using the activity.
5	If maintenance or view data control range information is found for either the user or the user's security group, the user can maintain or view the data (whichever is allowed). **Note:** If the data control type for the user and activity is maintenance, the user can only perform maintenance based on the access type (insert, update, delete, view) on the user_security or group_security table.

For further information about SmartStream security and how SmartStream interacts with the DBMS, refer to Overview of Security.

3 Database Issues

Chapter Contents

3-1 SmartStream-Delivered Databases
3-4 Database Connectivity
3-9 Monitoring Space Utilization
3-10 Database Server Performance Recommendations
3-17 Backup and Recovery
3-18 SmartStream Reference Tool

SmartStream-Delivered Databases

The following databases are delivered to all SmartStream sites:

- DBSarpc
- DBScfrm
- DBSCOMMON
- DBSctlg
- DBSosxp
- DBSosst
- DBSpiqd
- DBSpscb
- DBSwact
- DBSwasm

DBSCOMMON, DBSwact, and DBSctlg, are briefly described in this section. Use the SmartStream Reference Tool for more detailed information on the tables contained in these databases and for information on DBSpiqd, the SmartStream Connect database, DBSosst, the Structures database, DBSpscb, the Job Scheduler database, and DBSarpc, the asynchronous remote procedure call database.

You can also use the SmartStream Reference Tool for information about databases that are specific to SmartStream business processes.

DBSCOMMON

The DBSCOMMON database contains information that is common to all SmartStream applications. This database contains information on SmartStream error messages, next available number processing, language and country codes, and the SmartStream Product Request application.

Table Families

The DBSCOMMON database contains the following table families:

Table Family	Description
avnm	Next available number processing.
lang	Language and country codes.
mesm	SmartStream error messages.
supt	SmartStream Product Request application.
supc	Product Support Common.

DBSctlg

The DBSctlg database consists of a set of tables that comprise the SmartStream Distribution Catalog. It contains information about the location of applications, table families, and stored procedures on servers and databases, as well as the master tables for applications, tables, and table families.

Table Families

The DBSctlg database contains only one table family, ctlg. This table family contains information about the SmartStream Distribution Catalog.

For more information on the DBSctlg database, refer to the section on the SmartStream Distribution Catalog.

DBSwact

The DBSwact database contains information related to security and workflow processing, that is, information about workgroups, To Do messages, steps, events, and the message queue. Additionally, this database contains information related to the SmartStream desktop (drawers, folders, documents) and agents.

Table Families

The DBSwact database contains the following table families:

Table Family	Description
wijt	The SmartStream desktop and the workflow message master tables.
wact	Workflow and security.

Database Connectivity

This section discusses how SmartStream client applications connect to database servers. Topics include

- Overview
- Database APIs and Services
- Network library drivers.

Overview

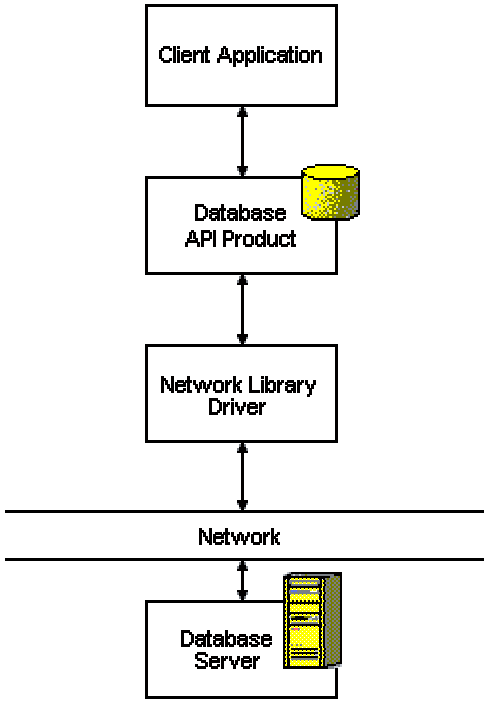
SmartStream data is maintained in Sybase Adaptive Server Enterprise or Microsoft SQL Server databases, which SmartStream users can access and manipulate on their client workstations.

SmartStream client applications access this data as follows:

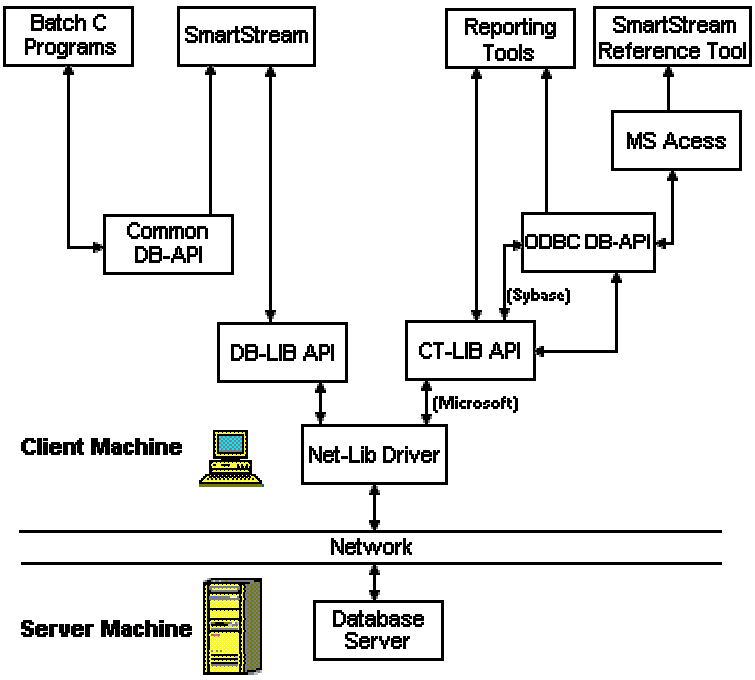
Step	Action
1	The SmartStream client application passes a request to a database API.
2	The database API passes the request to a network communications library.
3	The network communications library passes the request to the server.

Note: The SmartStream client application for Microsoft SQL Server uses the Microsoft Distributed Transaction Coordinator (DTC) for two-phase commit transactions.

This implementation is illustrated in the following figure:



All SmartStream client applications use one or more database API products, as well as a network library product. The following diagram shows how an application accesses a database on a database server:



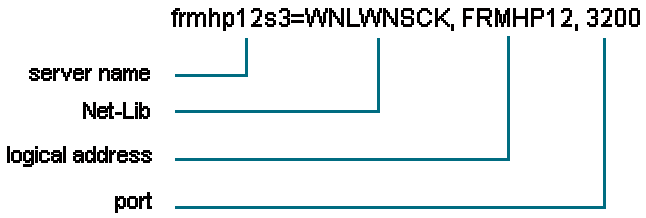
Database APIs and Services

SmartStream clients use several database API products and services to communicate with the network libraries, as shown in the following table:

API or Service	Vendor	For further information, see
DB-Library	Sybase	Sybase Open Client DB-Library/C Reference Manual
DB-Library	Microsoft	MS SQL Server Online
CT-Library	Sybase	Open Client Client-Library/C Reference Manual
Common Database	Geac	DBAPI Programming Guide
ODBC	Microsoft	ODBC API Reference ODBC API Help (installed with MS Visual C/C++)
Distributed Transaction Coordinator	Microsoft	MS SQL Server Online

DB-LIB and CT-LIB (Server Name Lookup)

For Microsoft SQL Server DB-LIB the server name is located in the SQL Server section of the win.ini file. Each line in this section defines a server name, the network library to use, the logical IP address, and the port, as shown in the following example:



For Sybase DT-LIB or CT-LIB, the server name is located in the sql.ini file located in the INI directory where Sybase Open Client is installed. Each line in this section defines a server name. the network library to use, the IP address, and the port, as described above.

Common Database API

The SmartStream installation places the DLLs necessary to use the Common DBAPI (PDBAPI32.DLL and PDBLIB32.DLL) in the SmartStream installation directory on the client machine.

ODBC API

The SmartStream Reporting Tools and the SmartStream Reference Tool both require ODBC. The files needed for running ODBC are installed during the SmartStream installation process. See the *SmartStream Installation Guide* for details.

Distributed Transaction Coordinator Service

Microsoft SQL Server uses the Microsoft Distributed Transaction Coordinator to manage two-phase commit transactions. DTC runs as a service on the client workstation. See the *SmartStream Installation Guide* for details.

Network Library Drivers

All SmartStream client applications use a network communications product, or network library, to initiate a link to the server. The client begins the communication by specifying a database server, User-ID, and password.

Sybase

The SmartStream network library (Net-Lib) products for Sybase include:

- WNLWNSCK (Windows Sockets)
- WNLLWPTC (Novell Lan Workplace)
- WNLNOVSP (Novell IPX/SPX)
- WNLNMP (Named Pipes)
- WNLFTPTC (FTP PC/TCP)

Refer to the Net-Library Drivers portion of the Open Client/Server Installation Guide for further details.

MS SQL Server

The SmartStream network library (Net-Lib) products for MS SQL Server include:

- DBMSSOC3.DLL (Windows Sockets)
- DBMSRPC3.DDL (Multi-protocol)
- DBNP3.DLL (Named pipes)
- DBMSSPX3.DLL (Novell IPX/SPX)

Troubleshooting Database Connectivity Problems

This section discusses troubleshooting information for both Sybase Adaptive Server Enterprise and MS SQL Server.

Sybase Adaptive Server Enterprise

If SmartStream displays "Cannot Locate WSYBDB.DLL" at startup, it means you are not running Open Client 12.0. This may happen because you are still running an older version of Open Client, or the directory where Open Client is installed is not specified in your path.

To troubleshoot, you need to remove any previous versions of Open Client, make sure your system variables are set for Open Client 12.0 and make sure the right DLLs are loaded into memory.

Remove Previous Versions of Open Client

First, remove any previous versions of the Open Client DLLs: LIBSYBDB.DLL. Be sure to search and remove the DLLs from the following directories:

- The current directory
- The Windows directory
- The Windows\System directory
- Any other directory listed before the Open Client directory in your path

Check Your System Variables

Check your system variables by typing **set** at a DOS prompt. The listing should include the variable, Sybase, which contains the path to the Open Client installation directory.

If the Sybase variable is not found, you will know that the wsybset.bat file has not been executed. This file resides in the *open_client\bin* directory. If necessary, exit Windows and run wsybset.bat.

Verify DLLs

The following table describes how to verify whether the necessary DLLs are running:

Step	Action
1	Start WISQL.EXE.
2	After the window is displayed, start the Sybase application, WDLLVERS.EXE, which displays a list of DLLs loaded in memory.
3	Set the view to display only Sybase DLLs. You should see ▪ At least one of the Open Client Net-Lib DLLs (Refer to Network Library Drivers for a complete list.) ▪ Several DLLs that are loaded because you are running WISQL.EXE. These include the Open Client DLLs: WCOMNLIB.DLL, WCSLIB.DLL, WINTLLIB.DLL, WTCLLIB.DLL, and WCTLIB.DLL. ▪ The Open Client DLLs, WSYBDB.DLL and LIBSYBDB.DLL, if you are running SmartStream. ▪ The Open Client DLL, WCTLIB.DLL, if you are running Microsoft Access.
4	Make sure the DLLs are loaded from the Open Client directory. You can click on any DLL to display version information.

Monitoring Space Utilization

This section provides information about SmartStream database tables and space utilization. Use this information to maintain tables in your system to make sure system resources are available for SmartStream client/server processing.

SmartStream tables, the database transaction log, and downloaded files (via SmartStream Connect) consume space on servers in your SmartStream system. To make the best use of this space, make sure that only current information resides in the tables and files.

message_queue_1 Table

Monitor the disk space being used by the message_queue_1 table frequently if workflow is used extensively at your site.

If you are a DSS-only site (you are not using any SmartStream business process), this table has a low amount of writes and therefore does not have to be monitored closely.

When you run a SmartStream business process and use workflow extensively, there are a large amount of writes to this table. Therefore, you not only need to monitor the amount of space being used by this table, but you may also want to provide extra space to prevent the database from filling up.

message_queue_hist_1 Table

The amount of space consumed by the message_queue_hist_1 table is directly related to the amount of writes to the message_queue_1 table and the frequency of use of the Track Task History option is used.

Note: The Track Task History option is set on the Assignment tab of the Workflow Workbench. See the SmartStream Administrator's Help for details.

Frequently monitor the space being used by this table, particularly if workflow is used extensively and the Track History option is used.

Use the Task History window to purge information from this table to prevent it from growing too large.

Database Server Performance Recommendations

This section discusses some general DBMS performance recommendations. For more detailed information, refer to your DBMS documentation.

Update Statistics for All Tables

The update statistics command provides the DBMS with information about the distribution of key values in the indexes. This information enables the DBMS to make the best possible decisions about which indexes to use when it processes a query.

Use trunc. log on chkpt. Option

The following SmartStream databases are delivered with the DBMS database option trunc. log on chkpt. (truncate log on checkpoint) enabled.

- DBSarpc
- DBSCOMMON
- DBSctlg
- DBSdemo
- DBSosst
- DBSosxp
- DBSpiqd
- DBSpscb
- DBSwact
- DBSwsam

When the trunc. log on chkpt. option is enabled, the transaction log for the database truncates (committed transactions are deleted) every time the checkpoint process occurs (approximately once a minute, but a specific interval between checkpoints can be set).

Note: When the database owner (dbo) runs the checkpoint process manually, the transaction log does not truncate.

You should perform regular dumps (for example, daily) of the databases so that you can recover past transactions. However, if you have a media crash between dumps, you lose all transactions performed between the dumps.

Disabling trunc. log on chkpt. Option

While we deliver the databases previously mentioned with trunc. log on chkpt. enabled, you should disable it so you can recover all transactions in the event of a media failure. If you do so, be aware that

- Transaction logs can grow to large sizes when trunc. log on chkpt. is disabled
- The amount of space that SmartStream allocates to transaction logs should be increased (see SmartStream-Delivered Databases).

When trunc. log on chkpt. is disabled, you should perform regular dumps of the transaction logs (for example, daily) to prevent the logs from growing so large that you run out of space in the database. Then, you can dump the databases less frequently (for example, weekly) and, in the event of a media crash, still be able to recover transactions performed between database dumps from the transaction logs.

Install Devices into Raw Partitions (UNIX Operating System Users Only)

Except for tempdb, which should be installed on a file system device, you should install master and other devices into raw partitions, and make sure the user ID SYBASE is the owner of the device files.

A raw partition is an area of disk that does not contain a UNIX file system. If you install DBMS devices into a partition that contains a UNIX file system, the operating system duplicates some of the processing that DBMS performs. This duplication

- Hinders performance
- Wastes memory
- Potentially reduces recoverability in case of a media crash.

Hinders Performance

The operating system has internal buffers and caches that are used by file systems. If the DBMS is installed into a partition that contains a file system (it is not a raw partition), the DBMS's caching mechanism is duplicated, and transactions have to pass through another layer of file system code.

Wastes Memory

As described in the previous section, the operating system has internal buffers and caches that are used by file systems. DBMS provides its own caching mechanism. Therefore, use of the operating system's caches for DBMS processing is a waste of the operating system's memory that could be used for other processing.

Potentially Reduces Recoverability

As previously mentioned, DBMS and the operating system each have their own caching mechanisms. When a DBMS transaction occurs, updates are written to the DBMS cache.

If DBMS devices are installed in a partition that includes a file system, when the checkpoint process commits the transaction, DBMS would interpret the transaction as being written to disk, when it actually was written to the operating system's cache.

If a system crash occurs at that point, the transaction would be lost because it was never written to disk.

Place Databases and Transaction Logs on Separate Devices

Allocate partitions on separate physical devices for databases and their transaction logs.

By placing a database and its transaction log on separate devices (logical or physical, although a separate physical device enhances performance), you can have up-to-the-minute recoverability in case of a media crash on the device containing the database (providing trunc. log on chkpt. is disabled).

In this case, you load the most recent dump of the database and apply recent transactions from the log that were lost in the crash.

Sample DBMS Configuration

This section discusses the following DBMS configuration issues:

- Configuration variables
- Memory
- Procedure and data caches

These recommendations are for a 200-user connection system. They assumes the system has at least 40 MB of memory. You can display the DBMS configuration at your enterprise by running the sp_configure system stored procedure.

For more detailed information, refer to the *DBMS System Administration Guide* and the *SmartStream Installation Guide*.

Configuration Variables

This section discusses several configuration variables.

User Connections

The user connections variable is the maximum number of users that can be simultaneously connected to DBMS. Do not confuse this variable with the maximum number of processes allowed. That value is based on the user connections variable, as well as other system activity.

We recommend that you allow for at least two times as many user connections as you have users. For example, if you have 200 users, type 400 as the value of the user connections variable.

Memory

The memory variable sets the size of available memory in 2-KB units. The DBMS default is 4096 2-KB units (or roughly 8 MB). While this is the DBMS default, we recommend a minimum of 64 MB of memory for DBMS.

If your system contains a great deal more in available memory than the DBMS default or the SmartStream recommended minimum (such as the system in the sample configuration, which assumes 40 megabytes), you should allocate that memory to DBMS, after operating system and other system memory needs are met.

The more memory available to DBMS, the more resources it has for internal buffers and caches. This reduces the number of times the server has to access the database device for static information and compiled procedures.

The amount of memory left over after DBMS's memory needs are met is divided between the procedure cache and the data cache. These caches are discussed next.

Procedure and Data Caches

The procedure cache variable is the percentage of memory allocated to the procedure cache after DBMS's memory needs are met. The procedure cache is the area of memory where the most recently used stored procedures are stored.

The data cache is the area of memory where the most recently used data pages or index pages are stored. If DBMS can find information (a procedure, or an index page, or data page) in these caches, it is not necessary for it to read it from the disk, which is a slower source of I/O.

The DBMS default run value is 20, which means 20% of the available memory is used for the procedure cache, with the remaining 80% being allocated to the data cache.

The optimum value for this variable differs from application to application. However, because SmartStream applications (such as SmartStream Financial) are stored-procedure-intensive, we recommend you increase the value of this variable to a 35 if using the minimum configuration of 64 MB.

Also, if your site runs a lot of different procedures and ad hoc queries, that is another reason to increase this value.

Efficiency Scripts

We supply several database efficiency scripts. Each SmartStream table family has a different script, but each script performs the same functions.

Why Use the Scripts?

When the SmartStream databases are installed, DBMS dynamically builds query plans for all stored procedures and triggers based on the key distribution of the data in the table.

Initially, the tables are empty, so most query plans are built with table scans built in. As update activity (inserts, updates, deletes) against the tables increases, system performance degrades due to the table scans.

By running the efficiency scripts, the query plans are rebuilt using the new statistics. Once a sufficient number of rows are in the table, the new statistics will indicate that indexes, rather than table scans, should be used. The use of indexes will be more efficient than the table scans, and system performance will be improved.

Script Functions

These scripts perform the following functions in the order listed:

- Drops and rebuilds indexes (which updates statistics)
- Performs sp_recompile on all tables

Drop and Rebuild Indexes

Dropping and rebuilding indexes provide two primary benefits:

- It updates the statistics, which provide information about the distribution of key values in the indexes. The query optimizer uses this information to make the best possible decisions about which indexes to use when it processes a query.
- It cleans up page splits that may exist in the physical area on the disk where the index is stored.

The sp_recompile Stored Procedure

The sp_recompile system stored procedure flags tables so that the next time a stored procedure is run against the table, the stored procedure is recompiled.

The recompile of the stored procedure rebuilds the query plan for stored procedures so that they use the new statistics generated by dropping and rebuilding indexes as described in the prior section.

Script Filenames

Each script drops and rebuilds indexes and performs sp_recompile for all of the tables within one table family. Therefore, each script filename begins with a 4-character table family ID.

Additionally, the scripts reside in subdirectories on your file server that contain the appropriate table family ID. For example, the path where the efficiency script for the ctlg table family resides resembles the following designation:

[net drive]:\dbms\ctlg\ctlgeff.sql

The following table provides the file name of each script, what table family the script runs against, and the database which the table family belongs to:

Filename	Table Family	Database
arpceff.sql	arpc	DBSarpc
avnmeff.sql	avnm	DBSCOMMON
ctlgeff.sql	ctlg	DBSctlg
langeff.sql	lang	DBSCOMMON
mesmeff.sql	mesm	DBSCOMMON
piqdeff.sql	piqd	DBSpiqd
pscbeff.sql	pscb	DBSpscb
supteff.sql	supt	DBSCOMMON
wacteff.sql	wact	DBSwact

When to Run Scripts

These scripts should be run on an ongoing basis. The exact interval between the running of the scripts is based on the level of database activity at your site.

Also, you do not have to run these scripts against static tables after installation of SmartStream is complete.

How to Run Scripts

Each script is run in the database where the table family of the script belongs. For example, wacteff.sql is run in the DBSwact database, while ctlgeff.sql is run in the DBSctlg database.

Type the following command at a DOS prompt to run an efficiency script:

isql -U[user ID] -P[password] -S[server name]
-i[efficiency script file name] -o[output file name]

Note: If the file server drive and directory where the efficiency script files are located is not in your DOS search path in your autoexec.bat file, you need to use the full path name after the -i option in the previous example when specifying the efficiency script file you want to run.

For example, to run the ctlgeff.sql script, the command line resembles the following sample:

isql -UDBS -Ppassword -Sfrmhp12s4 -ictlgeff.sql
-octlgeff.out

Note: The preceding command assumes you are using ISQL to run the efficiency scripts. However, you may use another database access tool such as Q+E or SAF.

The Efficiency Scripts and sp_spaceused

Run the DBMS system stored procedure sp_spaceused before and after running the efficiency scripts.

The sp_spaceused stored procedure provides the following output:

```
database_name          database_size
---------------------------- ----------------------------
DBSwact                    30 MB
reserved      data         index_size   unused
--------------- -------------- ----------------------------
13196 KB     7502       3490 KB      2204 KB
```

Assuming this is the information that sp_spaceused provided before the efficiency script was run, observe the change in the **data**, **index_size**, and **unused** columns after you have run the efficiency script. If the value in the **data** column, **index_size** column, or both, decreases by a significant amount *and* the **unused** column increases by a significant amount, then the script cleaned up a great deal of page splits for you.

If a significant change did not occur to the values in these columns, then actual data, rather than unused space caused by page splits, is occupying space in the database. This can be a problem if the value in the column is too small. If the value is too small, you may want to increase the physical size of the database to prevent the database from filling up.

Backup and Recovery

Perform database backup and recovery using your DBMS's backup and recovery mechanisms.

A DBMS provides the following two types of recovery:

- One that is done automatically every time the DBMS restarts
- One that must be performed manually

Automatic Recovery

The automatic recovery mechanism protects you from system failures. All transactions completed before a system crash are written to the database device (committed), while transactions not completed before a system crash are deleted (rolled back).

Manual Recovery

The manual recovery mechanism is the only means to recover from a media crash. This mechanism is accomplished using the **dump** and **load** commands. The **dump** command backs up databases or transaction logs to tape or other dump media. The **load** command loads the database from the dump media to the database device.

Refer to the *SQL Server System Administration Guide* for more detailed information on how to use DBMS's backup and recovery mechanisms.

SmartStream Reference Tool

The SmartStream Reference Tool allows you to query your own server to access detailed information about SmartStream databases. The tool is available as an activity from the SmartStream browser.

Before you run the SmartStream Reference Tool, be sure

- Microsoft Access is installed.
- The [Report] section of the dbs.ini file contains the current path for Microsoft Access.
- You have set up your ODBC Data Sources for all the servers in the system.

To generate a report, you select a report type and then an application, table family, and table from the drop-down lists. When you choose OK, you start an Access query based on the information you have provided. This query generates a pre-formatted report that can be viewed or printed as needed. The following table describes the database reports that the SmartStream Reference Tool can generate.

Report Type	Description
Tables	Provides descriptions for the selected tables.
Table Column Details	Lists detailed column information for the selected tables.
Table Differences	Compares the tables defined in the sysobjects table with the tables defined in the SmartStream table master. This report is intended for troubleshooting purposes, and ordinarily, there should be few or no differences.
Stored Procedures	Lists the stored procedures for the selected tables or table families.
Triggers by Target Table	Provides a list of the selected tables and descriptions of the SQL triggers that operate on those tables.
Trigger by Triggering Table	Provides a list of the selected tables and descriptions of the SQL triggers that reside within those tables. These triggers perform functions on other database tables, that is, the target tables.
Steps by Activity	Lists selected SmartStream activities and describes the events, steps, and next steps associated with those activities.
Workflow by Activity	Lists selected SmartStream activities and describes the workbooks and workflows associated with those activities.
Workflow by Workbook	Lists each workflow step in a workbook, along with any entry conditions, assignment conditions, and column information.
Activity by Data Control	Lists activities and their associated data control definitions. These definitions provide data-level security and are used by various SmartStream applications.

Report Type	Description
Data Control by Activity	Lists data control definitions and their associated activities. These definitions provide data-level security and are used by various SmartStream applications.

For example, the following table describes how to display workflow and security-related column details.

Step	Action
1	Start the SmartStream Reference Tool.
2	Select the Table Column Detail Report Type.
3	Choose the pam, Activity Manager, application.
4	Choose the wact, Workflow & Security, table family.
5	Choose All Tables.
6	Select an Output Option, such as Print Preview to display the report on your screen.
7	Choose Run.

4 Distribution and Replication Services

Chapter Contents

4-1 Overview of the SmartStream Distributed Environment
4-6 Description of Tables in the Distribution Catalog
4-10 Updating the tsdx Table
4-13 Dislocating Tables
4-14 Physically Moving Data

Overview of the SmartStream Distributed Environment

The SmartStream distributed environment is an architecture and a set of services for running distributed applications. The distributed environment consists of the following components:

- The distributed architecture
- Distributed Platform services
- The SmartStream application architecture, which provides a common look and feel for all SmartStream applicationsThe desktop (SmartStream executable and desktop entities)

The Distributed Architecture

The distributed architecture defines how to design applications to operate properly in the SmartStream environment. The architecture organizes application data (implemented as tables) into table families and defines methods for distributing, replicating and accessing the data. The architecture also defines how business functions are defined and accessed.

Distributed Platform Services

SmartStream distributed services are delivered in the Distributed Platform. All SmartStream applications use the Distributed Platform services through a set of public interfaces that ensure consistent and correct behavior of the system. The interfaces are embedded within the application development environment for

interactive SmartStream Activity windows and are available as Application Programming Interfaces (APIs) to batch programs.

The Distributed Platform provides the following key features:

- The grouping of platform and application tables into table families.
- The Distribution Catalog, which acts as an address book that all SmartStream applications use to find the physical location of any table family
- An interface to the database vendor's replication service, which allows copies of table families to reside on different servers
- The Distributed Activity Manager, which enables steps in workflows to be properly created and routed in a distributed environment
- Distributed Database Services, including two-phase commit and Asynchronous Remote Procedure Call (ARPC), which guarantee transaction integrity in multi-server transactions
- SmartStream distributed administration

Replication Services

The SmartStream Distributed Platform provides replication services for the SmartStream Platform and SmartStream applications. SmartStream Replication Services allow you to maintain copies of your data on multiple servers. This allows users of SmartStream applications to access read-only copies of the data locally.

Replication is implemented by setting up both a primary server and one or several subscription servers.

Each SmartStream installation must contain a single primary server where you install and administer the SmartStream platform. The primary server contains the primary copy of the platform table families. The primary copy is the only copy you can write to. Most administrative tasks such as adding a new user, installing a new product, or changing a workflow definition require the availability of the primary server.

Subscription servers contain subscription copies of several platform table families. Subscription copies can be read from but not written to. You can assign individual users or workgroups to a subscription server. These users or workgroups can operate even when the primary server is unavailable.

A replication service provided by the database vendor keeps the subscription copies synchronized with the primary copies.

Note: The replication properties of tables are defined by the application developer and are not intended to be reconfigurable by the administrator.

Distributed and Replicated Table Families

The SmartStream Distributed Platform is implemented by defining the distribution and replication properties of each of its table families and modifying all routines which

access these families to properly locate and access the platform data. In addition, the Distributed Platform implements the distribution and replication services used by other SmartStream applications.

The platform table families can be divided into the following general categories:

- Replicated table families
- Distributed table families

Platform table families that are read extensively, but rarely change, are replicated. Other table families are distributed because the data contained in user desktops, To Do messages, and problem reports changes more frequently.

For example, the ctlg table family, which contains the distribution catalog, is replicated, while the wijt table family, which contains user desktop data, such as To Do lists, is distributed.

The following table lists the replicated and distributed table families in the SmartStream platform:

Replicated Table Families		Distributed Table Families	
ctlg	Distribution Catalog	wijt	User Desktop
lang	Language & Country Codes	arpc	Asynchronous RPC
mesm	Message Master	supt	Product Request
wact	Workflow & Security		
supc	Product SupportCommon		

Some table families, such as those used with SmartStream Connect and the Sample Application provided with SmartStream, are neither distributed nor replicated.

Other table families, such as the Structures Table Family (osst), are both distributed and replicated.

The Periodic Calendar, a common component used by SmartStream Financial and Human Resources, is replicated.

The Distributed Activity Manager

The Distributed Activity Manager enables steps in workflows to be properly routed in a distributed environment.

The Distributed Activity Manager is initiated when a user completes a step (such as saving and executing an Activity Window) and the application triggers one or more events. The Distributed Activity Manager performs the following key functions:

- Determines which, if any, steps to generate by evaluating the entry conditions associated with each step in the workflow

- Determines who to assign the next step in a workflow to by evaluating the assignment conditions associated with the step
- Creates a To Do message corresponding to the next step, and using Asynchronous RPC, routes the message to the proper user or workgroup
- Guarantees the eventual delivery of the To Do message despite any system failures.

The wijt and wact table families are key to the implementation of the Distributed Activity Manager. Wijt is distributed and contains user desktop data, such as To Do lists and activity lists. Wact is replicated and contains administrative data, such as security and workflow definitions and SmartStream meta data, such as column master.

Distributed Database Service

The Distributed Database Service provides the Asynchronous Remote Procedure Call (ARPC) and two-phase commit protocols used by application programs to read and update remote data. Both protocols are accessed through Application Programming Interfaces (APIs).

The ARPC interface lets an application update tables on a remote server. It is asynchronous because it does not depend on server availability at the time the request is made and does not block the execution of the requester. ARPC implementation relies on the two-phase commit protocol when processing a request.

The two-phase commit protocol is used to execute a transaction on tables that span two or more servers. It guarantees that the updates are all made correctly or that none are made and an error is returned to the calling program. All servers must be available in order for the two-phase commit transaction to complete.

ARPC is used for actions that are not time critical, whereas, two-phase commit is used when an immediate response is required.

Administration of the Distributed Environment

The SmartStream distributed environment includes a set of administration windows to perform various required functions in the distributed environment. These include:

Window	Used For
Table Family Distribution	Defining the environment on the Table Family Server Database Cross-Reference table (tsdx)
Replication Administration	Configuring or deconfiguring replication.
Subscription Server Administration	Setting up users and security groups on a subscription server
Move User/Workgroup	Moving a user or workgroup to another server
User Permissions	Taking SmartStream databases online and offline
Dislocated Table Distribution	Viewing dislocated tables

Description of Tables in the Distribution Catalog

This section describes the tables in the SmartStream Distribution Catalog (DBSctlg) database.

Table Family Master

The Table Family Master (tfam) defines each table family and whether or not it is distributed. The definition includes the number of distribution entities (0 if not distributed, 1 or 2 if distributed).

If the table family is horizontally distributed, this definition also includes the column ID or IDs (from the SmartStream Column Master table) that represents the distribution entity (or entities).

Table Family/Server/Database Cross-Reference

The Table Family/Server/Database Cross-Reference table (tsdx) serves as a directory of the instances of a table family. Here are two examples, one for a horizontally distributed table family and one for a replicated table family.

Horizontally Distributed Table Family

When a table family is distributed horizontally, the tsdx table contains entries for each distributed instance of the table family. The key to each tsdx entry is the table family ID and the distribution entity (or entities).

For example, the SmartStream Purchasing application's purchase order table family (pohm) is distributed by site. Assume you have multiple sites, but the only site where you desire local control of the data is Boston. The following table might represent the tsdx entries for distributing all Boston purchase orders on server 1 (srv1) and all other purchase orders on server 2 (srv2):

Note: *Server* must be the physical server name. This is because SmartStream client logic evaluates whether to use two-phase commit when updating table families on different servers by reading the server name on the tsdx table. If two different logical server names are on the tsdx table that point to the same physical server, two-phase commit will be invoked unnecessarily, which slows down database processing.

From Server	Table Family	Distribution Entity 1	Distribution Entity 2	Server	Database	Stored Procedure Owner
*	pohm	Boston	*	srv1	DBSpohm	dbo
*	pohm	*	*	srv2	DBSpohm	dbo

Note in the previous table that if an entry is not found on the tsdx table for distribution entity 1, then the default value of an asterisk (*) is used, as shown in the second row of the table.

Checking tsdx for Distribution Entity Values

The following table describes how a process sequentially checks the tsdx table for distribution entity values:

If...	Then the tsdx table is checked for...
A table family uses both levels of distribution	The existence of values in both distribution entity columns.
Values are not found in both distribution entity columns	A value in distribution entity 1 and an asterisk (*) in distribution entity 2.
A value is not found in distribution entity 1 and an asterisk (*) is in distribution entity 2	The default value (both distribution entity columns equal *).

The sequential order of processing described in the previous table illustrates the hierarchical nesting of distribution entity 2 within distribution entity 1.

Replicated Table Family

When a table family is replicated, the tsdx table contains entries for each replicated instance of a table family. The key to each tsdx entry for each replicated instance is the From Server ID and the table family ID.

For example, the SmartStream Workflow & Security table family (wact) is replicated to all SmartStream servers. Data may only be updated on the primary server, which is indicated with an asterisk in the From Server field. Activities that need a read-only copy of the wact table family search for a tsdx entry where the From Server field contains the name of the server where the activity is running.

The following table represents the tsdx entries for replicating the wact table family from the primary server (srv1) to the subscription servers (srv2 and srv3).

From Server	Table Family	Distribution Entity 1	Distribution Entity 2	Server	Database	Stored Procedure Owner
*	wact	*	*	srv1	DBSwact	dbo
srv2	wact	*	*	srv2	DBSwact	dbo
srv3	wact	*	*	srv3	DBSwact	dbo

Checking tsdx for Replicated Table Family Entries

The following table describes how a process sequentially checks the tsdx table for replicated table family entries:

If...	Then the tsdx table is checked for...
A table family is to be updated	An * in the From Server field, indicating the primary instance of the table family
A table family is to be read-only	A From Server value equal to the server where the activity is running
A table family is to be read-only and no match is found on the From Server	An * in the From Server field, indicating the primary instance of the table family

Table Master

The Table Master table (tblm) defines all tables and views that exist in SmartStream applications. Columns in this table include the

- Name of the table
- Table family each table belongs to
- Type (table or view)
- Application that the table belongs to.

Note: Although rare, a table family can be composed of tables from different applications.

Stored Procedure, Trigger, and View Tables

The stored procedure, trigger, and view tables identify stored procedures and triggers and cross-references them to the table or tables they reference.

These tables are particularly useful when distributing table families and their objects across servers. For example, given a table family, it is easy to identify all tables, views, stored procedures, and triggers that are part of the family.

These tables are used by the SmartStream Reference Tool, which allows you to display database information.

The following list identifies all of the tables in this category:

- Stored Procedure Table Cross-Reference (sptx)
- Stored Procedure Cross-Reference (spfx)
- Trigger Table Cross-Reference (trtx)
- Trigger Cross-Reference (trfx)
- View Table Cross-Reference (vwtx)

Application Users and Groups

The Application Users and Groups table (apus) associates security groups or users with the application or applications they use.

By associating the applications with a user or security group, the database administration process is able to identify the servers and databases that a user or security group needs access to. This identification is accomplished through a series of SQL table joins that access the tsdx table. (The tsdx table is described earlier in this chapter.)

This makes the job of your DBMS system administrator somewhat easier when it is necessary to create and drop server login IDs, add and drop database users, add and drop DBMS groups, or add a new server to the system.

Wij Servers

The Wij Servers table (wijt) is a repository of all servers where SmartStream is installed. All servers in this table are assigned a server number. This server number is then used in the calculation of new drawer or document numbers.

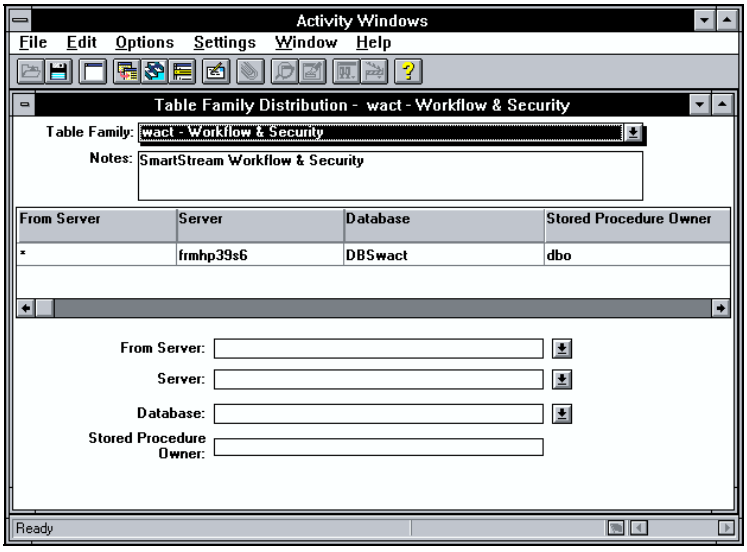
Updating the tsdx Table

This section discusses how to use the Table Family Distribution window to define your environment on the tsdx table.

Warning: Do not change any information on the tsdx table unless you are changing your physical environment (for example, moving table families to other databases or servers, or dislocating a table or tables from a database).

Furthermore, you should not change your physical environment after installation without consulting customer support. If you have plans to reconfigure the distribution of SmartStream databases or table families, contact SmartStream support first.

The Table Family Distribution window is illustrated as follows:



tsdx Definition

When you define your environment on the tsdx table using the Table Family Distribution window, several fields are already populated and you only need to select the appropriate value.

The following fields have drop-down lists from which you can select an appropriate value:

- Table Family
- From Server

- Server
- Database

Key Field

The key field on this window is Table Family. Once you select a table family, the From Server, servers, databases, distribution entities (if appropriate), and stored procedure owner display in the list area of the window.

Whenever a table family is moved after installation (for example, to a different server), you need to select a server and database where the table family resides in your environment. The Server field initially shows a default value of the server where the Distribution Catalogs installed. You can change this value if appropriate.

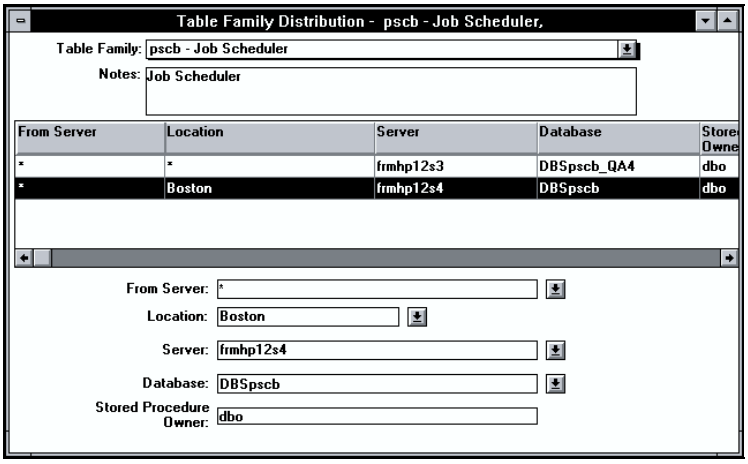
The Database field shows the name of the database where this table family is installed. You can change this value for performance or other reasons if you want.

The From Server field indicates whether the table family is a primary copy or subscription copy. An asterisk (*) indicates that the server name in the Server field contains the primary copy of the table family. A non-asterisk indicates that the server contains a subscription copy of the table family.

Note: The Stored Procedure Owner field is installed with the value **dbo** and should not be changed.

Distribution Entities

If the selected table family has an associated distribution entity (or entities), more than one entry might exist on the tsdx table for the table family. If so, the list area of the window displays multiple records. This scenario is illustrated in the following figure:



The default value for distribution entities is an asterisk (*). This value means that all records for all sites reside on the server/database you select.

The name of the distribution entity (Location) displays dynamically in a column in the list area of the window. Additionally, a field displays with a label that is the name of the distribution entity (Location).

To distribute this table family's data by the distribution entity, you need to enter the appropriate values for the distribution entity in the Distribution Entity field (Location). You can enter multiple distribution entity fields if more than one distribution entity is used.

Example

As shown in the previous window figure, the job scheduler table family (pscb) is distributed by location. You have multiple locations, but Boston is the only one where you want local control of the data. You type **Boston** in the Location field on the Table Family Distribution window.

tsdx Maintenance

If you need to reconfigure your environment for some reason (if you have installed a new server, or you want to switch a table family to another database for performance or other reasons, and so forth), select the appropriate table family in the Table Family field and redefine your environment.

If the selected table family is distributed, you need to select the record in the list area of the window where you want to perform maintenance. Once you do, the values for that record are displayed. You can then change them appropriately.

Note: When you change your environment as defined on the tsdx table, you need to physically move the appropriate records of data to the appropriate server, database, or both. Refer to Physically Moving Data for more information.

For More Information

For more information about using the Table Family Distribution window, refer to one of the following topics in the SmartStream Administrator's Help:

- Creating New Levels of Distribution
- Moving a Table Family to a Different Server and Database

Dislocating Tables

SmartStream supports a feature called dislocated tables to reduce contention for the transaction log in the database for a table family.

A dislocated table is physically located in a different database from the rest of the tables in a table family. This second database must be installed on the same server as the rest of the table family. All the stored procedures that reference a dislocated table include the name of the database where the dislocated table resides. The dis_tbl_db_xref_1 table, which is maintained by the Dislocated Tables Distribution window, contains this database name so that SmartStream features that use dynamic SQL can locate the dislocated table.

The installation procedures for applications that use dislocated tables will automatically

- Create the database for the dislocated table
- Create the stored procedures to reference the dislocated table
- Load the records into the dis_tbl_db_xref_1 table for the dislocated table.

To take full advantage of dislocated tables, you need four disks, as follows:

- Disk 1 for the database containing the table family
- Disk 2 for the transaction log for the database containing the table family
- Disk 3 for the database containing the dislocated table
- Disk 4 for the transaction log for the database containing the dislocated table

See the application-specific installation guides and the DBMS administrator's documentation for details on creating these databases.

Physically Moving Data

The process you use to physically move data depends on whether you are moving a database, a table, or a table family.

Moving a Database

To move a database to another server, use your DBMS Backup and Restore facility. Refer to your DBMS documentation for details on how to use Backup and Restore.

Moving a Table Family to a New Database

The steps described in the following table are only an outline of the steps necessary to move a table family to a database different from the one where it currently resides. They are not intended to serve as an exhaustive list of the procedural steps necessary to move a table family.

If you intend to move a table family, call SmartStream support first.

Step	Action
1	Unload the current data from the old database to a dump device (such as tape) using the DBMS **dump** command.
2	Create the new database using the DBMS **create database** command. The new database should be at least as large as the old one.
3	Load the data from the dump in Step 1 into the new database using the DBMS **restore** command.
4	If the database is on a different server, ensure the IP address of the server exists in the SQL.INI file on each client machine that accesses the server.
5	Update the tsdx table using the Table Family Distribution window to reflect the change.

Moving a Table Family to a New Server

The steps described in the following table are only an outline of the steps necessary to move a table family to a new server. They are not intended to serve as a complete list of the procedural steps necessary to move a table family.

If you intend to move a table family to a new server, call SmartStream support first.

Step	Action
1	Install a subscription copy of SmartStream on the new server and setup replication. See Setting Up a Distributed Environment for details.
2	Add the logical server names of the existing servers to the DBMS interfaces file on the new server.

Step	Action
3	Physically move the data to the new devices.
4	Update the tsdx table with the configuration using the Table Family Distribution window.
5	Add the IP address of the new server to SQL.INI file on all client machines that access the new server.
6	Add user DBMS logon IDs for the new servers using the Identifying Servers and Databases and Subscription Server Administration windows.

5 Mail Agents and Document Enablement

Chapter Contents

5-1 SmartStream Mail
5-5 Agents
5-9 Document Enablement

SmartStream Mail

SmartStream users can send and receive mail through an interface to their native mail systems. Through the use of a profile in the Microsoft Messaging System, SmartStream supports mail systems that are compliant with the Microsoft Messaging Application Programming Interface (MAPI) only.

SmartStream users can receive mail notification of the tasks that are assigned to them. Refer to Mail-Enabled To Do's for further information.

For more information about the supported versions of these systems, visit the AnswerLink Bulletin Board. Under SmartStream, Release Information, and the number of the appropriate release, review the Supported Technical Environments topic.

How Mail is Sent from SmartStream Clients

The following table describes the process of how mail is sent from the SmartStream client to any user of the mail system:

Stage	Description
1	SmartStream logs on to the native mail system by calling sstMailLogon in PMAIL32.DLL.
2	sstMailSendDialog calls a dialog provided by the native mail system to allow the user to compose and address a mail message.
3	sstMailSendDialog sends the mail to the post office, which delivers it to the intended recipient.
4	The recipient uses the native mail system to read the new mail.

The SmartStream Mail Gateway

The SmartStream Mail Gateway is responsible for mailing workflow steps and informational To Do messages to SmartStream users who have been enabled for Workflow To Do mailing.

The SmartStream Mail Gateway is also designed to process messages from SmartStream products, such as the Master Scheduler, and send them via electronic mail to a list of recipients. These recipients can be anyone defined in the native mail system post office.

The following sections describe how these tasks are performed under Windows, Windows NT, and UNIX operating systems.

Windows and Windows NT Operating Systems

The following table shows how SmartStream products process mail under Windows and Windows NT operating systems:

Stage	Process
1	The SmartStream product stores the message recipients and text in memory.
2	A file is constructed to pass to the Mail Gateway that represents a Mail message.
3	The SmartStream product copies the mail message to the shared LAN directory where the Mail Gateway program is running.
4	The Mail Gateway reads the files, constructs a mail message, and sends the message to the intended recipients through the native mail system.

UNIX Operating System

The following table shows how SmartStream products process mail under a UNIX operating system:

Stage	Process
1	The SmartStream product stores the message recipients and text in memory.
2	A file is constructed to pass to the Mail Gateway that represents a Mail message.
3	An FTP connection is made to the Mail Gateway machine. This message file is transferred to the Mail Gateway.
4	The Mail Gateway reads the files, constructs a mail message, and sends the message to the intended recipients through the native mail system.

Note: If an error occurs during the function call and the mail is not delivered, a message is sent to the administrator and to the calling program.

Implementing Mail Gateway Passwords

Lan Workplace's SERVEFTP.EXE lets you implement password protection for connecting to the Mail Gateway. To implement this, select user IDs and passwords that already exist in the Master Scheduler configuration window.

Mail Gateway Error Conditions

If the Mail Gateway program is not running, either the sender is notified of errors, or the mail is delivered the next time the Mail Gateway is started.

Mail Gateway Using FTP

The SmartStream product returns an error notifying the sender of the error condition. The sender will log an error using system error facilities.

Mail Gateway Without FTP

The message is copied to the appropriate mail directory. When the Mail Gateway program is running again, it delivers the waiting messages.

If the Mail Gateway cannot deliver the message to the intended recipients, the message is saved and an attempt is made to send it during the next mail interval, or it is sent to the mail administrator.

Trouble Logging on to Mail Gateway

The desktop server entry on the DBS.INI file must correspond to the server entry on the DBSERVER.INI file. If your DBSERVER.INI file is pointing to a server that is not running or does not exist you cannot log on to the Mail Gateway.

The log on window gives you three opportunities to enter the correct server information and choose OK. After three incorrect entries, the log on window dismisses and an error is written to the MAILGATE.LOG file.

Sending WorkFlow To Do Messages

The Mail Gateway executes the following procedure to send Informational To Do messages and Next Step messages to SmartStream users.

Stage	Process
1	The SmartStream workflow engine stores the To Do message to be sent in the mail_message table. The Mail Gateway scans the mail_message table (a distributed table in the wijt family).
2	For each row found in the table, a To Do message (optionally with a Next Step attachment) file is assembled at the Mail Gateway machine.
3	The message is sent via the native mail system to the SmartStream user specified in the mail_message table.
4	When the message arrives, the user can read the Informational To Do message, or click on the attachment (if present) to launch SmartStream and go directly to their Task List.

Agents

An agent is a semiautonomous process that enables you to organize your work. Agents act as electronic assistants, performing repetitive tasks on your behalf. The following list shows the tasks that agents can perform:

- Processing your incoming mail
- Processing To Do tasks:
  - Reassign a Workgroup To Do task to a member of the group
  - Return a previously assigned To Do task back to a Workgroup
  - Set Priority (change from High, Medium, or Low)
  - Move to another To Do folder
  - Delete To Do tasks that are processed or unprocessed
- Running applications or stored procedures
- Creating and distributing reports

Agents are Browser objects containing one or more user-defined rules you establish with the Rule Editor. Each agent acts on the contents of the Agent Works on ... List that you specify when you create the rules.

When you establish an agent, the rules you define contain conditions and actions. The agent acts automatically when the specified conditions are met. Once you set the agent to make decisions and then run it, you do not need to perform any other actions.

You can schedule agents to run at any time (at specific times, on events, biweekly, daily, monthly, for one day, quarterly, weekly, and so forth) with specific start and stop times or to run at specific intervals (for example, every 30 minutes).

User/Agent Interaction

The agent is responsible for carrying out the work that you specify. Use agents to create and distribute SmartStream Analysis reports and reassign To Do tasks.

An example of an agent is one that is programmed to reassign a user's tasks back to the Workgroup after the user leaves the company.

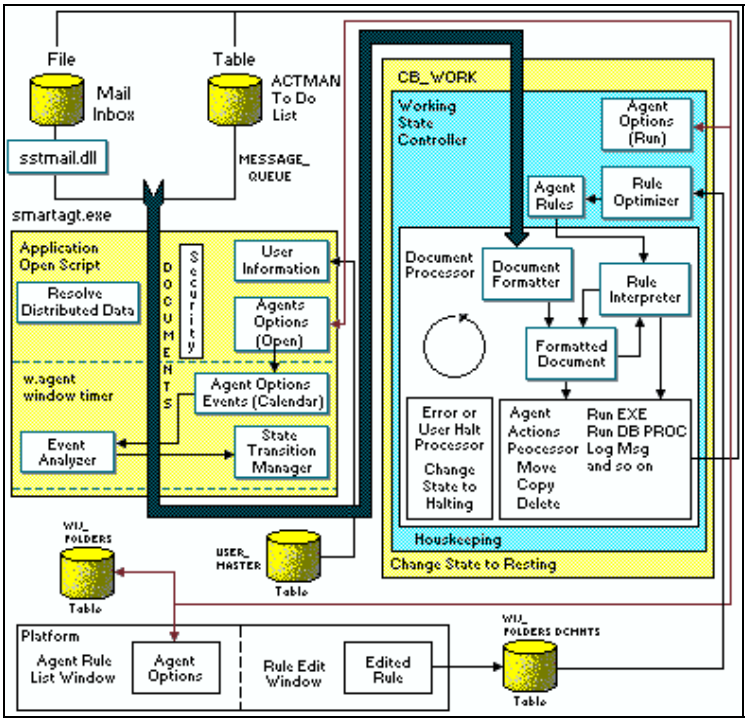
The following table describes the agent process:

Stage	Process
1	Choose an agent from the Browser.
2	Run the agent from the SmartStream toolbar or by choosing Run Agent from the Agents menu.

Stage	Process
3	The Agent window displays. This window contains the agent name, schedule information, current status details, an execution log, and Activate Agent, Start Work Now, and Inactivate Agent buttons.
4	When you choose Start Work Now, the agent is run immediately, and begins working, (regardless of its next scheduled time). After the agent completes this initial work interval, it returns to its schedule.
5	The agent begins to evaluate the schedule in order to determine whether it should begin work. When the schedule conditions are satisfied, the agent begins working.
6	The agent rules are read and the Agent Works on ... List is accessed. The rules are applied to the first document in the Agent Works on ... List. The agent reads a document from the Agent Works on ... List and applies all rules to the document. Rules are applied in the order they appear in the Rule Editor. Stages 6 and 7 repeat until all documents in the Agent Works on ... List have been processed.
7	The agent stops working and goes into a resting state until the next scheduled work time.

Internal Processes

The following graphic illustrates the internal processes which occur when an agent is run. The text that follows is meant to help describe the processes detailed in that graphic.



How Agents Are Stored

Agents are stored as a series of documents, where each agent rule is defined as a single document stored on the WIJ_FOLDERDCMTS table. (Rules are created in SmartStream using the Rule List and Rule Editor Windows.)

The agent name, the name and location of the Agent Works on List, and other options are stored in a column called Agent_settings on the WIJ_FOLDERS table.

When the Agent is First Started

Agent options are read from the WIJ_FOLDERS table when the Agent is first started, and again every time the agent enters the working state.

Agent States

An agent can be in one of four possible states:

State	Description
Inactive	The agent has been executed, but has not started scanning for events.
Resting	Agent has been executed and is waiting for an event to occur and put the agent into a working state.
Working	The agent is processing the Agent Works On List (Mail System Inbox and To Do lists), one document at a time. When the list is completed, the agent returns to the resting state.
Halting	Under certain conditions, an agent in the Working state will go directly to the Inactive state. The conditions include: ■ Event conditions (such as database connection failures, etc.) ■ User intervention (the user chooses Inactivate Agent) Agent actions (the agent issues the Deactivate action.)

What Kind of Data Agents Work On

The data that agents work on are Mail documents and To Do lists.

When the Agent Is First Loaded

When ssagt32.exe (the agent executable) is loaded, it first resolves and initializes the following within the SmartStream architecture:

- Resolves any distributed data issues (that is, find the server location of the WACT table family)
- Validates the user
- Sets agent options and defaults
- Initializes global variables
- Validates user access rights to the Agent Works on List.

Agent Processing

Whenever the Agent transitions from the resting state to the working state the Agent options are checked and the Agent's rules are read from the WIJ_FOLDERDCMTS table in the order they are to be executed. The working Agent then processes each document in the Works On ... List until the list is exhausted. After each document is

read each rule is applied to the document. Whenever the applied rule evaluates to true, the specified actions are executed. After a document is processed, a check is made to see if it has been marked for deletion.

All message deletions are deferred until all rules have been applied. After all the documents in the Works On... List have been processed the Agent deletes any attachments that it may have loaded into windows temp directory, determines if any errors have occurred, logs the results, and finally transitions the Agent back to the resting state ready for the next event occurrence.

How Agent Options Are Set

The main window of an Agent - the SmartStream Agent window is always open (although it may be minimized) and displays the details about the event the agent is sensitive to, and the current time and status of the agent. The window contains a button which brings up a window to set scheduled events (the current version of agents is only sensitive to scheduled calendar events), and a button to set agents options. Finally, the window contains three (3) pushbutton controls (Activate Agent, Start Work Now, Inactivate Agent) that allow the Client (human) to manually control an Agent. It is the script of the Timer event of this window which scans for event occurrences and manages the Agent's state transitions.

Troubleshooting Agents

Column Code Values Window

Agents cannot evaluate items in a To Do List based on values derived from the Column Code Values window. Column Code Values show values of Yes or No for actual values of 1 and 0. If you code an agent to evaluate this field, use 1 or 0 as a test value.

Trigger Event Action Command

When adding or editing a rule in Agents and you set the Action command to Trigger Event, you can click on the parameters Paster button to display the Trigger Event dialog box. The Owner Assign To option does not work in this dialog. You must always set the Assign To option to Default.

Document Enablement

Document enablement allows users to access documents stored in the network file system and external document management systems and attach them to SmartStream activities. Document enablement uses OLE automation technology as a general mechanism to access document management systems.

SmartStream developers must explicitly turn on document enablement in any activity in which it is to be used. Document enablement is activated in some Sample Application windows and key windows in SmartStream Human Resources and Financials applications. With document enablement, users may associate a scanned resume image with a personnel record or backup spreadsheets with requisitions. Once the association is established, the linked documents may be carried through a workflow from one activity to another.

The linked documents are never stored in the underlying SmartStream database. Instead, SmartStream associates links to these documents with instances of activities and stores the links in the database. Users activate these links to interact with the document management systems and use the tools provided to view and edit the documents. Security is enforced by the document management system, or, in the case of file network attachments, by SmartStream.

SmartStream application architecture is extended to allow every activity to enable document attachments in a consistent way. This is accomplished through an Attachments option on the SmartStream toolbar and File menu. The Attachments option lets users attach documents to a record in an activity window.

The doc_attachment Table

For each attachment, a row is written to the SmartStream doc_attachment table. Each row keeps pointer information about where the actual document is stored.

The doc_attachment table has two keys:

- table_id
- activity_key

The **table_id** is the unique key that the SmartStream application architecture uses to identify a table. Similarly, the **activity_key** identifies each SmartStream activity, including user-defined activities created with SmartStream Builder. When an activity is deleted from SmartStream, the application architecture automatically deletes the row in the doc_attachment table.

Security

Security is provided by both SmartStream and the document management system. SmartStream provides security at the activity-level. If the user can read that activity, the document can be displayed. If the user has any greater security level, the user can delete an attachment to a document, but not necessarily the actual document.

The user must use the document management system to add or delete actual documents and must have the proper security level.

The administrator uses the DBSERVER.INI file to determine:

- Whether document enablement is supported
- The list of document management systems that may be used
- The restrictions placed on the use of the network file system. For example, the administrator can
  - Allow access to all available file systems
  - Restrict access to only specified network file systems
  - Allow no file system access.

For more information on the INI file settings, refer to SmartStream Initialization Files.

Setting up Document Enablement

To set up document enablement, you must complete the following tasks:

- If you are using the Panagon integrated document management system from FileNET, ensure that it is installed and registered in the Windows registry for each user. Also, remove the leading semicolon (;) on the Provider2 line in DBSERVER.INI.
- Enable document attachments on selected activity windows.

Display a record on any activity window where the document attachment function is enabled. Then, use either the Attachments option on the File menu or the Attachments toolbar button to open the Document Attachments dialog box.

6 Entity Validation

Chapter Contents

6-1 Overview of Entity Validation
6-2 Entity-Related Windows and Fields
6-3 Column Validation Table
6-4 Entity Validation Process
6-6 Security Entity Validation
6-9 Distribution Entity Validation
6-11 Step Entity Validation

Overview of Entity Validation

SmartStream and its related business streams use the concept of entities in the following areas of the system:

- Security
- Distribution Catalog
- Workflow

An entity essentially defines a cross-section of data. These cross-sections can be defined at two levels in the case of security and distribution entities. Next Step (workflow) entities are defined at one level. The use of entities is predefined by SmartStream business streams. They are not user-defined. The actual values of these entities are defined by your enterprise.

For example, SmartStream Supplies Management uses a security entity 1 of **site**. In some functional areas of Supplies Management, a security entity 2 of **stockroom** is also used. The values for site (and stockroom, if applicable) are user defined. For example, if your enterprise has sites in Boston and Chicago, Boston and Chicago would be your enterprise's values for the security entity of site.

For more information on entities, refer to Securing Activities.

For more information on distribution entities, refer to Description of Tables in the Distribution Catalog.

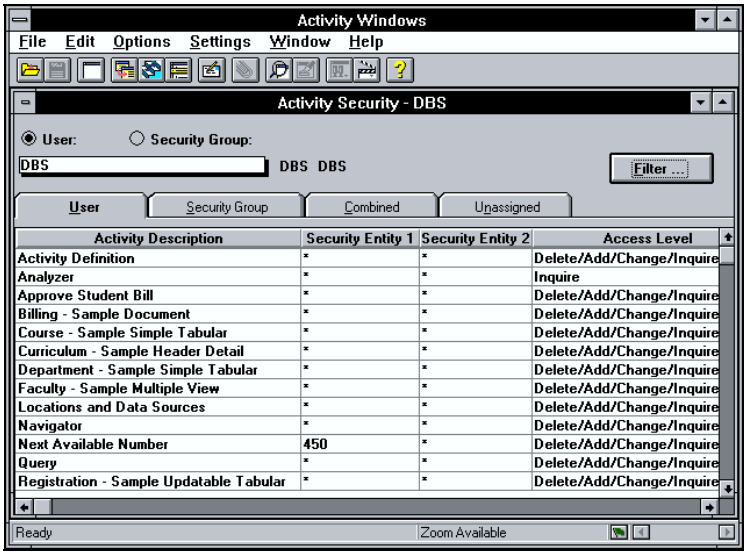
Entity-Related Windows and Fields

This section describes how list box fields that contain entity values are populated, and how entity values are validated when a user enters a new entity value or selects an entity value from a list.

The following table lists the different entity types, the activity window that the list box field displays on, and the list box field or fields where entities values are populated and validated.

Entity Type	Activity Window	List Box Field or Fields
Security	Activity Security	Security Entity 1 and Security Entity 2 (see Note)
Distribution	Table Family Distribution	Distribution Entity 1 and Distribution Entity 2 (see Note)

Note: The list box field label changes dynamically based on the entity. For example, when a user first accesses this window, the security entity labels display as Security Value 1 and Security Value 2, as illustrated in the following figure:



Column Validation Table

The entity validation process relies on the Column Validation table to establish where a particular table family resides and which stored procedure to execute in order to perform list box population or entity value validation.

The layout of the Column Validation table is illustrated in the following table:

Column Name	Part of Composite Key?
Activity	Yes
Validation Entity	Yes
Column ID	Yes
Table Family ID	
Validation Procedure	
Item Browse	
List Procedure	
Validation Message ID	

Some common values for the Activity column are described in the following table:

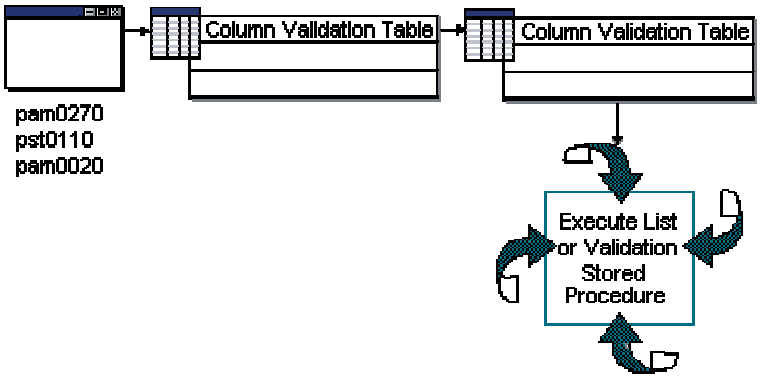
If the activity is...	Then the validation entity is...
pst0110	* (the default value)
pam0020	* (the default value)
pam0270	* (the default value), or the activity selected in the list area.

Column ID is the ID of the column (as defined on the Column Master table) used as the entity. For example, in SmartStream Supplies Management, security entity 1 is **site**. The ID for site on the Column Master table is 650. Therefore, in the previous figure, 650 is the value for Column ID.

Entity Validation Process

This section provides an overview of how entity values are populated into list box fields and how new entity values are validated. Subsequent sections describe how each specific type of entity value (security, distribution, and step) is populated and validated.

The following figure illustrates the entity validation process. The table following the figure provides further detail about the process shown in the figure.



Stage	Description
1	A user accesses an activity that contains an entity-related list box. These activities and their related functions are as follows: **Activity** — **Function** Activity Security (pam0270) — Security Table Family Distribution (pst0110) — Distribution Catalog Workflow Workbench (pam0220) — Workflow
2	Based on the activity selected, the Column Validation table is read for the key values.
3	Using the Table Family ID from the Column Validation table, the Table Family/Server/ Database Cross-Reference table (tsdx) is read to find the location (server, database, database owner) of the table family for the specific key values.
4	Using the location (server, database, database owner) information from Stage 3, the appropriate stored procedure for the key values (List Procedure to populate a list box, Validation Procedure to validate a new value) is executed against the table family. (Refer to the following Note.)

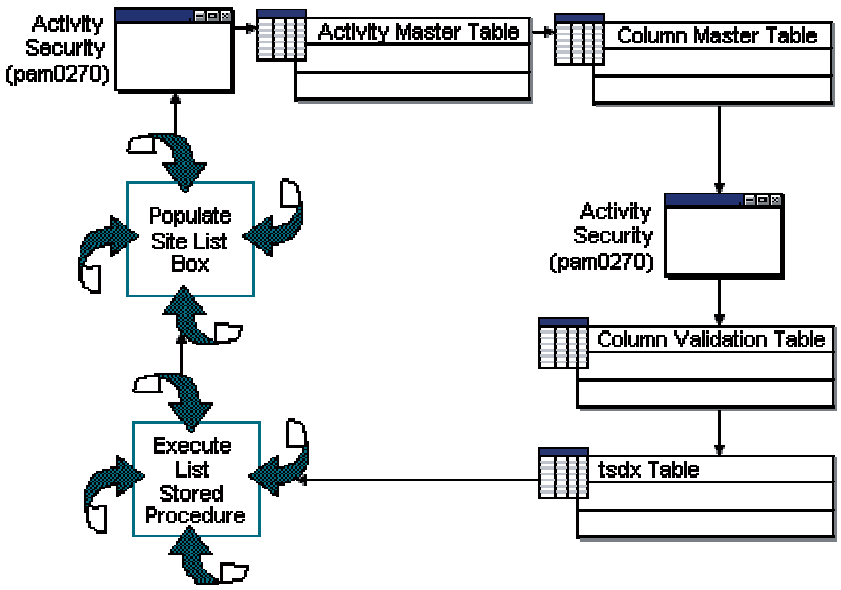
Note: If the table family is distributed across multiple servers, the List or Validation stored procedure (whichever is appropriate) is executed on the appropriate instance of server, database, and database owner found on the tsdx table for the specific value of the distribution entity.

For more information on the tsdx table, refer to Description of Tables in the Distribution Catalog.

Security Entity Validation

Security entity list box fields appear on the Activity Security window. When an activity that uses a security entity or entities is selected, the security entity list box fields are populated with the appropriate values.

The following figure illustrates the process that populates the security entity list box fields. The table that follows the figure provides further detail about the process shown in the figure.



The example used in the following table assumes that the user has chosen the mbm0330 (Site Planning Profile) activity in the list area on the Activity Security window. This activity has a security entity 1 of site (Column ID 650).

Stage	Description
1	A user selects the mbm0330 activity on the Activity Security window.
2	The Activity Master table is read for the mbm0330 activity to determine if there are levels of security defined for this activity and if so, what the Column ID of the entity is. For the mbm0330 activity, there is one level of security and the security entity is site (Column ID 650).
3	The Column Master table is read to determine the label and length for column ID 650. This read returns a label of Site and a length of 40 characters.
4	Using the label and length information from Stage 3, the Security Entity 1 field on the Activity Security window is dynamically formatted.

Stage	Description
5	The Column Validation table is read using key values of pam0270 for Activity, mmr0705 (Open Work Order) for Validation Entity, and 650 for Column ID. A value for Table Family (pplm) and List Procedure (msp_sel_plmm_enterprise) for this key is accessed from this read.
6	Using the Table Family ID of pplm from Stage 5, the Table Family/Server/Database Cross-Reference table (tsdx) is read to find the location or locations (server, database, database owner) of the table family.
7	Using the server, database, database owner value (or values) in Stage 6, the List Procedure msp_sel_plmm_enterprise is executed against table family pplm.
8	The Site list box is populated with the answer set returned from Stage 7.

Validation

If a new value for site was being validated (as opposed to populating the list box for site as described in the previous table), the process would be the same, except that the value for Validation Procedure (not List Procedure) would be read in Stage 5. This procedure would then be executed in Stage 7.

Two Levels of Security

If the mbm0330 activity had two levels of security (two security entities), stages 2 through 8 would be repeated for Security Entity 2.

Nesting of Security Entity 2 Within Security Entity 1

When a table family is distributed (a distribution entity [or entities] is defined for the table family) and there are two security entities for an activity associated with that table family, Security Entity 2 is nested within Security Entity 1.

When this occurs, only Security Entity 2 values that are valid for the selected Security Entity 1 are populated in the Security Entity 2 list box.

For example, assume the following conditions apply:

- Activity mbm0330 from the discussion in the previous table has a security entity 2 of Stockroom (in addition to a security entity 1 of Site).
- Site is also distribution entity 1 for the pplm table family.
- You have sites of Boston, Atlanta, and Chicago.
- A user selects site Boston from the Site list box on the Activity Security window
- Site Boston has two stockrooms, East and West.

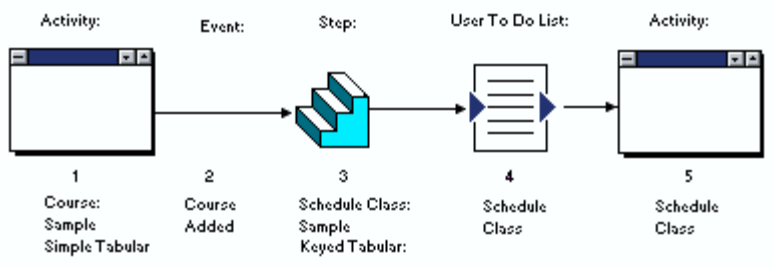
Note: Activity mbm0330 does not actually contain a security entity of Stockroom.

For more information about activity security, refer to Securing Activities and Assigning Activity Security to Security Groups and Users.

Before Stage 6 on the previous table, the Table Family Master table is read to check for distribution entities for the pplm table family. In this example, a distribution entity 1 of site is found, which equals security entity 1.

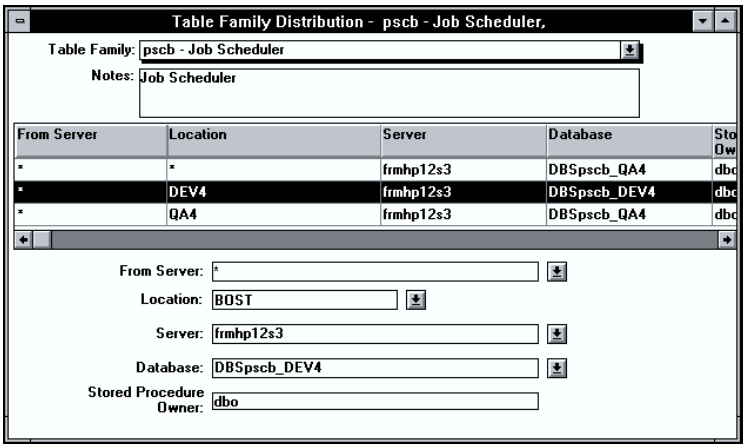
Using the pplm value for table family and a value of Boston for distribution entity 1, the tsdx table is read for the appropriate server, database, and database owner. The List Procedure is then executed only on the Boston server and therefore, the Stockroom (security entity 2) list box is populated with East and West (as opposed to all stockrooms for all sites).

This situation is illustrated in the following figure:



Distribution Entity Validation

The distribution entity list box fields appear on the Table Family Distribution window. This window is illustrated in the following figure:



When a table family that uses a distribution entity or entities is selected on this window, the distribution entity list box fields are formatted and populated with the appropriate values.

The following table provides further detail about the process that populates the distribution entity list box fields.

The example used in the following table assumes that the user has chosen the pscb (Job Scheduler) table family in the Table Family drop-down list field on the Table Family Distribution window. This table family uses a distribution entity 1 of location (Column ID 14326).

Stage	Description
1	A user selects the pscb table family on the Table Family Distribution window.
2	The Table Family Master table is read for the pscb table family to determine if there are levels of distribution defined for this table family, and if so, what the Column ID of the entity is. For the pscb table family, there is one level of distribution and the distribution entity is location (Column ID 14326).
3	The Column Master table is read to determine the label and length for column ID 14326. This read returns a label of Location and a length of 40 characters.
4	Using the label and length information from Step 3, the Distribution Entity 1 field on the Table Family Distribution window is dynamically formatted.

Stage	Description
5	The Column Validation table is read using key values of pst0110 for Activity, * for Validation Entity, and 14326 for Column ID. A value for Table Family (pscb) for this key is accessed from this read.
6	Using the Table Family ID of pscb from Stage 5, the Table Family/Server/Database Cross-Reference table (tsdx) is read to find the location or locations (server, database, database owner) of the table family.
7	Using the server, database, and database owner value (or values) in Stage 6, the List Procedure is executed against table family pplm.
8	The Location list box is populated with the answer set returned from Stage 7.

Step Entity Validation

Step entities are displayed on the Assignment Tree of the Assignment tab.

The following table describes the process that populates the Assignment Tree. The example used in this table assumes that the user has an assignment that includes the psascheins event (Class Scheduled - Register Students) on the Workflow Workbench Assignment tab. This event uses a Step entity of Campus (Column ID 13329).

Stage	Description
1	A user selects an assignment on the Assignment Tree that includes the psascheins event.
2	The Event Master table is read for the psascheins event to determine if there is a Step entity defined for this event and if so, what the Column ID of the entity is. For the psascheins event, there is a Step entity of campus (Column ID 13329).
3	The Column Master table is read to determine the label and length for column ID 13329. This read returns a label of Location and a length of 40 characters.
4	Using the label and length information from Stage 3, the Step entity field is dynamically formatted when the user selects an entity on the Assignment Tree and chooses New..
5	The Column Validation table is read using key values of * for Activity, * for Validation Entity, and 13329 for Column ID. A value for Table Family (wsa2) for this key is accessed from this read.
6	Using the Table Family ID of wsat from Stage 5, the Table Family/Server/Database Cross-Reference table (tsdx) is read to find the location or locations (server, database, database owner) of the table family.
7	Using the server, database, and database owner value (or values) in Stage 6, the List Procedure is executed against table family wsa2.
8	The Add Entity dialog box is populated with the answer set returned from Stage 7.

7 Asynchronous RPC Facility

Chapter Contents

7-2 Understanding the Asynchronous RPC Facility
7-4 Asynchronous RPC Facility Instance

Understanding the Asynchronous RPC Facility

The Asynchronous RPC facility allows a DBMS transaction to be queued for execution on a target server. The facility allows a SmartStream application to

- Issue multiple Asynchronous RPC requests as one transaction.
- Issue a single Asynchronous RPC request and a local stored procedure as a single transaction.
- Reliably queue updates to data on a server even if it is down.

The following table describes how the Asynchronous RPC facility works.

Stage	Description
1	A SmartStream application issues an Asynchronous RPC request for executing a transaction on a target server. The request contains the target server name, the database name, the stored procedure name, and as many as 64 parameters.
2	The Asynchronous RPC facility inserts the request with the key into the Asynchronous RPC Request table.
3	The Asynchronous RPC Master Server program recognizes the target request in the table and starts the specific Asynchronous RPC Remote Processing program designated with executing requests for that particular target server. The processing program processes the request in the order issued.
4	The Asynchronous RPC Remote Processing program uses two-phase commit logic to execute the request on the target server and delete the request from the request table.

Processing an Asynchronous RPC request on a Local Server

The following table describes how the Asynchronous RPC facility processes an Asynchronous RPC (ARPC) when the target server is the local server (the server where the ARPC Master Server program resides):

Stage	Description
1	In a single transaction, the calling application updates a database on the local server and issues an Asynchronous RPC request.
2	The Asynchronous RPC Master Program wakes and sees the request.
3	In a single transaction, the Asynchronous RPC Master Program executes the requested stored procedure and deletes the request.

Processing an Asynchronous RPC request on a Remote Server

The following table describes how the Asynchronous RPC facility processes an Asynchronous RPC request when the target server is a remote server:

Stage	Description
1	In a single transaction, the calling application updates a database on the local server and issues an Asynchronous RPC request.
2	The Asynchronous RPC Master program wakes and sees the request.
3	The Asynchronous RPC Master program starts an instance of the Asynchronous RPC Remote Processing program.
4	The Asynchronous RPC Remote Processing program reads remote configuration parameters on the ARPC Configuration table.
5	The Asynchronous RPC Remote Processing program reads the request.
6	The Asynchronous RPC Remote Processing program executes the requested stored procedure and deletes the request using a single two-phase commit transaction.

Asynchronous RPC Facility Instance

An instance of the Asynchronous RPC facility must be configured on every server in the system.

- An instance of the Asynchronous RPC family of DBMS tables
- The Asynchronous RPC Master Server program
- Multiple instances of the Asynchronous RPC Remote Processing program (one for each target server). These programs are automatically started by the Master Server program as needed.

Note: The SmartStream and product installation procedures automatically install an instance of the Asynchronous RPC table family on every server in the system.

Overview of the Asynchronous RPC Master Server Program

The Asynchronous RPC Master Server program executes Asynchronous RPC requests on the local server and updates the Asynchronous RPC tables. It also initiates and monitors each instance of the Asynchronous RPC Remote Processing program to ensure that an instance of the program is running for every target server that has pending requests. (The Asynchronous RPC Remote Processing program executes requests on target servers.)

To run ARPC in a single server environment, the following files must be located in the master ARPC directory:

- pscc0050.exe
- pscc0051.exe

This table describes Asynchronous RPC Master Server program processing:

Stage	Description
1	Reads configuration information from the Asynchronous RPC Configuration table and from the DBSCHED.INI file (ARPC server, DBMS server, database, user ID, and password).
2	Starts an Asynchronous RPC Remote Processing program for each request to a target server that does not already have an Asynchronous RPC Remote Processing program running.
3	Runs all local Asynchronous RPC requests and updates the Asynchronous RPC request table.
4	Sleeps for the Polling time specified in the Asynchronous RPC Configuration table after all requests have been processed.

8 UNIX Shell Scripts

Chapter Contents

8-1 UNIX Shell Scripts
8-2 pscsched.beg
8-4 pscpoll.beg
8-6 pscarpc.beg

UNIX Shell Scripts

The following sections provide the text of the UNIX shell scripts delivered with SmartStream that you can use to start and stop the Master Scheduler (pscc0010), Poll (pscc0020), and Master Server (pscc0050) programs.

Review and edit these scripts for use in your production environment. They cannot be used as installed. At a minimum, you must remove the Exit.

The following list provides the name and purpose of each script:

- pscsched.beg - starts the Master Scheduler program
- pscpoll.beg - starts the Poll program
- pscarpc.beg - starts the Master Server program.

Each .beg script contains code that generates a script to end the process (Master Scheduler, Poll, or Master Server). These kill scripts are automatically named pscsched.kil pscpoll.kil, and pscarpc.kil, respectively.

pscsched.beg

The following script starts the Master Scheduler program and generates a kill script named pscsched.kil:

```
#!/bin/sh

# Master Scheduler Run Script
# Copyright (c) 1993-2000 Geac Enterprise Solutions,Inc.
# All Rights Reserved
# Author: Geac SmartStream
#
# 3/29/94
#
# Modify this script prior to running it, as it is
installed it is not # usable!!!
#
#echo
#echo  Modify this script before running it.
#echo
      exit
#
# Purpose : To initiate the Master Scheduler (pscc0010) in
the background, and impervious to hang-up signals.

 #
# The output (if any) will be sent to mastsched.log and
errors are sent to mastsched.err.  Both files should be
checked when there is a problem.
#
# The PID (process ID) of the scheduler is saved and a kill
script is # created in the current directory for an easy
way to kill this instance ofthe scheduler.

#           Environment Variables

# DBSLANG = language code and dialect code.  This affects
the language of # the messages send to the system
administrator. EN = english (with no dialect)
DBSLANG=EN;
export DBSLANG;

# DBSDEBS, a value of 1 means put diagnostic information to
the screen
DBSDEBS=1;
export DBSDEBS;

# DBSDEBF, a value of 1 means put the debug information
into a file
DBSDEBF=1;
```

```
export DBSDEBF;

# DBSDEBL is the diagnostic level for the master scheduler.
#0 : no screen output
#1 : displays initial data, log messages, mail text and bad
queries.
#2 : displays additional messages.
#3 : reports every interaction through the main loop
DBSDEBL=1;
export DBSDEBL;

# Start it, with nohup so it won't exit when the terminal
session ends and  redirect the stdout and stderr to files

      nohup pscc0010 >mastsched.log 2>mastsched.err &
#

# Build a script to kill this instance

echo Use the pscsched.kil command to kill this instance.
echo "#Script to kill instance of master scheduler" >
pscsched.kil
echo "echo Searching for the Master Scheduler with PID
$!">>pscsched.kil
echo "echo">>pscsched.kil
echo "ps -p $! | grep pscc0020 > /dev/null">>pscsched.kil
echo "if [ \$? -ne 0 ] ">>pscsched.kil
echo "then echo PID $! is not the process id for the Master
Scheduler.  The">>pscsched.kil
echo "echo Master Scheduler started when this script was
created">>pscsched.kil

echo "echo has since terminated.  If the Master Scheduler
is currently">>pscsched.kil
echo "echo running, you should refer to the SmartStream
Guide to">>pscsched.kil
echo "echo Server Services manual for instructions on
stopping">>pscsched.kil
echo "echo the Master Scheduler from the command
line.">>pscsched.kil
echo "else echo Stopping the Master Scheduler
now.">>pscsched.kil
echo "kill $! ">>pscsched.kil
echo "fi;rm pscsched.kil">>pscsched.kil

# Make sure it's executable
            chmod +x pscsched.kil
            continue
echo
```

pscpoll.beg

The following script starts the Poll program and generates a kill script named pscpoll.kil:

```
#!/bin/sh

# Poll Run Script
# Copyright (c) 1993-2000 Geac Enterprise Solutions,Inc.
# All Rights Reserved
# Author: Geac SmartStream
#
# 3/29/94
#
# Modify this script prior to running it, as it is
installed it is not  usable!!!
#
#echo
#echo  Modify this script before running it.
#echo
      exit
#
# Purpose : To initiate the Poll program (pscc0020) in the
background, and impervious to hang-up signals.
#
# The output (if any) will be sent to poll.log and errors
are sent
# to poll.err.  Both files should be checked when there is
a problem.
#
# The PID (process ID) of the Poll program is saved and a
kill script is
# created in the current directory for an easy way to kill
this instance of
# the Poll program.

#
#           Environment Variables
# DBSLANG = language code and dialect code.  This affects
the language of the messages send to the system
administrator. EN = english (with no dialect)

DBSLANG=EN;
export DBSLANG;

# DBSDEBS, a value of 1 means put diagnostic information to
the screen
DBSDEBS=1;
```

```
export DBSDEBS;

# DBSDEBF, a value of 1 means put the debug information
into a file
DBSDEBF=1;
export DBSDEBF;

# Start it, with nohup so it won't exit when the terminal
session ends and redirect the stdout and stderr to files
            nohup pscc0020 >poll.log 2>poll.err &


#
# Build a script to kill this instance

echo Use the pscpoll.kil command to kill this instance.
echo "#Script to kill instance of poll" > pscpoll.kil
echo "echo Searching for Poll with PID $!">>pscpoll.kil
echo "echo">>pscpoll.kil
echo "ps -p $! | grep pscc0020 > /dev/null">>pscpoll.kil
echo "if [ \$? -ne 0 ] ">>pscpoll.kil
echo "then echo PID $! is not the process id for Poll.
The">>pscpoll.kil
echo "echo Poll program started when this script was
created">>pscpoll.kil
echo "echo has since terminated.  If a Poll program is
still">>pscpoll.kil
echo "echo running, you should refer to the SmartStream
Guide to">>pscpoll.kil
echo "echo Server Services manual for instructions on
stopping">>pscpoll.kil
echo "echo Poll from the command line.">>pscpoll.kil
echo "else echo Stopping Poll now.">>pscpoll.kil
echo "kill $! ">>pscpoll.kil
echo "fi;rm pscpoll.kil">>pscpoll.kil

# Make sure it's executable
            chmod +x pscpoll.kil
            continue
echo
```

pscarpc.beg

The following script starts the Master Server program and generates a kill script named pscarpc.kil:

```
#!/bin/sh

# Asynchronous RPC Master Program Run Script
# Copyright (c) 1993-2000 Geac Enterprise Solutions,Inc.
# All Rights Reserved
# Author: Geac SmartStream
#
# 3/29/94
# Modify this script prior to running it, as it is
installed it is not usable!!!
#
echo
echo  Modify this script before running it.
echo
      exit
#
# Purpose : To initiate the Asynchronous RPC Master program
(pscc0050) in the background, and impervious to hang-up
signals.
#
# The output (if any) will be sent to arpc.log and errors
are sent
# to arpc.err.  Both files should be checked when there is
a problem.
#
# The PID (process ID) of the ARPC Master program is saved
and a kill script is created in the current directory for
an easy way to kill this instance of  the ARPC master
program.
#

#           Environment Variables
#
# DBSLANG = language code and dialect code.  This affects
the language of  the messages sent to the log file. EN =
english (with no dialect)
DBSLANG=EN;
export DBSLANG;

# Start it, with nohup so it won't exit when the terminal
session ends and redirect the stdout and stderr to files

            nohup pscc0050 >arpc.log 2>arpc.err &
```

```
#
# Build a script to kill this instance

echo Use the pscarpc.kil command to kill this instance.
echo "#Script to kill instance of ARPC Master program" >
pscarpc.kil
echo "echo Searching for the ARPC Master program with PID
$!">>pscarpc.kil
echo "echo">>pscarpc.kil
echo "ps -p $! | grep pscc0050 > /dev/null">>pscarpc.kil
echo "if [ \$? -ne 0 ] ">>pscarpc.kil
echo "then echo PID $! is not the process id for the ARPC
Master program.">>pscsched.kil
echo "echo The ARPC Master started when this script was
created">>pscarpc.kil
echo "echo has since terminated.  If an ARPC Master is
currently">>pscsched.kil
echo "echo running, you should refer to the SmartStream
Guide to">>pscarpc.kil


echo "echo Server Services manual for instructions on
stopping">>pscarpc.kil
echo "echo the ARPC Master program from the command
line.">>pscarpc.kil
echo "else echo Stopping the ARPC Master program
now.">>pscarpc.kil
echo "kill $! ">>pscarpc.kil
echo "fi;rm pscarpc.kil">>pscsched.kil

# Make sure it's executable
            chmod +x pscarpc.kil
            continue
echo
```

9 SmartStream Initialization Files

Chapter Contents

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dbs.ini Settings

The dbs.ini file contains most of the option settings in SmartStream. All of these options are customized using SmartStream preferences unless otherwise noted. It is broken out into sections, each of which is discussed separately. The dbs.ini file reflects only those options that you have installed on your system, so all of the following entries may not appear in your dbs.ini file.

- [DBS_PREFERENCES] Section
- [SmartStream] Section
- [DBSApps] Section
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- [Application] Section
- [Report] Section
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- [Reporter] Section
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- [Common Formulas] Section
- [MAIL Gateway] Section
- [Projects] Section
- [DynamicFont] Section

[DBS_PREFERENCES] Section

The [DBS_PREFERENCES] section contains options related to the SmartStream Preferences window.

Caution: These options should *never* be changed.

plt0301_w_preference_browser,pplssprf,SmartStream, General

Indicates that the SmartStream General preferences are available from the SmartStream Preferences window.

plt0302_w_preference_workflow,pplwkflw,SmartStream,Workflow

Indicates that the SmartStream Workflow preferences are available from the SmartStream Preferences window.

plt0304_w_preference_mail,pplinbx,SmartStream,Mail

Indicates that the SmartStream Mail preferences are available from the SmartStream Preferences window.

piq0300_preferences,piqprfnc,SmartStream,Connect

Indicates that the SmartStream Connect preferences are available from the SmartStream Preferences window.

psc0300_preferences,pscmstsc,Job,Scheduler

Indicates that the Job Scheduler preferences are available from the SmartStream Preferences window.

far2001_preferences,ccfrecei,Receivables

Indicates that the Receivables application preferences are available from the SmartStream Preferences window.

mcd0002_preferences,ccfmanu,Procurement,Common

Indicates that the Procurement Common application preferences are available from the SmartStream Preferences window.

[SmartStream] Section

The [SmartStream] section is used to indicate the user options that were set using the SmartStream Preferences window, the physical location of the software, and other settings.

Option	Description
SmartStream=C:\SSTRMXX	Indicates the location of the client installation.
UserID=PXD	Indicates the user's DBMS ID.
DBSERVER_INI=C:\SSTRMXX\DBSERVER.INI	Indicates the location of the dbserver.ini file. This file is used to store server log on IDs and other server information. This is often one dbserver.ini file shared by all the users of a network.
WiJitLogPath=C:\SSTRMXX\TEMP\	Indicates the location where the user desktop image file is stored. The default filename is *userid.txt*.
AgentLogPath=C:\SSTRMXX\TEMP\	Indicates the location where the agent process log file is stored.
AllAgentStartupOverride=0	Indicates that any SmartAgents that have been checked to autostart in the Agent Options will automatically start when the user logs on to SmartStream. These SmartAgents will continue to run when the user logs out of SmartStream. If a SmartAgent is already running, it will continue to run. Changing AllAgentStartupOverride to equal 1 only affects SmartAgents that are not running. 1 = Do not automatically start any agents. 0 = Automatically start agents.
OpenSSTray=0	Indicates that the tray is open. You cannot change this option.

Workflow Options

Option	Description
AMNotify=0	Indicates whether or not the Notify Me of New Tasks option to receive a message box or a beep when new tasks are in your New To Do List has been selected. 1 = Notify me of new tasks. 0 = Do not notify me of new tasks.
AMNotifyOfOwnMsg=0	Indicates whether or not the Suppress Task Notification option to receive a message box or beep tones or both when the task is generated by the user has been selected. 1 = Suppress task notification. 0 = Do not suppress task notification.
AMNotifyWindow=0	Indicates whether or not the Notify with Message Box option to receive a message box whenever you have new tasks in your New To Do List has been selected. 1 = Notify me with message box. 0 = Do not notify me with message box.
AMNotifyTone=0	Indicates whether or not the Notify option to receive a beep or beeps whenever you have new tasks in your New To Do List has been selected. Use the Notify me with Beeps spin box to set the number of beeps. 1 = Notify me with beep or beeps. 0 = Do not notify me with beep or beeps.
AMNotifyInterval=30	Indicates in minutes how often SmartStream checks for new tasks.
AMGetNextMsg=0	Indicates whether or not the option to move directly to the next task in the workflow after saving and updating a task has been selected. 1 = Get next task. 0 = Do not get next task.
AMDeleteMsg=0	Indicates whether or not the option to delete all tasks from your New To Do List after they have been completed has been selected. 1 = Delete all tasks after completion. 0 = Do not delete all tasks after completion.
Todolist=0	Indicates whether or not the option to refresh task counts at regular intervals has been selected. Use the Refresh Task Counts Every Minutes spin box to set the number of minutes between each refresh. 1 = Refresh task counts at regular intervals. 0 = Do not refresh task counts at regular intervals.

Option	Description
Todolist_Interval=15	Indicates the number of minutes between each refresh of the New To Do List. This option is only active if the Refresh Task Counts Every option has been selected.
RefreshTodoOnActivate=1	Indicates whether or not the To Do Window is refreshed when it is activated. 1 = Refresh the To Do Window. 0 = Do not refresh the To Do Window.

Display Options

Option	Description
SStrmMaximized=0	Indicates whether or not the SmartStream frame should be opened in a maximized state. 1 = Open in a maximized state. 0 = Do not open in a maximized state.
SStrmToolBarShown=1	Indicates whether or not the SmartStream toolbar is to be shown or hidden. The user changes this option by choosing View from the SmartStream menu. 1 = Show toolbar. 0 = Hide toolbar.
SStrmToolBarAlignment=2	Indicates the position of the SmartStream toolbar.
AppCascade=1	Indicates whether or not the windows will cascade when you log on. 1 = Cascade windows. 0 = Do not cascade windows.
OpenApplFrame=0	Indicates whether or not the activity window will be opened at start up. This takes you longer to log on to SmartStream, but it significantly cuts down the time it takes for the first opening of the activity window from SmartStream. 1 = Open activity window at startup. 0 = Do not open activity window at startup.
ShowToolbarText=0	Indicates whether or not the text next to the toolbar icon is seen. ShowToolbarText = 0 Do not show Toolbar text. ShowToolbarText = 1 Show Toolbar text.
BrowserTreeHasLines=1	Shows lines linking items in the Browser. 1 = Show lines. 0 = Do not show lines.

Option	Description
StartSmartBarOnSSLogon=1	Indicates whether or not the Quick Launcher is seen when you log on. 1 = Quick Launcher on. 0 = Quick Launcher off.
ConfirmClear=1	Indicates whether or not you want a message box to appear when you clear the active window that asks if you are sure if you want to clear the window. ConfirmClear=0 Do not confirm clear of the active window ConfirmClear=1 Confirm the clear of the active window

Mail Options

Option	Description
LogOnMail=0	Indicates whether or not the option to determine when the mail Log On window is displayed has been selected. 1 = Log on to mail at SmartStream logon time. 0 = Log on when a mail function is requested.

Printer Options

Option	Description
PostScriptPrinterPort=LPT3	Indicates the printer port used for printing PostScript Query&Reporter reports. **Note: -** You must associate the .qra postscript report files with the program prpc2010.exe to print PostScript reports.

File Locations

Option	Description
UpdateDirectory= [nw-drive]:\install\sstrmxx\patch	Indicates the location of the directory on the network file server that SmartStream was installed from.
ClientRFDIR=[nw-drive]:\install\patch	Indicates the drive, path, and directory of the client refresh directory. The files in this directory are scanned during the startup procedure and the client's files are refreshed if necessary.
DBSPATH_INI=C:\SSTRMXX\dbspath.ini	Indicates the drive, path and directory of the dbspath.ini file.
CUSTOM_INI=	Indicates the drive, path and directory of the custom.ini file.
DesktopServer=	Indicates the name of the server where the user's desktop resides.

Option	Description
CTLGDB=	The database on the desktop server where the ctlg table family resides.

[DBSApps] Section

The DBSApps section of the dbs.ini file indicates which SmartStream applications are installed on the client. If the applications are installed, the corresponding section of the dbs.ini file is read. Each application's install will add and maintain these sections. This section is used for refreshing SmartStream clients with patches. The Client Refresh process examines this section to determine which \patch\ss subdirectories on the file server to copy newer files from, and will do so to the local \sstream install.

Option	Description
ALLOCATIONS=0	Indicates whether or not Allocations is installed. 1 = Installed 0 = Not installed
ASSETS=0	Indicates whether or not SmartStream Financial Assets is installed. 1= Installed 0 = Not installed
COMMON=0	Indicates whether or not components shared across SmartStream applications (for example, bank, currency, and vendor) are installed. 1 = Installed 0 = Not installed
CONNECT=0	Indicates whether or not SmartStream Connect is installed. 1 = Installed 0 = Not installed
CONSOLID=0	Indicates whether or not Consolidations is installed. 1=Installed 0=Not installed
FINRECS=0	Indicates whether or not SmartStream Financial Records is installed. 1= Installed 0 = Not installed
FS=0	Indicates whether or not SmartStream Financial is installed. 1= Installed 0 = Not installed

Option	Description
HRS=0	Indicates whether or not SmartStream Human Resources is installed. 1 = Installed 0 = Not installed
MANAGEMENTREPORTER=0	Indicates whether or not Management Reporter is installed. 1= Installed 0 = Not installed
PAYABLES=0	Indicates whether or not SmartStream Financial Payables is installed. 1 = Installed 0 = Not installed
PERSONEL=0	Indicates whether or not Personnel is installed. 1 = Installed 0 = Not installed
PROJALLO=0	Indicates whether or not SmartStream Projects Allocation is installed. 1= Installed 0 = Not installed
PROJCOMM=0	Indicates whether or not SmartStream Projects Common is installed. 1= Installed 0 = Not installed
PROJECTS=0	Indicates whether or not SmartStream Projects is installed. 1= Installed 0 = Not installed
RECEIVBL=0	Indicates whether or not SmartStream Financial Receivables is installed. 1 = Installed 0 = Not installed
SUPPLIES=0	Indicates whether or not Supplies Management is installed. 1=Installed 0=Not installed

[Consolidations]

The Consolidations section is used to store settings for Consolidations.

Default_Curr_Code=USD

Indicates the currency code for consolidation entities. The default that you enter here displays on the Structure Point Properties window.

[Application] Section

The [Application] section is used to store activity window settings.

Option	Description
AppsMaximized=0	Indicates whether or not the application frame window will be maximized automatically at startup. This option is changed when you maximize or restore the application window size during a session. 1 = Maximize. 0 = Do not maximize.
ToolBarShown=1	Indicates whether or not the Application toolbar is displayed. You can change this option on the menu. 1 = Show toolbar 0 = Hide toolbar.
DoubleClick=0	Indicates the action that occurs when you double-click on a field in an application window. This option is changed by choosing the menu settings double-click option. 3 = Comment 2 = Zoom 1 = Paste Field 0 = Browse.
CalendarDay=1	Indicates the day of the week that appears as the first day of the week in the SmartStream Financial Periodic Calendar. 1= Sunday 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday
CalendarView=1	Indicates how the SmartStream Financial Periodic Calendar should be displayed. 1 = Calendar format 2 = Tabular format
ToolBarAlignment=2	Not currently used.

[Report] Section

The [Report] section is used to store settings for Decision Support Activities.

Option	Description
CEPFRMTMDA=C:\SSTRMXX\CEPFRMT.MDA	Indicates the location of Common Formatting Module Microsoft Access files.
FAPBALMDB=Install	Indicates the location of Accounts Payable Balancing Reports Microsoft Access files.
FBKACTMDB=C:\SSTRMXX\FBKACT.MDB	Indicates the location of Bank Activity Reports Microsoft Access files.
FPYREGSMDB=	Indicates the location of Payment Registers Microsoft Access files.
FGLMDB=	Indicates the location of Financial Records and Currency Microsoft Access files.
PRPLaunch=C:\SSTRMXX\PRPLAUN.EXE	Indicates the location of the executable that starts up Microsoft Access for SmartStream Manufacturing reports.
PRPERROR=d:\SSTRMXX\PRPERROR.MDA=rw	Indicates the location of Microsoft Access library files.
FPJMDB=C:\SSTRMXX\FPJ.MDB	Indicates the location of the Projects Microsoft Access files.

[OpenView] Section

The [OpenView] section is used to store settings for the Hewlett Packard OpenView tool.

Option	Description
TRAPon=	Indicates if the trap daemon is running. 0 = Not running 1 = Running
ManagerAddress=NULL	Indicates the internet protocol address for the Manager Host.
CommunityName=NULL	Indicates the domain name for the managed network.

[DocAttach] Section

The [DocAttach] section is used to store settings for document enablement.

Option	Description
LastUsedProvider=	System-maintained resource that identifies the provider and will display this provider in the document vendor drop-down list.
LastUsedType=	System-maintained resource that displays the provider type (file network or document vendor) on the client. The default is 0. 0 = File system 1 = Document vendor
FileSaveDirectory=	System-maintained resource that specifies the default shareable network directory where attachments will be placed. The default is set to Null.
FileNetwork=	Indicates which files are accessible. The default is 1. 0 (optional) = No network files are accessible. 1 (default) = All files in the network directory are accessible. 2 (optional) = All attached files are copied to the directory specified in the FileLocation option.
FileLocation=	Normally maintained in the dbserver.ini file. Administrators can add these settings to each user's dbs.ini file to allow them to access files on different networks and locations. However, doing so will override the settings in the dbserver.ini file.

[Reporting Tools] Section

The [Reporting Tools] section is used to store settings common to all reporting tools.

Option	Description
LastUsedLoc=	Indicates the last location used.
Driver=SQLServer	Indicates the version of ODBC that supports SmartStream Tools.
LogReportTemplate=c:\sstrm*xx*\rpttools\rlgu0001.rpt	Indicates the path where the Crystal report template is located.
ProcessPointsWithNoMailID=Y	Indicates permission to mail structures with point id's.
PointDisplay=0	Indicates point name, point description, or name:description, that is, how point information is displayed in Analyzer.
DeadLetter=c:\sstrm*xx*\rpttools\deadmail	Indicates the path to Job Scheduler.
Launcher=c:\sstrm*xx*\rpttools\rsce0002.exe	Indicates the path of the job scheduler.
TempPath=c:\sstrm*xx*\rpttools\temp	Used by migration and structures to determine the location of the Log files.
Log=Y	Indicates whether or not Logging is available.

Option	Description
UseEffectiveDate=N	Allows the choice of effective dated structures in the Structure Browser.
DefaultSecurity=0	Indicates the default security that is created as new objects are created 0 = public (i.e., security is granted to DBS, sa, owner, and PUBLIC) 1 = secured (i.e., security is granted only to DBS, sa, and the owner)
Application=prp	Indicates the default application code used when creating new objects
Category=1	Indicates the default category ID used when creating new objects.
Calendar Paster=c:\sstrm*xx*\PRPC5132.EXE	Indicates the path to the Report Series calendar paster.
RptgPath=	Indicates the location of the SmartStream Reporting Tools executables and libraries.

[Navigator] Section

The [Navigator] section is used to store settings for the Navigator.

InstallPath=c:\sstrm*xx*\rpttools\rnvm0001.exe

Indicates where the Navigator executables are installed.

DefaultGroupID=

DefaultTab=

Indicates which tab (Query, Report, and so on) was last used.

SortInfo=-1

Indicates last sort order.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not Tool Tips display.

The default is 1 (Yes).

WinState=

Indicates the last state of a window. The next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

HelpFile=c:\sstrm*xx*\rpttools\pqr1.hlp

The help file associated with Navigator.

FilterInfo=

Indicates the last used filter.

[Query] Section

The [Query] section is used to store settings for the Query tool.

InstallPath=c:\sstrm*xx*\rpttools\rqyd0001.exe

Where the Query executables are installed.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes).

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not Tool Tips display.

The default is 1 (Yes).

WinState=

Indicates the last state of a window. Next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

MRU1=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU2=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU3=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU4=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

LastLocation=none

Indicates the last location of a Query build.

QueryTimeout=120

Not currently used.

ColWidth=12

Indicates default QBE column width in Query Designer.

OLEServerPath=c:\sstrm*xx*\rpttools\rcmq1000.exe

Indicates whether or not a table will generate even if no results will return.

ObjApplication

Not currently used.

ObjCategory

Not currently used.

NoResults=Y

Indicates whether or not to create output table even if no results return (Y or N).

HelpFile=c:\sstrm*xx*\rpttools\pqr1.hlp

The help file associated with Query.

[Reporter] Section

The [Reporter] section is used to store settings for the Reporter tool.

InstallPath=c:\sstrm*xx*\rpttools\rrpd0001.exe

Where the Reporter executables are installed.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes).

ShowToolTips=1

Indicates whether or not ToolTips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. The next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

MRU1=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU2=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU3=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU4=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

HeaderDefault=

Indicates print default for Reporter Frameworks.

FooterDefault=

Indicates print default for Reporter Frameworks.

HDefaultFont=Times New Roman

Indicates print default for Reporter Frameworks.

FDefaultFont=Times New Roman

Indicates print default for Reporter Frameworks.

HDefaultSize=10

Indicates print default for Reporter Frameworks.

FDefaultSize=10

Indicates print default for Reporter Frameworks.

HDefaultAlign=Left

Indicates print default for Reporter Frameworks.

FDefaultAlign=Center

Indicates print default for Reporter Frameworks.

HDefaultBold=1

Indicates print default for Reporter Frameworks.

FDefaultBold=1

Indicates print default for Reporter Frameworks.

HDefaultItalic=1

Indicates print default for Reporter Frameworks.

FDefaultItalic=1

Indicates print default for Reporter Frameworks.

HDefaultUnder=0

Indicates print default for Reporter Frameworks.

FDefaultUnder=0

Indicates print default for Reporter Frameworks.

FontLargest=75

Indicates print default for Reporter Frameworks.

FontSmallest=6

Indicates print default for Reporter Frameworks.

PageFontSize=10

Indicates print default for Reporter Frameworks.

Objdeforient=SetPortrait

Indicates print default for Reporter Frameworks.

ObjDefScale=100

Indicates print default for Reporter Frameworks.

ObjDefPages=None

Indicates print default for Reporter Frameworks.

DefaultSummaryAlign=Right

Indicates print default for Reporter Frameworks.

CountryInch=1

Indicates print default for Reporter Frameworks.

Font=Arial

Indicates print default for Reporter Frameworks.

Size=8.25

Indicates print default for Reporter Frameworks.

Orientation=Portrait

Indicates print default for Reporter Frameworks.

QueryBuild=REPORTING

RunExePath=c:\sstrm*xx*\rpttools\rrpopen.exe

ObjApplication=

ObjCategory=

RunMode=0

RunStatus=0

HelpFile=c:\sstrm*xx*\rpttools\pqr1.hlp

Indicates the path to the help file associated with Reporter.

Design=0

[Analyzer] Section

InstallPath=c:\sstrm*xx*\rpttools\rand0001.exe

Where the Analyzer executables are installed.

RunExePath=c:\sstrm*xx*\rpttools\ranr0001.exe

Indicates the Anaylzer run executable.

PowerPlayExplorer=C:\Cognos\BI96

Indicates the location of Cognos PowerPlay Explorer.

PowerPlayXFormer=C:\Cognos\BI96

Indicates the location of Cognos PowerPlay Transformer.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not ToolTips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. The next time a window is opened the window will open in this state.

0 = normal

2 = maximized

MRU1=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU2=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU3=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU4=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

Rollup=SUM

Indicates the Analyzer rollup option setting.

The default is SUM

Scale=0

Indicates the Analyzer scale option setting.

The default is 0.

Decimal=0

Indicates the Analyzer decimal option setting.

The default is 0.

Missing=na

Indicates the Analyzer Missing option setting.

The default is na.

Timing=After

Indicates the Analyzer timing option setting.

The default is After.

DeleteFilesOnError=N

Controls whether or not files are deleted by the system when you create a report series and errors occur.

N = Do not delete files when errors occur.

Y = Delete files when errors occur.

SortByPointCount=Y

Indicates an alternative method of running that may result in faster execution.

ShowDDCols=11111

Indicates the display of columns in the designer.

0 = not display

1= display

ShowAmtCols=111111111

Indicates the display of columns in the designer.

0 = not display

1= display

Group ID=none

Not currently used.

RunStatus=0

Indicates when an Anaylzer is run through Report Series. Analyzer run process uses this entry to communicate to Report Series whether the run was successful.

HelpFile=c:\sstrm*xx*\rpttools\pqr2.hlp

The help file associated with Analyzer.

AnsiToOEM=N

Allows the use of International Character Sets in an Analyzer specification (Y or N).

UseBlankPoints=Y

Allows the use of a summary point that has a blank point as a descendent in an Analyzer specification (Y or N).

[Series] Section

InstallPath=c:\sstrm*xx*\rpttools\rrsd0001.exe

Where the Report Series executables are installed.

DefaultGroupID=

The default group to be used in the Group Drop Down List

SecurityProfile=

Default Security Profile used to schedule a Report Series

ClassName=

Default Class Name used to schedule a Report Series

MailPackagePath=

Indicates the path to the Reporting Tools temporary directory where mail package files are written temporarily.

ObjApplication=Query&Reporter

ObjCategory=Report Series

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not ToolTips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. Next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

MRU1=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU2=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU3=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU4=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

HelpFile=c:\sstrm*xx*\rpttools\pqr1.hlp

The help file associated with Report Series.

MailOption=0

Indicates the default mail option.

0 = individual

1 = package and mail

2 = package without mail

MailIncomplete=1

Indicates the default mail option for incomplete packages.

0 = mail

1 = do not mail

[MR] Section

InstallPath=c:\sstrm*xx*\rpttools\rmrd0001.exe

Where the Management Reporter executables are installed.

RunExePath=

Indicates the install path of the run executable.

DefaultGroupID=1

Identifies a Group to default into common dialogs & MR dialogs containing Group selection. Valid values correspond to values in GROUP_ID column on ROB_OBJECT_GROUP table.

DefaultPolicyID=1

Identifies which policy to use (which will determine the default balance table) to launch MR.

1=DSS
2=Ledger
3=Budget
4=Consolidations

DefaultContainer=1

Identifies default container type for report run.

1=Access
2=Excel

ABTable=ldr_acct_bal_formula

Indicates the balance table used for Average Balances.

MinGDI=30

Indicates the minimum GDI resources needed to run MR.

MinUSER=30

Indicates the minimum USER resources needed to run MR.

MinMemory=4096

Indicates the minimum memory in kilobytes needed to run MR.

MaxConnection=5

Identifies the maximum number of possible server connections for this client.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not Tool Tips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. Next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

MRU1=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU2=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU3=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU4=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

HelpFile=c:\sstrm*xx*\rpttools\pmr1.hlp

The help file associated with Management Reporter.

[Structures] Section

The [Structures] section is used to store settings for the Structures tool.

InstallPath=c:\sstrm*xx*\rpttools

Where the Structures executables are installed.

Last Exported File

The name of the last .prl, .def or .lss file you exported.

Last Imported File

The name of the last .prl, .def or .lss file you exported.

Last Group Name

Indicates the last group name from which you opened a structure.

MRU1=

Indicates the most recently used structure.

MRU2=

Indicates the most recently used structure.

MRU3=

Indicates the most recently used structure.

MRU4=

Indicates the most recently used structure.

HelpFile=c:\sstrm*xx*\psrc1000.hlp

HelpFile=c:\sstrm*xx*\psrc4000.hlp

HelpFile=c:\sstrm*xx*\psrc7000.hlp

The help files associated with Structures.

[Database] Section

MaxConnection=20

[Business Views] Section

InstallPath=

Where the Business Views executables are installed.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not Tool Tips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. Next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

MRU1=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU2=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU3=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

MRU4=

Indicates the most recently used Group ID and Object ID. Number and name display at the bottom of the File menu.

PreviewCount=10

InstallPath=

HelpFile=c:\sstrm*xx*\rpttools\pqr3.hlp

The help file associated with Business Views.

[Locations And Data Sources] Section

InstallPath=c:\sstrm*xx*\rpttools\rdsm0001.EXE

Where the Locations and Data Sources executables are installed.

ShowPhysical=1

Indicates the last used UI setting.

ShowProperties=1

Indicates the last used UI setting.

Driver=SQLServer

The ODBC Driver for which defined servers will appear in the list of available servers. The ODBC.INI is scanned for entries for this driver. All hits will appear in the server list.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not Tool Tips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. Next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

HelpFile=c:\sstrm*xx*\rpttools\pqr3.hlp

The help file associated with Locations and Data Sources.

[Parameters] Section

InstallPath=c:\sstrm*xx*\rpttools\rpad0001.exe

Where the Parameters executables are installed.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not Tool Tips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. Next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

LimitValues=0

Allows users to enter “Where Clause” when selecting values. This option is available when the Limit Values with SQL entry is checked under the Parameters menu item.

HelpFile=

Indicates the path to the Parameters help file.

[Reporting Policy Controls] Section

InstallPath=c:\sstrm*xx*\rpttools\rpcu0001.EXE

Where the Reporting Policy Controls executables are installed.

ShowToolbar=1

Indicates whether or not the toolbar displays.

The default is 1 (Yes)

ShowStatusbar=1

Indicates whether or not the status bar displays.

The default is 1 (Yes)

ShowToolTips=1

Indicates whether or not ToolTips display.

The default is 1 (Yes)

WinState=

Indicates the last state of a window. Next time a window is opened the window will open in this state.

0 = normal

1 = minimized

2 = maximized

HelpFile=c:\sstrm*xx*\rpttools\ppcp1.hlp

The help file associated with Reporting Policy Controls.

[Product Request] Section

The [ProductRequest] section of the dbs.ini is used to store settings for the SmartStream Product Request tool.

attachlimit=15

Indicates the number of 32 KB increments allowed for the size of a file you can attach to a product request. You can enter a value up to 9999.

The installed value is 15 (15x32K=480K).

debuglevel=3

Indicates which client files are attached to a product request.

0 = No files are attached.

1 = The dbs.ini and dbserver.ini files are attached.

2 = The win.ini, system.ini, autoexec.bat, config.sys files are attached

3 (default) = All files (DBS.INI, DBSERVER.INI, WIN.INI, SYSTEM.INI, AUTOEXEC.BAT, CONFIG.SYS) are attached.

autorestore=1

Specifies whether you see a prompt before any product requests stored in files are restored to the database when you start a product request.

0 = Displays a prompt before restoring.

1 = No prompt before restoring (installed value).

psp0010_recov_checked=False

Indicates that the system has checked for any files that need to be recovered for the database. **Do not change this setting.**

psp0130_recov_checked=False

Indicates that the system has checked for any files that need to be recovered for the database. **Do not change this setting.**

delete_todo=0

Specifies whether or not product requests are removed from the Workgroup To Do List after they have been read.

0 = Removes product requests from the Workgroup To Do List after they have been read .

1 = Prompts the user before deleting the product request from the Workgroup To Do List.

2 = Retains the product request in the Workgroup To Do List.

[Connect] Section

The [Connect] section of the dbs.ini is used to store settings for the SmartStream Connect application.

CICS Transaction=MCOM

Indicates the full name of the default CICS region where SmartStream Connect should be processed on the host. The default that you enter here displays in the SmartStream Connect Download Request, Host Job Submission, and Transaction Upload windows for every type of download request. This field contains up to 4 alphanumeric characters.

This option is changed using the SmartStream Preferences window.

Millennium Transaction=M2LL

Indicates the default Millennium transaction ID that runs M:VP and PC Link queries. This field displays in the SmartStream Connect Download Request window for M:VP Online Query and PC Link Query requests. This field contains up to 4 alphanumeric characters.

This option is changed using the SmartStream Preferences window.

Millennium Control Program=M2LLMDIO

Identifier for the default Millennium program. This field defaults to M2LLMDIO. Change the program name here if your installation has changed the name. This field displays in the SmartStream Connect Download Request window for M:VP Online Query and PC Link Query requests. This field contains up to 8 alphanumeric characters.

This option can be changed using the SmartStream Preferences window.

Millennium CQD Filename=M20000

Indicates the Millennium CQD database. M20000 is the default.

This option can be changed using the SmartStream Preferences window.

Upload Destination Filename=IQUPLD

Indicates the CICS filename on the host of the receiving IQUPLD file. This field displays on the SmartStream Connect Transaction Upload window.

Host Operating System=11

Indicates the target host's operating system.

Job Class=A

Indicates the class of job submitted to the host. This is optional and consists of 1 alphanumeric character.

[Job_Scheduler] Section

The [Job_Scheduler] section of the dbs.ini stores settings for the graphical user interface of the Job Scheduler.

Location=*

Indicates the path to the location of the graphical user interface for Job Scheduler.

[Mail] Section

The [Mail] section of the dbs.ini is used to store settings for mail communications. These settings tell PMAIL32.DLL how to communicate with the mail system.

MailAPI=0

Indicates the Application Programming Interface that SmartStream will use to connect to a mail system.

0 = MAPI Mail

Note: For SmartStream 6.0, service pack 2, 0 = MAPI Mail is the only valid option.

MailDLL=MAPI32.DLL

Defines the name of the Windows DLL that should be loaded to provide mail services. The filename extension is required. The only legal DLL is MAPI32.DLL.

TraceFile=c:\sstrmxx\mailtrc.txt

Specifies path of trace (log) file and turns SSTMail logging function on and off. Comment out this line or set the path to an empty string to disable this feature. Alternatively, set TraceFile=DBWIN to write the log to a debug window, such as the Microsoft DBWIN.EXE utility provided with Visual C++.

[CommonFormulas] Section

InstallPath=c:\sstrm*xx*\rpttools\cfm40.exe

Where the Formulas executables are installed.

LogPath=C:\SSTRMXX

Specifies where you want the Formulas log file to be created. The installation default is the SSTRMXX directory.

LogFileTraceLevel=2

Specifies the level of tracing for Formulas messages. The installation default is "2". The values can be as follows:

0 - No tracing

1 - Trace all unexpected errors

2 - Trace all unexpected and trapped errors (default)

3 - Trace all unexpected, trapped, and user errors

4 - Extension tracing including internal function calls.

ServerTimeOut=10

Indicates the amount of time, in seconds, the Formulas process waits while trying to connect to the database server before quitting.

[MAIL Gateway] Section

If the client device is used as the Mail Gateway device, the following entries should appear:

Mail Directory=c:\maildir

Indicates the location of the mail directory.

Log File=c:\windows\mailgate.log

Indicates where the log file will be stored (if used).

Check Mail Interval=15

Indicates in minutes the MAPI Gateway processing interval.

Admin=

Indicates the name and location of the person who will receive mail messages concerning the mail gateway.

Login=

Mail login ID used to establish a session with the mail system.

Password=

Encrypted password used to verify the logon to the mail system. This field should not be edited manually.

ChecktoDos=

Indicates that Mail Gateway will log on to the database to check for To Do tasks and messages to be mailed.

RunMinimized=0

Indicates you to run Mail Gateway in a minimized screen.

[Projects] Section

The [Projects] section is used to store settings for SmartStream Projects.

Project Entity=

The project entity selected on the last window displaying the Project Entity field.

[DynamicFont] Section

Contains options for displaying SmartStream windows in traditional Chinese.

Parameter	Description
DynamicFont=	Y= SmartStream windows will display in traditional Chinese N= SmartStream windows will not display in traditional Chinese
DynamicFontName=	The name of the font that will be used.
DynamicFontBold=	Y= Display characters in bold N = Do not display characters in bold
DynamicFontHeight=	The height of the font.

dbspath.ini Settings

The dbspath.ini file stores a list of SmartStream and related application objects (in the form of PowerBuilder .pbd files) that is used to enhance system performance.

Caution: SmartStream builds this list of objects dynamically when you start SmartStream. You should **not** change the order of the subpaths in this file. If you do so, you run the risk of degrading system performance.

PowerBuilder .pdbs that are specific to a particular SmartStream application are stored in that application's subpath. For example, the PowerBuilder .pdb related to the Job Scheduler (psc) is listed in the SMART_Scheduler subpath.

Objects that not stored in PowerBuilder .pdb files (for example, Query&Reporter objects, which are stored in a Microsoft Access .mdb), are not part of the dbspath.ini file.

Objects installed on the client machine have a parameter in the subpath of LOCAL. Objects accessed by the client machine, but installed on a network file server, have a parameter in the subpath of REMOTE. Objects not installed on the client machine or a network file server have a parameter in the subpath of UNUSED.

DBSCHED.INI Settings

The DBSCHED.INI file provides information that the Master Scheduler and Poll programs use during start up and normal processing. This .ini file contains only one section: [Scheduler].

Use the Job Scheduler Preferences section of the Preferences window to create or edit entries in the DBSCHED.INI file.

[SCHEDULER] Section

The [Scheduler] section is used to store settings for the Master Scheduler and Poll programs.

Server=

Indicates the name of the DBMS where the tsdx table resides.

Database=

Indicates the name of the Job Scheduler database where the tsdx table resides.

UserID=HA\

Indicates the server and database login ID for the server and database that contain the tsdx table. This can be up to 30 alphanumeric characters long.

Password=HA\

Indicates the password for the DBMS User ID. This can be up to 30 alphanumeric characters long.

Location=Central

Indicates which Job Scheduler location the Poll program belongs to.

Poll=FRAMWORK

Indicates the name of the Poll program. This can be up to 8 alphanumeric characters.

HostName=HA\Vrxjhg

This cannot be changed.

patch_enable=Y

This entry does not appear in the DBSCHED.INI for a server running the UNIX operating system.

Indicates whether or not poll refreshes the files in its directory when it starts.

Y = Refresh files.

N = Do not refresh files.

update_dir=c:\sstrmxx

Indicates the location of the update directory that poll uses to automatically refresh files. This entry does not appear in the DBSCHED.INI for a server running the UNIX operating system.

arpc_server=servername

Indicate the name of the arp server. This does not appear in your DBSCHED.INI for a Windows server.

dbserver.ini Settings

The dbserver.ini file is used to store server settings for SmartStream.

[DBSERVER] Section

The [DBSERVER] section of the dbserver.ini file is used to store server settings for SmartStream.

AllowTSDXOverride=1

Indicates which logon window the user sees:

0 = User ID and password only.

1 = FULL log on with database and server. Use 1 if you have more than one server (for example, test and production), that you can log on to.

Server=frmhp04s3

Indicates the primary SmartStream server name.

TSDXDB=DBSctlg

Indicates the primary SmartStream ctlg database.

Owner=dbo

The value **dbo** is required.

DBMS=

Indicates which DBMS is installed.

SYT = Sybase Adaptive Server Enterprise

MSS = Microsoft SQL Server

Hostname=HA\Vrxjhg

The value **HA\Vrxjhg** is required.

SyncMapiSybaseLogin=1

If set to 1, this forces the user's Mail ID to be the same as the SmartStream ID. On the Mail Logon window, the user ID is preloaded and uneditable. Only the password can be changed.

Terminal Server=

Set to N for a normal SmartStream client installation. Set to Y for a Terminal Server client installation.

[DBSUpdateApps] Section

The [DBSUpdateApps] section of the dbserver.ini file is used to store settings SmartStream uses to distribute support patches to each client machine.

Patch_Enable=0

Indicates if the patch update process may begin.

0 = Not enabled.

1 = Patch enabled.

If the patch process is enabled, SmartStream checks for updated files after logon. If updated files are found on the network, the refresh.exe program runs which shuts down SmartStream, updates the files, then restarts SmartStream.

If you are using Terminal Server, do not run multiple sessions of SmartStream when applying patches. You should start one instance of SmartStream, apply the patch, then allow multiple instances of SmartStream to begin.

[DocAttach] Section

The [DocAttach] section of the dbserver.ini file is used to store settings SmartStream uses for document enablement.

FileNetwork=

Indicates whether SmartStream has access to the file network.

0 = Locked out. There is no ability to attach documents to the file network in the attach dialog.

1 = Normal File Open. Provides unrestricted use of the file network by SmartStream.

2 = Restricted use of the network. This setting is used with the FileLocation resource, which specifies where documents can be attached from.

FileLocation=

If FileNetwork=2, this specifies the directory path from which users can copy attachments.

Provider1=

Indicates a vendor to add to the Attach a document from drop-down list of the Attachment window.

Provider2=

Indicates a vendor to add to the Attach a document from drop-down list of the Attachment window.

[Structures] Section

DBSosxp is the default database to which Open Structures exports tables. You can change the target export database by making the following entry in the [Structures] section of the DBServer.INI:

ExportServer=database_name

where "server_name" is the server to which you want to export.

ExportDatabase=database_name

where "database_name" is the database to which you want to export.

Note: You must have create table permission in the target database and server.

[Database Name] Section

The [Database Name] section of the dbserver.ini file is used to store properties for Panagon documents used by the Panagon databases. Add this section for each of the Panagon databases, and replace *Database Name* with the name of the database, for example, [Sampledb].

Name=

The default for this property is the title of the document. However, you can add a custom property for the document name using the custom property feature provided by Panagon for adding new document properties. Set the value for this custom property for document name to

Name=idmDocCustom<Propert ID>

For example, Name=idmDocCustom4

Type=

This property has no default. Add a custom property for document type and set this value to

Type=idmDocCustom<Property ID>

For example, Type=idmDocCustom5

Description=

This property has no default. Add a custom property for document description and set this value to

Description=idmDocCustom<Property ID>

For example, Description=idmDocCustom6

Author

The default for this property is the document owner. However, you can add a custom property for the document author and set this value to

Author=idmDocCustom<Property ID>

For example, Author=idmDocCustom7

Date=

The default for this property is the date the document is checked into the Panagon repository. However, you can add a custom property for the document date and set this value to

Date=idmDocCustom<Property ID>

For example, Date=idmDocCustom8

win.ini Settings

The following line must appear in each user's win.ini to run SmartStream.

[DBS] Section

The [DBS] section is used to indicate the location of the dbs.ini and DBSCHED.INI files and to determine where the client accesses the SmartStream Library.

DBS50_INI=c:\sstrmxx\dbs.ini

Indicates the location of the dbs.ini file.

DBSCHED_INI=C:\SSTRMXX\DBSCHED.INI

Indicates the location of the DBSCHED.INI file.

UseDocLinkLocal=0

Indicates that the client accesses the SmartStream Library through AnswerLink, the SmartStream support web site.

[SQLSERVER] Section

This section shows the location of the logical servers that you can access. For example, for Novell entries:

servername=WDBNOVTC,159.172.131.35,3000

For OS/2:

servername=DBNMP3,\SERVERNAME\PIPE\SQL\QUERY

msacc20.ini Settings

The [Libraries] section of the msacc20.ini file contains entries that specify the location of the .mda files for the MS Access reporting in SmartStream and loads these files into memory for report message processing:

C:\SSTRMXX\PRPERROR.MDA=RW

C:\SSSTRMXX\CEPFRMT.MDA=RO

[ODBC] Section

The [ODBC] section settings are used by Microsoft ODBC for interaction with SQL databases.

DisableAsync = 1

When using Microsoft Access 2.0, add this setting to run in synchronous mode. The default is asynchronous mode.

version.ini

This file contains SmartStream version information and is only used by the patch update process.

10 Product Code Naming Conventions

Chapter Contents

10-1 Product Code Naming Conventions

Product Code Naming Conventions

The following is a list of the SmartStream methodology of product naming. You can use this information to understand product-specific error codes and product activities.

Where Code	Meaning	Description and Values
s	Source Application Family	Use one of these values: **c** = Common Business **f** = Financials **h** = Human Resources **m** = Materials Management, Distribution **p** = Platform/Architecture **u** = User-defined **x** = Another software vendor's initial
aa	Application	A two-letter acronym that identifies the application code.

Application Codes

SmartStream application codes are listed in the following table:

Code	Product
aa	Workflow Administration (reserved for online Help files)
am	Workflow
ap	Accounts Payable

Code	Product
ar	Accounts Receivable
bk	Bank
bn	Benefits
ca	Cost Accounting
cd	Common Data
cf	Common Functions: Application Architecture; Platform; Common (such as Address/Telephone)
cl	Calendars
cm	Currency Management
co	Consolidations
da	Database Administration
dc	Data Collection
dr	Distribution
en	Engineering
ep	Enterprise Policy
fa	Asset Management
fc	Forecasting
gl	General Ledger
hs	Health & Safety
iq	SmartStream Connect
je	Journals
lc	Lot Control
lr	Labor Relations
lt	SmartStream
os	Organizational Structures
pl	SmartStream
pm	Project Management
pn	Personnel
po	Purchasing
py	Payments (Financial) and Payroll (HR)
qc	Quality Control
qe	Quotes & Estimating
rq	Requisitions
sc	Scheduler
sp	Support

Code	Product
sr	User-Defined
st	System
tc	Time Collection and Reporting
ut	Utilities
vn	Vendors
wm	Warehouse Management
wt	Warranty Tracking

SmartStream®

Thin Client Installation Guide

Release 6.5

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Introduction

This document serves as an installation, configuration, and training guide for SmartStream running on Microsoft® Terminal Server Services for Windows® 2000 Server and Citrix Metaframe.

For brevity, Microsoft Terminal Server Services for Windows 2000 Server is referred to as Terminal Services throughout the remainder of this guide.

This guide assists in

- Planning the environment
- Installing and configuring the thin client environment
- Installing and configuring SmartStream to run in this environment
- Installing and configuring the thin client software distribution mechanism
- Installing and configuring application security and user applications.

Skills Requirement

This guide requires an understanding of the following topics:

- Installing Windows 2000 Server
- Installing Terminal Services
- Installing Citrix Metaframe 1.8 or XP
- Terminal Services administration
- Microsoft Windows 2000 administration
- Microsoft command scripting
- Microsoft and Sybase SQL client configuration
- SmartStream installation
- Microsoft Office installation

1 SmartStream Terminal Services Environment

Chapter Contents

1-1 The SmartStream Terminal Services Environment
1-2 Standard SmartStream Environment
1-4 Adding Terminal Services to the Environment

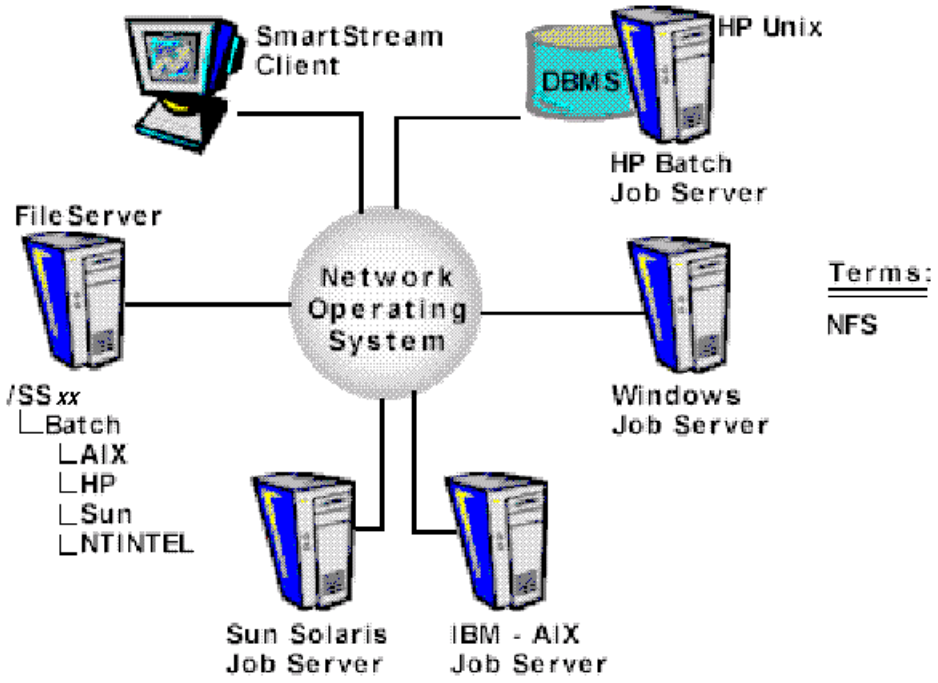
The SmartStream Terminal Services Environment

This chapter gives an overview of how Microsoft Terminal Services is integrated into the SmartStream environment.

For brevity, Microsoft Terminal Server Services for Windows 2000 Server is referred to as Terminal Services throughout the remainder of this guide.

Standard SmartStream Environment

The following figure shows all the components in the standard SmartStream client/server configuration.



Standard SmartStream Client/Server Environment

The standard SmartStream environment consists of the following components:

Installation Workstation

A Windows workstation is attached to the CD-ROM player and has a network connection to the other components that make up the SmartStream environment**.** The installation workstation is set up to install SmartStream and other required third-party products.

File Server

The file server is installed with all the SmartStream products and third-party products packaged on the compact discs delivered by Geac.

Database Server

The database server is installed with Sybase Adaptive Server Enterprise or Microsoft SQL Server and

- SmartStream product databases
- Initial data
- Stored procedures
- Triggers
- Views.

SmartStream Client Workstation

The SmartStream client workstations are installed with the necessary third-party products and SmartStream.

SmartStream Mail Gateway Workstation

The SmartStream Mail Gateway workstation, a connection for electronic mail, allows scheduled jobs to send messages to the user within SmartStream.

Job Server

Job Server provides the capability of running remote unattended processes.

Adding Terminal Services to the Environment

Adding Terminal Services does not change the configuration of the SmartStream environment components mentioned earlier. Terminal Services is added to the standard configuration. It acts as a multi-user client allowing many users to use the same installation of SmartStream simultaneously.

The following components are added to the environment:

- Terminal Services
- Citrix Metaframe
- Thin client connection application

Terminal Services

Terminal Services is a multi-user operating system that allows multiple users to log on to and run the installed applications using a remote desktop.

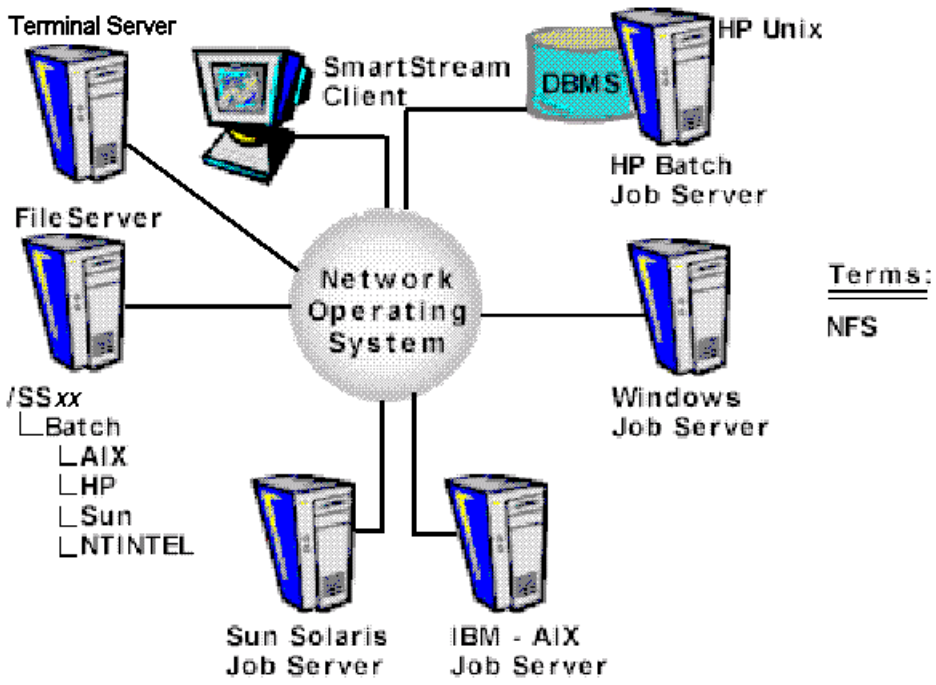
Citrix Metaframe

Citrix Metaframe extends the usability of Terminal Services. It provides a new connection protocol, ICA, which may be lighter and faster than the Microsoft RDP protocol. Also, Citrix Nfuse provides a Web-based client distribution mechanism and portal that makes administration easier.

Thin Client Connection Application

Each workstation connecting to the SmartStream environment through Terminal Services requires a thin client connection application. Terminal Services and Citrix Metaframe has their own connection applications, and these must be installed before using SmartStream.

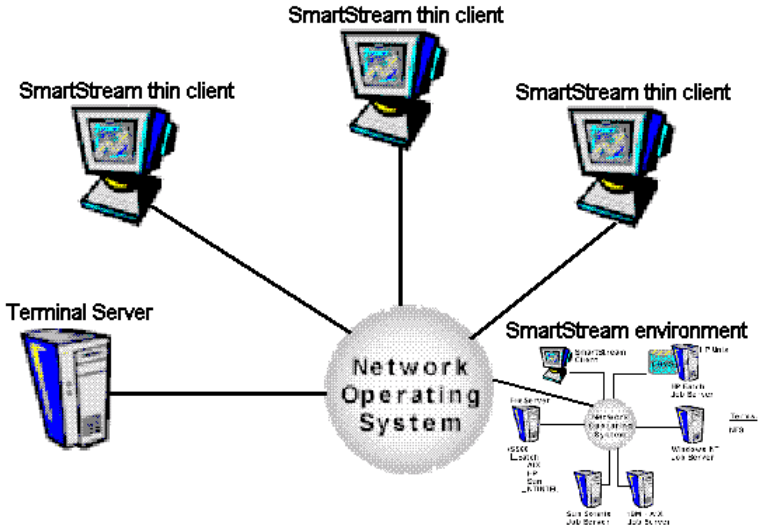
The following figure shows a SmartStream environment with Terminal Services added:



SmartStream Terminal Server Environment

Terminal Services contains a customized installation of the SmartStream client.

The following figure shows how thin clients connect to the SmartStream environment using Terminal Services:



Terminal Services Thin Client Configuration

2 Preparing for Installation

Chapter Contents

2-1 Software and Hardware Requirements

Software and Hardware Requirements

Adding Terminal Services to the SmartStream environment requires a number of third-party products not used in the standard environment. This chapter lists these products and the factors you need to consider before installing Terminal Services.

Software Requirements

The following software packages are required for installing and configuring the SmartStream Terminal Services and Citrix Metaframe environment:

- Microsoft Windows 2000 Server
- Microsoft Terminal Server Services for Windows 2000 Server
- Citrix Metaframe 1.8 or XP for Microsoft Windows 2000 Server
- Microsoft SQL Server Client or Sybase Open Client
- Microsoft Office 2000
- SmartStream client installation image

For more information about the supported versions of these applications, see the Supported Technical Environments topic on the AnswerLink Bulletin Board under SmartStream/Release Information/*release number*.

Microsoft Terminal Services Licensing

Microsoft Terminal Services ships with a temporary 45-day license. A full license must be installed within the 45-day trial period, or Terminal Services will refuse client connections. This licensing strategy applies whether or not Citrix Metaframe is installed.

Hardware Requirements

For hardware configuration information, see the Microsoft Terminal Services and Citrix Metaframe Web sites:

- http://www.microsoft.com/ntserver/terminalserver/
- http://www.citrix.com

3 Installing SmartStream in a Thin Client Environment

Chapter Contents

3-1 Installation Overview
3-2 Before You Begin
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Installation Overview

This chapter provides the installation, testing, and troubleshooting procedures required for installing SmartStream in a Terminal Services thin client environment.

The installation and configuration of the following components are discussed:

- Microsoft Windows 2000 Server
- Microsoft Windows 2000 Service Pack 2
- Microsoft Terminal Server Services for Windows 2000 Server
- Citrix Metaframe 1.8 or XP for Microsoft Windows 2000 Server
- Microsoft SQL Server 7.0 Client or Sybase 12 Open Client
- Microsoft Office 2000 (Including Microsoft Access)
- SmartStream client installation image

Before You Begin

Microsoft Windows 2000 Server forms the basis of the SmartStream Thin Client environment. It provides the operating system, networking, security, and user data storage functions to the SmartStream client environment.

It is highly recommended that you review the following documents before installing Terminal Services:

Additional Documentation

- Microsoft Windows 2000 Server - Windows 2000 Terminal Services Capacity and Scaling
- Online Documents

Location

- http://www.microsoft.com/windows2000/library/technologies/terminal/tscaling.asp
- http://windows.microsoft.com/windows2000/en/server/help/default.asp?url=/windows2000/en/server/help/sag_termsrv_topnode.htm

Installing Windows 2000 Server and Terminal Services

Install Windows 2000 Server and Terminal Services according to the installation instructions from Microsoft.

Location

The Microsoft Windows 2000 Server installation media contains documentation explaining the installation process for the operating system and Terminal Services.

Installation Considerations

Be sure to review the following information carefully before you begin installation:

- Do not use the Windows 2000 Server as a provider of general file and print services.
- Do not use the Windows 2000 Server as a provider of data services (that is, do not install Microsoft SQL Server or Sybase Adaptive Server on the same machine that Windows 2000 Server is installed on).
- Terminal Services automatically creates new profiles for each user logging on to this server for the first time. Terminal Services keeps track of applications installed for general use or for a specific user. It makes this distinction when the application installation switch is set or when the administrator loads a new application into the environment. The administrator installs an application for all users by entering the **change user \install** command to set the user mode to global when installing the application. Be careful using this command, and remember to enter the **change user \execute** command to set the user mode back to local after a global installation is completed.
- Install only the applications required in the Windows 2000 Server environment. Each user that logs on through Terminal Services is given a home directory structure. Some applications store custom files in these user environments. The custom files are copied to the home directory structure of each user whether that user uses the application or not, thus using unnecessary space.
- Ensure that the Terminal Services drive has enough space to accommodate the profile files for all users. This could include an average of 80 MB of space for every SmartStream user connecting to the environment.
- Configure the Windows 2000 Server networking so that all the network resources are available to the administrator account. Configure DNS, WINS, shared directories, and printers before any other users log on to this environment.

Post Installation Testing

Logging on to the Windows 2000 Server after installation creates the first user profile. This profile is stored in the \WINNT\Profiles\Administrator.000 directory. It is important to test connectivity to the newly installed Terminal Services as this administrator user.

Installing the Terminal Services Client

Microsoft provides Terminal Services clients for most Microsoft operating system environments. Any client can be used to test connectivity to the newly configured Windows 2000 Server. Install the appropriate client and establish a connection as the administrator of the Windows 2000 Server using a Terminal Services client.

Location

The Terminal Services clients are located on the Windows 2000 Server installation compact disc. The installation compact disc also contains documentation for installing the client software.

A successful connection indicates that the installation was successful. You can then begin the next installation step, installing Citrix Metaframe.

Troubleshooting a Failed Server Connection

Many problems can prevent successful connection to the server. Although it is impossible for this guide to assist in resolving all problems, the following table lists some of the most common causes and the corresponding solutions:

Possible Cause	Solution
The client configuration does not have TCP/IP access to the Terminal Services.	Use the PING utility to test network connectivity to the server. Test the networking configuration for both server and client.
You are using a server name that is not resolvable using the client's DNS configuration.	Use the PING utility to determine if connectivity can be established directly to the servers IP address. Check the spelling of the server name.
RDP protocol not configured properly	If TCP/IP connectivity is working but attempts to connect still fail, check the Terminal Services RDP protocol configuration from the Terminal Services administration utility (from the console). If the RDP protocol is not bound to any adapter in the server it cannot establish RDP sessions through the network.
The Terminal Services Client is separated from the Server by a firewall device	Request that your security administrator make provisions for using the RDP protocol across the firewall. This configuration is not recommended for testing.

For More Information

On the Microsoft Web site, search for all error codes you encountered during the failed logon session. Check the Windows 2000 Server event logs for information about the connection failure.

Installing Citrix Metaframe

Citrix Metaframe is a functional add-on to the Terminal Services environment. It adds the Independent Computing Architecture (ICA) protocol to the Terminal Services environment. The ICA protocol is similar in function to the Remote Desktop Protocol (RDP) protocol from Microsoft, but it is considered more efficient in establishing connectivity across the Internet. Another advantage of the ICA protocol is that its client connectivity application supports most operating systems including Linux, Solaris, and some hand-held devices.

The Citrix Metaframe application installs on top of the Microsoft Windows 2000 Server installation; therefore, very few configuration parameters are required during the installation process.

Step	Action
1	Insert the Citrix Metaframe 1.8 or XP for Microsoft Windows 2000 Server CD into the server's CD-ROM drive. **Result:** The installation application automatically starts. **Note:** If it does not start, run setup.exe from the installation CD.
2	Select the Metaframe Setup option to start the Citrix Metaframe installation.
3	Follow the installation instructions until the Citrix License installation window appears. **Note:** Make sure to add the license packs provided with the Citrix installation. The Citrix Metaframe installation usually contains a license number on the back of the installation CD's cover. Add this license using the Metaframe License utility.
4	Bypass the license activation at this point. **Note:** This can be done later using the Internet or by using the online activation tool provided.
5	Proceed to the Server Drive mapping installation option screen. **Do not select the Remap the server drives option at this time**. This option remaps all the server drive letters to the drive letter selected in the drop-down box. This configuration is permanent and cannot easily be changed. This SmartStream installation requires the server drive mappings to look line a normal Windows workstation. **Note:** Remapping the server drives does not affect the working of Microsoft Windows 2000 Server, nor does it cause any problems with SmartStream. The option not to remap the drives is for this installation only.
6	Follow the installation instructions to the end and then reboot the server.

Post Installation Testing

Similar to Terminal Services, it is now necessary to test the Citrix Metaframe installation. Install one of the Citrix Metaframe clients on a client workstation. Do not install the SmartStream client on the server at this time.

The Citrix Metaframe clients can be found on the Citrix Metaframe 1.8 or XP installation CD. You can use any client to test connectivity, but it may be easier to install the Citrix Metaframe client on a Windows NT or 98 workstation than any of the other supported client platforms.

Installing the Citrix Metaframe Client

Complete the following procedure to install the Citrix Metaframe Client:

Step	Action
1	Insert the Citrix Metaframe Installation CD into the client CD-ROM drive. **Result:** The Citrix installation window appears.
2	Click the ICA (Setup ICA Client) button to install the 32-bit ICA client. Follow the installation process and reboot the client workstation if required. **Result:** The Citrix Metaframe Client installation creates a new icon for the Citrix Program Neighborhood on the client desktop.
3	Start this application from the desktop or from the Start menu (Program/Citrix ICA Client).
4	Double-click the Add ICA Connection creation wizard. **Recommendation:** Test the Citrix installation from a workstation connected to the local area network. Running Citrix Metaframe over a wide area network or across the internet introduces many possible points of failure not related to the Citrix installation.
5	Give the new test connection a name. Select TCP/IP as the network protocol. **Note:** The other protocols have not been configured during the Citrix installation and can not be used at this point.
6	Provide the name of the newly installed Citrix server. You can select a server name from the drop-down list of Citrix servers installed on the local area network, or if this list does not contain the appropriate server name, you can type it in the field. **Note:** Having to type the name indicates that the ICA Broadcasting server may have a problem or your network configuration contains a router between you and the new Citrix server.
7	Ignore the published application option for the moment.
8	Proceed to the end of the installation accepting the default configuration criteria. **Result:** At completion, a new connection appears in the Citrix Program Neighborhood application.
9	Double-click this new icon to connect to the Citrix Metaframe server. **Result:** A connection window briefly appears. A remote desktop logon prompt follows the connection window.
10	Log on using the administrator logon for the server, and test the session to make sure it works properly.
11	Close the session.

Troubleshooting a Failed Server Connection

Many problems can prevent successful connection to the server. Although it is impossible for this guide to assist in resolving all problems, the following table lists some of the most common causes and the corresponding solutions:

Possible Cause	Solution
The client configuration does not have TCP/IP access to the Citrix server.	Use the PING utility to test network connectivity to the server. Test the networking configuration for both server and client.
You are using a server name that is not resolvable using the client's DNS configuration.	Use the PING utility to determine if connectivity can be established directly to the servers IP address. Check the spelling of the server name.
ICA protocol not configured properly.	If TCP/IP connectivity is working but attempts to connect still fail, check the Terminal Services ICA protocol configuration from the Terminal Services administration utility (from the console). If the ICA protocol is not bound to any adapter in the server, it cannot establish ICA sessions through the network.
The Citrix Server client is separated from the Server by a firewall device	Request that your security administrator make provisions for using the ICA protocol across the firewall. This configuration is not recommended for testing.

For More Information

On the Citrix Web site, search for all error codes you encountered during the failed logon session. Check the Windows 2000 Server event logs for information about the connection failure.

Configuring Windows 2000 Server to Run SmartStream

If the connectivity tests for both the Terminal Services and Citrix Metaframe clients succeeded, Microsoft Windows 2000 Server is ready to be configured for running SmartStream.

The following configuration steps need to be completed before SmartStream and the accompanying third-party products are installed.

Client Security Configuration

Log on to Microsoft Windows 2000 Server as the administrator from the console or through an ICA session. It is very important that you use the administrator's account to log on to Terminal Services at this time. Each user logging on to Terminal Services has a custom profile that keeps track of the individual user's settings and installed applications. If any other account is used at this point, the configurations performed will not be properly propagated to new users logging on to Terminal Services in the future.

The Microsoft security environment provides a number of different ways to approach user security configurations. Like Windows NT Server and Windows NT Workstation, Microsoft Windows 2000 Server takes part in the Microsoft domain security model. The security configuration you require depends on the manner in which Terminal Services was configured to function in the overall network security configuration.

A user needing access to Terminal Services requires one of the following security configurations:

- Has a user account created on the local machine
- Has an account in the domain in which the Windows 2000 Server resides
- Has an account in the domain for which the Windows 2000 Server is a PDC or BDC

For More Information

The Microsoft Web site contains a number of documents explaining how to secure and configure Terminal Services security. Read this information before you choose a security strategy.

Installing Third-Party Products Required by SmartStream

SmartStream requires the following third-party products to be installed on Terminal Services:

- Microsoft SQL Server 7.0 Client or Sybase Open Client 12
- Microsoft SQL Sever 7.0 or Sybase Open Client 12 32 bit ODBC drivers
- Microsoft Access 2000
- Microsoft Office 2000

The Global User Mode for SmartStream

SmartStream, and all its associated third-party applications, must be available to all users connecting to Terminal Services. Under no circumstances should any of the applications be installed for individual users. Applications installed for individual users use unnecessary space. It is difficult to perform upgrades to those applications.

The Terminal Services user mode is controlled from the command line and has to be set whenever installations or system configurations are performed. The mode can be switched between global and local using the following command line parameters:

Set to global user mode

```
change user \install
```

Set to local user mode

```
change user \execute
```

The global user mode automatically takes care of custom files needed for every user environment. Microsoft Windows 2000 Server keeps track of all .ini files and a registry entry created for the installed application and duplicates them for each user connecting to the server. This enables each user to customize his or her application environment even though the same installation is used for all users. When an application is installed in global user mode, Terminal Services remembers which .ini files and registry entries were created and creates them for each new user logging on to the server. It is very important that the globally installed application configuration works properly. Improperly installed global applications propagate incorrect configurations to all logged on users.

Always install new applications as the local administrator in global user mode. Remember to set Terminal Services back to local user mode when the installation is complete. Make configuration changes in Terminal Services in global user mode also. This ensures that the configuration change is propagated to all existing and new users at logon.

When the Control Panel Add/Remove Programs utility is used to install applications, Windows 2000 automatically sets the user mode to global for the installation and resets it to local after the installation.

Complete the following procedure to use this installation method:

Step	Action
1	Open the Add/Remove Programs utility from the Control Panel. **Result:** The Add/Remove Programs Properties dialog box appears.
2	Click the Install button under the **To install a new program from a floppy disk or CD-ROM drive, click Install** prompt at the top of the dialog box.
3	Insert the appropriate CD and click Next.
4	Click Browse, find the appropriate directory, and run the setup program. **Note:** To install a SmartStream client, type **setup.exe /a** to generate a SmartStream profile.
5	After the completion of the installation, click Next. **Result:** The Add/Remove Programs utility resets the Terminal Services user mode to local.

Installing Microsoft Connectivity

Install the following components:

- Microsoft SQL Server 7.0 Client
- ODBC drivers

Complete the following procedure to Install and configure Microsoft SQL Server Client and ODBC drivers.

Step	Action
1	Set the Terminal Services user mode to global.
2	Install and configure the Microsoft SQL Server 7.0 Client according to the instructions in the *Installation Guide* for SmartStream 6.5.
3	Add an entry for the database server using the SQL Server 7.0 Client Configuration utility according to the instructions in the *Installation Guide* for SmartStream 6.5.

Step	Action
4	Test connectivity by using the Query Analyzer utility to connect to a SmartStream 6.5 database
5	Set the Terminal Services user mode to local.

Installing Sybase Connectivity

Install the following components:

- Sybase 12.0 Open Client (32 bit)
- ODBC drivers

Complete the following procedure to Install and configure Sybase 12.0 Open Client (32 bit) and ODBC drivers.

Step	Action
1	Set the Terminal Services user mode to global.
2	Install and configure the Sybase 12.0 Open Client according to the instructions in the *Installation Guide* for SmartStream 6.5.
3	Add an entry for the database server using the Sybase DSEdit Configuration utility according to the instructions in the *Installation Guide* for SmartStream 6.5.
4	Test connectivity by using the ISQL utility to connect to a SmartStream 6.5 database.
5	Set the Terminal Services user mode to local.

Installing Microsoft Access and Office Products

Follow the special instructions from Microsoft for installing Microsoft Office 2000 on Terminal Services.

Review the following document:

OFF2000: How to Install Office 2000 on Windows 2000 Terminal Server - http://support.microsoft.com/support/kb/articles/Q224/3/13.ASP

Post Installation Testing

Test ODBC connectivity before installing the SmartStream client application.

Step	Action
1	Run Microsoft Access 2000.
2	Create a new test blank database.

Step	Action
3	From the File menu, click **Get External Data** and link a table.
4	In the Files of type drop-down list, click **ODBC Databases**.
5	From the Data Sources form, select the connection you created while installing the connectivity client (Sybase 12.0 Open Client or Microsoft SQL Server 7.0 Client). **Result:** A logon prompt appears.
6	Enter a login ID , password, and database name to connect to. Use DBSctlg. **Result:** An Attach Tables form appears.
7	Select the dbo.appl_user_group_1 table, and click the Attach button.
8	Open the newly attached table by double-clicking it, and confirm that it returns a data set. The 32-bit ODBC system is working properly if this step is successfully completed.

Installing the SmartStream Client

Microsoft Windows 2000 Server acts as a multi-user client workstation. Install the SmartStream client on this server the same way that you install it on a standard SmartStream workstation.

Step	Action
1	Set the Terminal Services user mode to global by running the SmartStream setup program using the Add/Remove Programs utility from Control Panel (run setup.exe /a).
2	Install the SmartStream client according to the instructions in the *Installation Guide* for SmartStream 6.5.
3	Copy the dbserver.ini and custom.ini files from the SmartStream file server to the installation directory on the Windows 2000 Server.

Configuring SmartStream, Windows 2000 Server, and Terminal Services

Complete the following post installation steps on the Windows 2000 Server:

- Copy files required for Formulas
- Run logon script to create and maintain SmartStream user files
- Configure the win.ini file
- Configure the dbserver.ini file
- Configure the dbs.ini file
- Configure the budget.ini file

Copy Files Required for Formula

For Formulas to start properly, you must copy the following .ocx files from the SmartStream directory on the file server to the SmartStream directory on Terminal Services:

- threed32.ocx
- msgblast.ocx
- picclp32.ocx
- comdlg32.ocx
- grid32.ocx

You must also make the following entries in the dbs.ini file:

```
[CommonFormulas]
InstallPath=d:\sstrm65\rpttools\cfm32.exe

[Report]
CFM=d:\sstrm65\rpttools\cfm32.exe
```

Run the Terminal Services Logon Script

Windows 2000 Server makes use of user profiles to store user preferences and desktop settings. Each user's profile contains a registry entry and a directory with the same name as the user logon name. This directory contains a number of files and subdirectories determining the user's current desktop configuration and also stores some of the user's personal files. Most applications use both the profile directory and registry structure to save data and configuration parameters not common for all users of the base application installation. This mechanism allows multiple users, connected to the same Terminal Services environment, to execute the same application installation and still have their custom configurations and data without interfering with other users.

SmartStream on the other hand does not use this mechanism. SmartStream relies on the win.ini file to specify the initial configuration file locations at execution time. Although Windows 2000 Server automatically propagates a new copy of the win.ini file to a user's profile, it does not know how to handle the other custom files for individual users required for a SmartStream installation. Therefore, thin client installation requires a logon script capable of building a custom SmartStream file directory for each user when the user logs on to the Windows 2000 Server for the first time. Later the logon script must check for updated files and update the user's SmartStream home directory accordingly.

Windows 2000 Server automatically executes a number of scripts when a user logs on using Terminal Services. The logon script contains a number of scripting steps that create a SmartStream home environment for each user.

SmartStream Logon Script Example

There are many different ways of developing scripting environments for the Windows 2000 environment. This example uses Windows command line scripting to perform the logon tasks required by SmartStream.

The following example script contains a line-by-line explanation of how the script works.

Running the Script

Windows 2000 Server automatically searches for a usrlogn1.cmd file in the Windows system32 directory. If it finds this file, Windows 2000 Server executes it when a user logs on to the Windows 2000 Server.

Requirements

These are the requirements for running SmartStream in the Terminal Services environment:

- SmartStream requires creation of the user's SmartStream directory
- SmartStream requires a private copy of all .ini, .mdb and .mda files for every user using the common SmartStream installation on the Windows 2000 Server.
- SmartStream requires a copy of the master installation directory structure in each user's home drive mapping.
- SmartStream Budget requires the following files to be executed and present in the user's home directory: Budget32.exe, budget.ini, bbdc0170.exe, bbdc0130.exe, and bbdc0140.exe. For more information, see AnswerLink Solution 15685.
- SmartStream HR Payroll requires the following files to be present and executed from the user's home directory: Hpycptrr.exe, Hpycptrw.exe, Hpycptrc.exe, Hpycptrn.exe, Hpybatch.ini, and Hpy2.pbd. For more information, see AnswerLink Solution 131008.
- SmartStream HR requires that the current user's localized settings specify the short date format as mm/dd/yyyy. The logon script has to update the registry settings for the user during logon to ensure that this change has been made. For more information, see Setting the Short Date Format Using the Registry Editor later in this section.

- SmartStream HR payroll reports from hrpay32.mdb require the user's ODBC.ini file to have a User DSN entry for the SmartStream database server. If this entry is missing, users can get an error message when requesting a report form the HR Payroll Request form. The logon script has to update the registry settings for the user during login to ensure that this change has been made. For more information, see AnswerLink Solution 349329.
- SmartStream requires mapping of the user's home drive and directory.
- SmartStream requires of mapping the SmartStream installation file server drive.

Conventions for Identifying Network Drives

These are the letters used in this example script to identify the appropriate network drives:

Letter	Description
d	The variable that represents the drive where the SmartStream client is installed on Terminal Services. This drive is also called the installation drive.
y	The variable that represents the drive where the file server resides. The File Server Setup program copied the SmartStream software files to this drive.
z	The variable that represents the drive where the user's home directory resides. All users' home directories must be mapped to this drive.
c	The variable that represents the drive where the operating system software for Terminal Services and Citrix resides. This drive is also called the system drive.
e	The variable that represents the drive where a user's home directory resides on the client workstation. This drive is also called the data drive. It is mapped to Drive Z for all thin clients.

The following example usrlogn1.cmd file contains the generic steps of the script required for this SmartStream installation. All lines in bold text are part of the script file; the rest is explanatory text.

Note: If you are installing SmartStream Structures, Workflow, or the SmartStream Reporting Tools, you must include the files in the \sstrm65\rpttools directory in the SmartStream master installation directory on Terminal Services. You must also tailor the usrlogn1.cmd file to include the executables run on the Citrix Client so that these executables are correctly copied to the user's home directory.

File Name USRLOGN1.CMD

The first line creates a directory for the SmartStream file on the user's home drive. The %USERNAME% system variable is used to create directory structure starting with the user's Windows logon name. This variable is automatically loaded with its value by Windows 2000 Server at logon time. This variable is used throughout the script so that the correct files are set up for the right user. This step of the script is ignored if the directory already exists.

```
MKDIR e:\%username%\sstrm65mss\
```

The following three lines copy the .ini, .mda, and .mdb files from the SmartStream master installation directory to the user's home path. These lines automatically create the directory structure in which to copy these files (The XCOPY /S Option). The XCOPY /Y option forces the command to execute without prompting the user for confirmation if the files already exist. The XCOPY /D option forces a date check on the destination files if they already exist. If the source files are newer than the ones in the destination directory, a force copy takes place. If the files in the destination directory have the same date as the source files, the copy is ignored. This mechanism is used to update the user's files at logon after the administrator performs a patch update.

```
XCOPY d:\sstrm65mss\*.ini e:\%USERNAME%\sstrm65mss\ /D /S /Y
XCOPY d:\sstrm65mss\*.MDA e:\%USERNAME%\sstrm65mss\ /D /S /Y
XCOPY d:\sstrm65mss\*.MDB e:\%USERNAME%\sstrm65mss\ /D /S /Y
```

The following four script lines copy the Budget Workbench files, as described in list of requirements at the beginning of this section, to the user's home directory. These files are executed and used from the user's home path after the dbs.ini and budget.ini files have been appropriately configured.

```
COPY d:\sstrm65mss\Budget32.exe e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\BUDGET.INI e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\bbdc0170.exe e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\bbdc0140.exe e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\dbspiv.ole e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\dbs_ole.xla e:\%USERNAME%\sstrm65mss\ /D /S /Y
```

The following two lines delete any links to the Z drive and then map (substitute) the Z drive to the user's home path. This allows every user (also SmartStream) to have access to the user's home files by connecting to the Z drive.

```
subst z: /D
subst z: e:\%USERNAME%
```

The following two lines delete any drive mappings to the Y drive and then map the installation file server to this drive. This mapping is used to download and apply any patch updates applied to the environment. The PERSISTENT:NO option forces a temporary mapping. A new mapping is required after rebooting the server.

```
net use y: /DELETE
net use y: \\atldevmm01\prodmant password /user:domain\username /PERSISTENT:NO
```

The following three lines create the empty directory structures required by SmartStream. These directories are used to store custom configuration files and log files not in existence when the user logs on for the first time.

```
MKDIR e:\%username%\sstrm65mss\rpttools\temp
MKDIR e:\%username%\sstrm65mss\rpttools\deadmail
MKDIR e:\%username%\sstrm65mss\temp
```

The following line applies to the short date configuration requirement in the list of requirements at the beginning of this section.

```
regedit /S c:\longdate.reg
```

The following five lines copy a number of files required by HR Payroll to the user's home directory. This HR Payroll requirement is described in the list of requirements at the beginning of this section.

```
COPY d:\sstrm65mss\Hpycptrr.exe e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\Hpycptrw.exe e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\Hpycptrc.exe e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\Hpycptrn.exe e:\%USERNAME%\sstrm65mss\ /D /S /Y
COPY d:\sstrm65mss\HPY2.pbd e:\%USERNAME%\sstrm65mss\ /D /S /Y
```

Setting the Short Date Format Using the Registry Editor

This section applies to the preceding script. It provides a procedure for creating a registry update file for the script to run that fixes problems with SmartStream HR Payroll where the default date format forces date entries within SmartStream to use a two-digit year. This problem is overcome by setting each user's short date format to mm/dd/yyyy. This has to be done when the user logs on to Terminal Services, and it is achieved by having the logon script update the HKCurrentUser registry key.

The following steps are required to create the registry update file:

Step	Action
1	Run the registry editor program (regedit.exe)
2	From the registry tree, open the HKey_Current_User, Control Panel, International branch. Make sure that International is highlighted.
3	On the Registry menu, click the Export Registry File option.
4	Provide a file name (for example, LongDate). Save the file at the root of Windows 2000 Server c: drive. Make sure that the Selected branch option is selected under the export range section. Also confirm that the correct tree is specified.
5	Close the registry editor and edit the file you just created with Notepad. Remove all but the following lines: Windows Registry Editor Version 5.00 [HKEY_CURRENT_USER\Control Panel\International] "sShortDate"="MM/dd/yy" Change "sShortDate"="MM/dd/yy" to "sShortDate"="MM/dd/yyyy" and save the file.
6	This file is used by the script file to set every user's date preference when the user logs on to the Windows 2000 Server.

Setting the User DSN Using the Registry Editor

This section applies to the preceding script. It provides a procedure for creating a registry update file for the script to run that fixes problems with SmartStream HR payroll reports form hrpay32.mdb. A command line entry in the login script runs the registry update file to add a User DNS entry for each user.

Step	Action
1	Create a User DSN entry for your SmartStream database server using the ODBC Data Source Administrator utility from Control Panel, and exit the utility when finished. **Note:** Use the same values that are used in the System DSN entry for your SmartStream database server.
2	Run the registry editor program (regedit.exe)
3	From the registry tree, open the HKey_Current_User, Software, ODBC, ODBC.ini branch. Make sure that ODBC.ini is highlighted.
3	On the Registry menu, click the Export Registry File option.
4	Provide a file name (for example, odbc_syb.reg or odbc_mss.reg). Save the file at the root of Windows 2000 Server c: drive. Make sure that the Selected branch option is selected under the export range section. Also confirm that the correct tree is specified.

Step	Action
5	Close the registry editor and edit the file you just created with Notepad. Remove all but the following lines: Windows Registry Editor Version 5.00 [HKEY_CURRENT_USER\Software\ODBC\ODBC.ini*your server name* Leave all of the details in this section [HKEY_CURRENT_USER\Software\ODBC\ODBC.ini\ODBC Data Sources] Remove all details in this section except the line that refers to your SmartStream database server, for example "*your server*"="Sybase ASE ODBC Driver" or "*your server*"="SQL Server"
6	Add the following line to your login script under the line to change the short date format: **regedit /S c:\odbc_syb.reg** or **regedit /S c:\odbc_mss.reg**
7	This file is used by the preceding script file to add the User DSN when the user logs on to the Windows 2000 Server.

Configure the win.ini File

SmartStream uses the win.ini file to determine where the SmartStream program files are installed. Traditionally, every Microsoft Windows machine had only one win.ini file. This was changed, however, for Terminal Services. Users that log on using Terminal Services have to have their own copy of the win.ini file. Windows 2000 Server automatically copies the version of the win.ini file that resides in the \winnt directory to each user's profile\windows directory. SmartStream uses the win.ini file in the user's profile path to find the SmartStream installation files.

SmartStream must be configured so that the configuration files in the user's home directory are used when SmartStream is started.

Warning: Update only the master win.ini file. Any changes to a specific user's win.ini file are lost when the master win.ini file is copied into the user's profile at logon.

Here is an example of the [DBS] section of the master win.ini file.

```
[DBS]
CurrentRelease=SS65
SS65=z:\sstrm65mss\dbs.ini
DBSCHED_INI=z:\sstrm65mss\rpttools\dbsched.ini
UseDocLinkLocal=0

[DBSReports,DBS]
HRPrintToFile=z:\sstrm65mss\dbsrpt.txt
```

Change the following entries under the [DBS] section in the master win.ini file:

Step	Action
1	Change SS65= key to point towards the dbs.ini file in the user's home directory. **Note:** Remember that the dbs.ini file is copied to the user's home directory during logon. Edit only the master copy of the dbs.ini file. Any changes made to a user's dbs.ini file are overwritten during logon.
2	Change the DBSCHED_INI= key to point to the dbsched.ini file in the user's home directory.

Change the following entry under the [DBSReports,DBS] section in the master win.ini file:

```
HRPrintTo File = key to point to user's SmartStream home directory.
```

Configure the dbserver.ini File

The dbserver.ini file contains the name and configuration parameters for the database server that need to be used for the current installation of SmartStream. Usually, this file is on the installation file server, and all client workstations have a drive mapping to this share. For Terminal Services, however, this file needs to be copied to the SmartStream master installation directory on the Windows 2000 Server. Besides database server information, this file also contains a configuration parameter telling the SmartStream client whether it is being run on Terminal Services. Because this parameter needs to be changed to Yes, the dbserver.ini file must be copied to the SmartStream master install directory.

Complete the following procedure to update the dbserver.ini file:

Step	Action
1	Copy the dbserver.ini file from the installation file server to the master SmartStream installation directory on the Windows 2000 Server.
2	Edit the dbserver.ini file in the master SmartStream installation directory using Notepad, and change "Terminalserver=N" to **"Terminalserver=Y"**
3	Change the Patch_Enable= parameter to **Patch_Enable=0**.
4	Save the file.

Configure the dbs.ini File

The dbs.ini file contains the bulk of configuration information required by SmartStream. This file also contains many parameters indicating the names and locations of SmartStream executables, database files, and other configuration files. Because some of the SmartStream files are copied to and used from the user's home directory, the locations of these files must be updated in the dbs.ini file.

To simplify explanation, a sample dbs.ini file with the file location changes applied is provided here. This file is valid only for the example configuration. Every installation of SmartStream on a Windows 2000 Server needs a dbs.ini file configured according to the locations of files specific to that installation.

In the sample dbs.ini file that follows, all the settings that were changed to make SmartStream work in the Windows 2000 Server environment are underlined. This sample file uses the following convention for naming the network drives:

- e: is the drive where the original SmartStream installation directory resides
- K: is the mapped file server drive
- z: is the user's mapped home drive

```
[DBS_PREFERENCES]
far2001_preferences,ccfrecei,Receivables
plt0301_w_preference_browser,pplssprf,SmartStream,General
plt0302_w_preference_workflow,pplwkflw,SmartStream,Workflow
plt0304_w_preference_mail,pplinbx,SmartStream,Mail
piq0300_preferences,piqprfnc,SmartStream,Connect
psc0300_preferences,pscmstsc,Job,Scheduler
```

```
[SmartStream]
SmartStream=d:\sstrm65hp\
UserID=
DBSERVER_INI=z:\sstrm65hp\DBSERVER.INI
WiJitLogPath=z:\sstrm65hp\TEMP\
AgentLogPath=z:\sstrm65hp\TEMP\
AllAgentStartupOverride=0
AMNotify=0
AMNotifyOfOwnMsg=0
AMNotifyWindow=0
AMNotifyTone=0
AMNotifyInterval=30
AMGetNextMsg=0
AMDeleteMsg=0
SStrmMaximized=0
SStrmToolBarShown=1
```

```
SStrmToolBarAlignment=2MoveCopy=0
MoveCopy=0
Todolist=0
Todolist_Interval=15
AppCascade=1
LogOnMail=0
OpenApplFrame=0
UpdateDirectory=
OpenSSTray=0
RefreshTodoOnActivate=1
BrowserTreeHasLines=1
StartSmartBarOnSSLogon=1
ShowToolbarText=1
CtlgDB=DBSctlg
ConfirmClear=1
DBSPATH_INI=z:\sstrm65hp\dbspath.ini
ClientRFDIR=Y:\65INST~1\65HP.SYB\patch
DesktopServer=radhp01s2
CUSTOM_INI=z:\sstrm65hp\custom.ini



[Reporting Tools]
CalendarPaster=d:\sstrm65hp\rpttools\prpc5132.exe
Driver=Sybase System 10
LogReportTemplate=
ProcessPointsWithNoMailID=Y
PointDisplay=0
LastUsedLoc=
DeadLetter=z:\sstrm65hp\rpttools\temp
Launcher=
TempPath=z:\sstrm65hp\rpttools\temp
Log=Y
UseEffectiveDate=Y
DefaultSecurity=0
Application=prp
Category=1
CalendarPaster=
RptgPath=



[Navigator]
InstallPath=
DefaultGroupID=
DefaultTab=
SortInfo=-1
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
```

```
HelpFile=
FilterInfo=


[Query]
InstallPath=
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
MRU1=
MRU2=
MRU3=
MRU4=
LastLocation=none
QueryTimeout=120
ColWidth=12
OLEServerPath=
ObjApplication=
ObjCategory=
NoResults=Y
HelpFile=


[Reporter]
InstallPath=
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
MRU1=
MRU2=
MRU3=
MRU4=
DefaultSummaryAlign=Right
QueryBuild=REPORTING
RunExePath=
Font=Arial
Size=8
ObjApplication=
ObjCategory=
Orientation=Portrait
RunMode=0
RunStatus=0
HelpFile=
```

```
[Analyzer]
InstallPath=
RunExePath=
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
MRU1=
MRU2=
MRU3=
MRU4=
Rollup=SUM
Scale=0
Decimal=0
Missing=na
Timing=Before
DeleteFilesOnError=0
AnsiToOEM=N
SortByPointCount=Y
ShowDDCols=11111
ShowAmtCols=111111111
GroupID=none
RunStatus=0
HelpFile=
UseBlankPoints=Y
PowerPlayExplorer=C:\Cognos\BI97\
PowerPlayXFormer=C:\Cognos\BI97\



[Series]
InstallPath=
DefaultGroupID=
MailOption=0
SecurityProfile=
ClassName=
MailPackagePath=
MailIncomplete=1
ObjApplication=Query&Reporter
ObjCategory=Report Series
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
MRU1=
MRU2=
MRU3=
MRU4=
HelpFile=
```

```
[MR]
InstallPath=
RunExePath=
DefaultGroupID=1
DefaultPolicyID=1
DefaultContainer=1
ABTable=ldr_acct_bal_formula
MinGDI=30
MinUSER=30
MinMemory=4096
MaxConnection=5
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
MRU1=
MRU2=
MRU3=
MRU4=
HelpFile=


[Structures]
InstallPath=d:\sstrm65hp\RPTTOOLS\psrc7032.exe
HelpFile=
SourceLayout=2
UseBlankPoints=Y


[Database]
MaxConnection=20


[Business Views]
InstallPath=
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
MRU1=
MRU2=
MRU3=
MRU4=
PreviewCount=10
HelpFile=
```

```
[Locations And Data Sources]
InstallPath=
ShowPhysical=1
ShowProperties=1
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
HelpFile=


[Parameters]
InstallPath=
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
LimitValues=0
HelpFile=


[Reporting Policy Controls]
InstallPath=
ShowToolbar=1
ShowStatusbar=1
ShowToolTips=1
WinState=
HelpFile=


[CommonFormulas]
InstallPath=d:\sstrm65hp\rpttools\cfm32.exe
LogFileTraceLevel=2
ServerTimeOut=10


[DSSFormulas]
InstallPath=
LogFileTraceLevel=2
ServerTimeOut=10


[Application]
AppsMaximized=0
ToolBarShown=1
```

```
DoubleClick=0
CalendarDay=1
CalendarView=1



[Report]
Access=
CEPFRMTMDA=z:\sstrm65hp\CEPFRMT.MDA
FAPBALMDB=z:\sstrm65hp\fapbal32.mdb
FBKACTMDB=z:\sstrm65hp\fbkact32.mdb
FPYREGSMDB=z:\sstrm65hp\fpyreg32.mdb
FGLMDB=Z:\sstrm65hp\FGL32.MDB
prpnew=&New==RNDNw()
prpClose=&Close==RNDCls()
prpSave=&Save==RNDSv()
prpSaveAs=&SaveAs==RNDSvAs()
prpExit=&Exit==RNDExt()
prpHelp1=&Help1==QRAHlpCntnts()
prpHelp2=&Help2==QRAHlpPrcdrs()
prpHelp3=&Help3==QRAHlpPrcdrs()
prpHelp4=&Help4==QRAHlpGlssry()
prpHelp5=&Help5==QRAHlpHwT()
prpAbout=&About==RNDAbt()
prpSearch=&Search==QRAHlpSrch()
prpActive=&Active==RNDHlpActv()
prpTutor=&Tutor==QRAHlpTtrl()
prpParameters=&Parameters==RNDPrmtrs()
prpPlaceParameters=Pl&aceParameters==RREOpnShwPrms()
CVNRPTSMDB=z:\sstrm65hp\cvnrpt32.mdb
CVNVITMMDB=z:\sstrm65hp\cvnvit32.mdb
CEPFRMT=z:\sstrm65hp\cepfrmt.mda=rw
PRPERROR=z:\sstrm65hp\PRPERROR.MDA=rw
HRErrorDB=z:\sstrm65hp\PRPERROR.MDA
FGLABMDB=z:\sstrm65hp\FGLAB32.MDB
FFASRPTMDB=z:\sstrm65hp\Ffarpt32.mdb
FCOMDB=z:\sstrm65hp\FCO32.MDB
FALMDB=z:\sstrm65hp\FAL32.MDB
BBDMDB=z:\sstrm65hp\BBD32.MDB
Workbench=z:\sstrm65hp\budget32.exe
FAPDRAFTMDB=z:\sstrm65hp\fapdrf32.mdb
FCRDUNMDB=z:\sstrm65hp\FCRDUN32.MDB
FARSTMMDB=z:\sstrm65hp\FARSTM32.MDB
FARTOTMDB=z:\sstrm65hp\FARTOT32.MDB
FARBALMDB=z:\sstrm65hp\FARBAL32.MDB
FCRSTAMDB=z:\sstrm65hp\FCRSTA32.MDB
FARATBMDB=z:\sstrm65hp\FARATB32.MDB
FARASRMDB=z:\sstrm65hp\FARASR32.MDB
FARDRPMDB=z:\sstrm65hp\FARDRP32.MDB
FARFCPMDB=z:\sstrm65hp\FARFCP32.MDB
FPJMDB=z:\sstrm65hp\fpj32.mdb
```

```
MCMRPT=z:\sstrm65hp\mcmrpt.mda=ro
MPOACTMDB=z:\sstrm65hp\mpoact32.mdb
HRStreamMDB=z:\sstrm65hp\hrstrm32.mdb
HRsmtmapMDB=z:\sstrm65hp\hrsmap32.MDB
HRpayMDB=z:\sstrm65hp\hrpay32.mdb
HRbenMDB=z:\sstrm65hp\hrben32.mdb
FEUBKCMDB=z:\sstrm65hp\feubk32.mdb
FFCMDB=z:\sstrm65hp\FFC32.MDB
CFM=d:\sstrm65hp\rpttools\cfm32.exe


[OpenView]
TRAPon=0
ManagerAddress=NULL
CommunityName=NULL


[ProductRequest]
attachlimit=15
debuglevel=3
autorestore=1
psp0010_recov_checked=False
psp0130_recov_checked=False


[Connect]
CICS Transaction=MCOM
Millennium Transaction=M2LL
Millennium Control Program=M2LLMDIO
Millennium CQD Filename=M20000
Upload Destination Filename=IQUPLD
Host Operating System=11
Job Class=A


[Job_Scheduler]
Location=*


[Mail]
MailAPI=0
MailDll=MAPI32.DLL
MailDll16=mapi.dll
TraceFile=z:\sstrm65hp\Mailtrc.txt
```

```
[Mail Gateway]
/* Entries to automatically logon to Mail Gateway */
Log File=
Login=
Password=
Mail Directory=
Check Mail Interval=
ChecktoDos=1
RunMinimized=0
SilentLogon=0
/* Mail ID to get administrative mail. Use Mail Gateway menu to set */
Admin=



[Funds Control]
MaxTransactionsViewed=500



[Setup]
SRCDIR=Y:\65INST~1\65HP.SYB\SS\
Autoexec=D:\AUTOEXEC.BAT



[DBSApps]
Connect=1
Common=1
LEDGER=1
ASSETS=1
CONSOLID=1
ALLOCATE=1
Budget=1
PAYABLES=1
RECEIVBL=1
PROJCOMM=1
PROJECTS=1
PROJALLO=1
SUPPLIES=1
PURCHASE=1
PERSONEL=1
PAYROLL=1
BENEFITS=1
EURO=1
FUND=1
```

```
[ManagementReporter]
SQLDataBase=DBSglep
CatalogTable=fgl_acct_bal_view_1


[Consolidations]
Default_Curr_Code=USD


[Report Scheduler]
NormalModeRunning=N
SecureModeRunning=N
HelpFile=d:\sstrm65hp\
HRHelpFile=hpy1en.hlp
DefaultHostPrinter=
```

Because the configuration changes made to the dbs.ini file depend on how the Windows 2000 Server is configured and how SmartStream is installed, It is not possible to give a step-by-step procedure for changing and updating the dbs.ini file.

Here is a procedure for making common configuration changes to the dbs.ini file:

Step	Action
1	Open the master dbs.ini file in the master SmartStream installation directory using Notepad.
2	Change the following configuration settings so that they point to the corresponding directory structures in the user's home path: ▪ DBSERVER_INI ▪ WiJitLogPath ▪ AgentLogPath ▪ DBSPATH_INI ▪ TempPath
3	Change the Workbench setting to point to the user's home directory. See AnswerLink Solution 15685.
4	Change the location settings for all .mdb and .mda database files to point to the user's home directory.
5	Save the file and close Notepad.

Warning: Always edit the master copy of the dbs.ini file. Any changes made to a specific user's dbs.ini file are overwritten during logon.

Configure the budget.ini File

The budget.ini file contains configuration parameters for SmartStream Budget. This file must be updated to satisfy the requirements listed in AnswerLink Solution 15685.

Warning: Always edit the master budget.ini file. Any changes to a specific user's budget.ini file are lost when the master budget.ini file is copied into the user's profile during logon.

Change the following entries in the master budget.ini file:

Step	Action
1	Open the master budget.ini file using Notepad
2	Under the [General] section, update the MDBPath= value to point to the user's custom file directory location.
3	Under the [Options] section, update the SystemDB= value to point to the user's custom file directory location.
4	Save the budget.ini file and close Notepad.

After Installing and Configuring the SmartStream Client

The SmartStream client is now installed and configured.

Step	Action
1	Reboot the Windows 2000 Server, and log on as the administrator.
2	Run SmartStream and test its functionality.

Troubleshooting SmartStream Problems

If SmartStream fails to start, go through the installation and confirm the following settings:

If...	Then...
SmartStream returns an error that the dbs.ini file cannot be found	Check the location for the dbs.ini file as specified in the win.ini file in the user's profile directory.
The win.ini file in the user's profile directory does not specify a location for the dbs.ini file	Delete the user profile and log on as that user again. Check the win.ini file again. If the problem persists, it is very likely that SmartStream was installed using the local user mode and not the global user mode. Install SmartStream again with the global user mode enabled.
The database server name does not appear, or the database server cannot be found, when logging into SmartStream	Check the location for the dbserver.ini file as specified in the dbs.ini file. The dbserver.ini file should reside in the SmartStream installation directory and should be common to all Terminal Services users.
SmartStream fails to find some of the .dll and executable files.	Check that the SmartStream installation directory is in the path statement. Check the dbs.ini file and confirm that the file locations are correctly specified

4 Administration

Chapter Contents

4-1 Overview
4-2 Performing a Client Refresh

Overview

This chapter contains information on the administrative tasks required to update and maintain the SmartStream client installation on Terminal Services.

Performing a Client Refresh

The SmartStream client refresh process compares versions of the files in the client installation with those of the files in the file server directories. The client refresh process copies newer versions of files to the client installation directory when SmartStream starts. SmartStream running on Terminal Services requires special consideration when running the refresh process. The SmartStream Terminal Services logon script creates a custom home directory for every user that logs on the server. This home directory contains all the .mdb, .mda, .ini and temporary files for each user. The logon script does a date comparison between the files in the installation directory and those in the home directories. If a newer file is found in the installation directory, it is copied to the user's home directory when the user logs on. Therefore, it is unnecessary for the SmartStream client refresh process to update every individual's home directory. The client refresh process updates only the installation directory, and the logon script pushes the newer files to each user.

Perform a client refresh using the following procedure:

Step	Action
1	Close all user sessions on Terminal Services.
2	Log on to Terminal Services as the administrator.
3	Make a backup copy of the win.ini file in the \winnt directory. **Note:** This file needs to be restored when the refresh process is completed.
4	Edit the win.ini file and change the paths for the SS65=, DBSCHED_INI= and HRPrintToFile= parameters to point the installation path. **Note:** These paths point usually to the user's home drive.
5	Make a backup copy of the dbs.ini file in the SmartStream installation directory. **Note:** This file needs to be restored when the refresh process is completed.
6	Edit the dbs.ini file and replace all references to the user's home drive with the installation path.
7	Edit the dbserver.ini file in the SmartStream installation directory, and set the Patch_Enable= parameter to **Patch_Enable=1**. **Note:** This starts the refresh process the next time SmartStream is started.
8	Run SmartStream. The client refresh process now replaces older versions of files in the installation directory. Check the refresh log file to confirm that the updated files were applied to the installation directory. Do not run SmartStream now.
9	Restore the original win.ini, dbs.ini, and dbserver.ini files.
10	Review the updates in the maint.txt file. If updates to the Microsoft Access .mdb files were delivered, run the dbpush process to apply the changes. **Note:** If you have customized the delivered SmartStream .mdb files, you need to apply these changes manually; otherwise, use the dbpush process.

SMARTStream®

Upgrade in Place for Sybase

Version 6.5

Edition 2

September 2001

Note: This is a Year 2000 Readiness Disclosure

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Certain SmartStream users may be designated as Lite Users. Lite Users are limited to use of the specific program functionality specified in the applicable license agreement or agreements with Geac Computer Systems, Inc. In all cases, Lite users may not run or create any standard or customized reports.

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Introduction

The SmartStream® *Upgrade in Place for Sybase* guide from Geac Enterprise Solutions (Geac) describes how to

- Prepare your SmartStream 6.0 Service Pack 3 environment for SmartStream 6.5
- Upgrade your environment
- Verify that your environment upgraded successfully.

Audience

The audience for this guide is users responsible for implementing and maintaining their SmartStream environments.

Prerequisites

You must be familiar with the following products to upgrade SmartStream:

- Sybase Open Client
- Sybase Adaptive Server Enterprise
- Windows NT Workstation
- SmartStream products
- UNIX or Windows NT Server

Conventions

The checkbox to the left of text (☐) identifies a task you complete during the migration process.

1 Overview

Chapter Contents

1-1 Before You Begin
1-2 Upgrade in Place Overview
1-4 What Is and Is Not Upgraded
1-5 Maintaining Data Integrity
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Before You Begin

Before you can use Upgrade in Place to upgrade from SmartStream 6.0 Service Pack 3 to SmartStream 6.5:

- Install Sybase 12.0 with the appropriate EBF.

  To determine the appropriate EBF, visit the AnswerLink Bulletin Board and review the 6.5.00 Supported Technical Environments topic (T162835) under SmartStream, Release Information, 6.5.00.
- Install SmartStream 6.5, including all languages and SmartStream Builder as applicable. See the SmartStream *Installation Guide* for installation instructions.
- Apply Service Pack 3 to your SmartStream 6.0 environment (you cannot upgrade to SmartStream 6.5 if Service Pack 3 has not been applied).
- Read this guide to become familiar with the upgrade process.
- Find all relevant solutions on SmartStream AnswerLink.

Upgrade in Place Overview

Upgrade in Place is applicable only if you are using a Sybase database management system (DBMS), running SmartStream Service Pack 3, and are migrating to SmartStream 6.5. The following table presents an overview of the traditional migration process compared with Upgrade in Place.

Migration Step	Traditional Migration	Upgrade In Place
Install File Server	Copies the licensed products from the SmartStream CD to your SmartStream 6.5 file server	Copies the licensed products to your SmartStream 6.5 file server
DBSprep	Ensures certain DBMS settings are in place before installation	Not needed
Database Create	Creates the SmartStream 6.5 databases	Not used
Database Load	Loads the tables, views, stored procedures, triggers and initial data	Not needed
Job Server Installation	Copies Job Server files to your UNIX or NT server	Reinstalls existing Job Servers
UDAK (Udak.exe)	Customizes tables, views, stored procedures, triggers, data windows and certain platform tables	Runs in special mode with database server “not available”
UDAK (setup.exe)	Reloads the customized tables, views, stored procedures and triggers into the databases	Not needed
UDAK (UdakMgrt.exe)	Customizes BLD files used during migration	Runs the BLD files used during upgrade
Migration Export	Generates BCP files for almost every table in 6.0 Service Pack 3	Not needed; automatically creates BCP files for tables that have changed between 6.0 Service Pack 3 and SmartStream 6.5
Migration Import	Loads the BCP files generated during export, and updates the table with additional data required by SmartStream	Not needed; automatically generates BCP files, reformats tables and reimports data automatically
UDAK (Udak.exe)	Reruns UDAK utility to process architecture tables	Reruns UDAK utility to process architecture tables
Reporting Tools Migration	Requires Xmove to complete the migration for certain reporting tool tables	Not needed; reporting tools tables do not change for SmartStream 6.5; moving data is not required

Migration Step	Traditional Migration	Upgrade In Place
Client Installation	After migration, the SmartStream client workstations must be re-installed with new SmartStream 6.5 programs	After migration, the SmartStream client workstations must be re-installed with new SmartStream 6.5 programs

What Is and Is Not Upgraded

This section describes the products and data that are

- Upgraded using SmartStream automated and manual processes
- Not upgraded using SmartStream-supported processes

What Is Upgraded

Upgrade in Place handles all SmartStream databases.

What Is Not Upgraded

Upgrade in Place does not upgrade

- Non-SmartStream databases and their associated data and objects (stored procedures, triggers, views, and tables)
- Non-SmartStream data and objects that are stored in SmartStream databases
- Databases and their associated data and objects that were built using SmartStream Builder

Maintaining Data Integrity

Maintaining data integrity while upgrading to SmartStream 6.5 is critical.

Recommendations

Review the following recommendations for maintaining data integrity before beginning the upgrade process:

- Prepare your server environments before upgrading data; for more information, see Chapter 2, Preparing for Upgrade
- Back up your current (6.0 Service Pack 3)
  - Database server
  - Job server
  - File server
- Ensure that no one is working in your current SmartStream environment during the upgrade process
- Ensure that you have successfully upgraded your environment to SmartStream 6.5 before putting the server back into production.

Variables That Affect Upgrade Time

The time required to upgrade a SmartStream environment varies depending on the following characteristics of your enterprise:

- Computing and networking capabilities
- Licensed products
- Tailored features, such as user-defined accounting key and language kits
- Database variables, such as the size of tables.

2 Preparing for Upgrade

Chapter Contents

2-1 About Preparing for Upgrade
2-2 Process Overview
2-3 Using SmartStream AnswerLink
2-4 Preparing the Upgrade Environment
2-6 Preparing the Database Server Environments
2-7 Establishing Connectivity

About Preparing for Upgrade

This chapter describes how to prepare your environments to upgrade to SmartStream 6.5.

Read this chapter and set up the required configuration before beginning the upgrade process.

Process Overview

The following table describes the process for preparing to upgrade your SmartStream products and data.

Stage	Description
1	Access SmartStream AnswerLink for the latest upgrade information and apply all available service packs for 6.0.
2	Prepare the upgrade environment.
3	Prepare the SmartStream server environments.
4	Establish connectivity to the servers and DBMS.

Using SmartStream AnswerLink

SmartStream AnswerLink contains the latest SmartStream upgrade information, if any. Before starting the upgrade process:

- Review the Critical Issues document on the AnswerLink Bulletin Board under SmartStream, Release Information, 6.5.00
- Apply individual solutions, as required, to your SmartStream 6.0 Service Pack 3 environment.

For more information about using SmartStream AnswerLink, see the SmartStream AnswerLink *Getting Started Guide*.

Preparing the Upgrade Environment

SmartStream 6.5 File Server

Before you can upgrade your 6.0 Service Pack 3 environment to SmartStream 6.5 you must create a SmartStream 6.5 file server that will hold all the objects required for your licensed products. For more information, see SmartStream *Installation Guide*.

After the SmartStream 6.5 file server is in place, copy the InstEnv directory from your 6.0 Service Pack 3 file server to your new SmartStream 6.5 file server. Be sure to copy all files and subdirectories contained in the InstEnv directory. Next, remove the upgrade directory from the InstEnv\Env*x* directory on your SmartStream 6.5 file server. If you fail to remove this directory before you run the upgrade process, the upgrade program detects it, sends the message that the upgrade process has been completed, and stops the process.

Change the dbserver.ini file in the SmartStream directory of your SmartStream 6.5 file server by updating the following entries with the name of your database server:

```
[DBSERVER]
Server=

[Structures]
ExportServer=
```

Apply AnswerLink Solutions

SmartStream AnswerLink contains the latest upgrade information. Before proceeding with the upgrade process, review the Critical Issues List on the AnswerLink Bulletin Board under SmartStream, Release Information, 6.5.00, and download required solutions.

Upgrade Workstation

Perform the upgrade on a workstation running Windows NT that conforms to the supported technical environments specification for SmartStream 6.5 found on AnswerLink.

Exported File Location

Data contained in tables that have changed for SmartStream 6.5 is extracted to .bcp files in your SmartStream 6.5 environment. If your DBMS is Sybase and you have installed the SmartStream 6.5 Job Server files on a UNIX host, you can extract these files to your choice of either

- The UNIX Server where Job Server is installed
- Your SmartStream 6.5 file server

The data is always extracted to your SmartStream 6.5 file server if you do not have a UNIX Job Server installed.

Space Requirement

Ensure that sufficient space is allocated on the server where the .bcp files are extracted. Appendix A identifies the tables that contain data to be extracted.

Preparing the Database Server Environments

Complete the following task to set up your database server before beginning the upgrade process.

Required Information

☐ Gather the following information for your 6.0 Service Pack 3 environment:

- Server name
- Server Internet Protocol (IP) address
- System administrator or database owner password

Establishing Connectivity

Complete the following tasks to establish connectivity.

DBMS Connectivity

☐ Verify that the workstation used to perform the upgrade can connect to your current DBMS server.

If your current DBMS is…	Then you must have…
Sybase	Sybase Open Client 12 (32-bit)

☐ Ensure that available log space is maximized in your 6.0 Service Pack 3 environment by using the following commands:

Use this command…	To…
Dump database db_name	Back up both the database and its transaction log.
Dump database db_name with no_log	Clear the log of the completed transactions.

Troubleshooting the Connection

If your 6.0 Service Pack 3 DBMS is…	Then check the…
Sybase Adaptive Server running on a UNIX server	Interfaces file.
Sybase Adaptive Server running on a Microsoft NT server	Dsedit utility on the upgrade workstation.

Additional Connectivity

☐ If you are extracting .bcp files onto your UNIX host where SmartStream Job Server is installed, you must also establish connectivity using the rexec protocol between the upgrade workstation and the UNIX host.

Read and Write Privileges

- ☐ Ensure that you have both read and write privileges for the drive and directory on the SmartStream 6.5 file server.

3 Tailoring Your Accounting Key

Chapter Contents

3-1 About Tailoring Your Accounting Key
3-2 Prerequisite Tasks
3-3 Process Overview
3-4 Copying the Current udak.ini File
3-5 Tailoring your Accounting Key
3-7 Building the Runtime Library
3-9 Running the Accounting Key Migration Program

About Tailoring Your Accounting Key

This chapter describes how to tailor your accounting key for your SmartStream 6.5 environment. You must perform these tasks before upgrading your data so that your SmartStream 6.5 tables, views, stored procedures, and triggers are loaded successfully.

Considerations for Tailoring Your Accounting Key

Tailor your accounting key for SmartStream 6.5 if your accounting key was tailored in your 6.0 Service Pack 3 environment.

Warning: You cannot change your accounting key during the upgrade process.

Prerequisite Tasks

Complete the following tasks before beginning any procedures for tailoring your accounting key.

- ☐ **Language kit customers**: Ensure that the language kits are loaded to your 6.0 Service Pack 3 database server. The language kits should also be installed on the SmartStream 6.5 file server.

- ☐ Ensure that the workstation running the User-Defined Accounting Key program has SmartStream 6.0 Service Pack 3 installed.

Process Overview

The following table describes the process of applying your SmartStream accounting key to SmartStream 6.5.

Step	Action
1	Copy the udak.ini file from your 6.0 Service Pack 3 file server to your SmartStream 6.5 file server.
2	Tailor your accounting key for your SmartStream 6.5 environment.
3	Regenerate your dynamic run-time library (.pbd) file.
4	Run the Accounting Key Migration utility to convert all files used during the upgrade process.

Copying the Current udak.ini File

The following table tells you how to copy the udak.ini file from your 6.0 Service Pack 3 environment to your SmartStream 6.5 file server.

Copy the udak.ini file from this directory...	To this directory...
*drive:**directory***dbms\udak**	*drive:**directory***dbms\udak**
Where: ▪ *drive* is the drive where SmartStream 6.0 SP 3 is installed ▪ *directory* is the directory where SmartStream 6.0 SP 3 files reside	Where: ▪ drive is the drive where SmartStream 6.5 is installed ▪ directory is the directory where SmartStream 6.5 files reside

Tailoring your Accounting Key

Running the User-Defined Accounting Key Program

Run the User-Defined Accounting Key program separately for each of the following products, in the order shown:

1. All currently licensed products

2. Consolidations, if it is currently licensed and has the accounting key tailored

Note: The udak.ini file must not identify a product as having a tailored accounting key if the accounting key was not tailored for it on the database server.

Setup Options

You choose specific options each time you run the User-Defined Accounting Key program. These options are as follows:

For…	Choose…
Database Server Status	Not Available – Only CD to file server completed.
Run Mode	Special – Process the following classes of objects: DataWindows, Scripts.

Procedure

Run the following program:

*drive**directory***dbms\udak\udak.exe**

Where:

- *drive* is the drive where SmartStream 6.5 is installed
- *directory* is the directory where SmartStream 6.5 files reside

Verifying Your Tailored Accounting Key

Complete the following tasks to verify your tailored accounting key:

- Perform the activities in the User-Defined Accounting Key program for reviewing or confirming your selections
- Check the \dbms\udak\udak.log file for errors.

Building the Runtime Library

After applying your accounting key, build the Runtime Library (udak.pbd).

Change Application to udak.pbl

The current application in PowerBuilder 5.0 must be the udak.pbl before you can build the Runtime Library (udak.pbd).

To change the application to udak.pbl, complete the following steps:

Step	Action
1	Open PowerBuilder 5.0 and click the second Application icon. **Warning**: The first two icons in PowerBuilder 5.0 are for Application. Be sure to click the second Application icon.
2	Select File and click on Open. **Result**: The Select Application Library dialog box appears.
3	Find and select the udak.pbl in the \ss directory.
4	Click Open. **Result**: The Select Application dialog box appears.
5	Click OK.

Now that you have changed your application udak.pbl, you can build the Runtime Library.

Build the Runtime Library

Warning: Ensure that all painter, except the Library painter, are closed, or PowerBuilder returns the error, **PB cannot rebuild while painter is open**.

To build the Runtime Library, complete the following steps:

Step	Action
1	Open PowerBuilder 5.0 and click on the Library icon.
2	Select the Library menu and click on Optimize.
3	After the Library has been optimized, select the Library menu again and click on Build Runtime Library. **Result**: The Build Runtime Library dialogue box appears.

4	Clear the Machine Code check box and click OK. Leave Resource Filename blank. **Result**: The Library dialog box appears.
5	You will be prompted, Replace existing *path*/udak.pbd? Click Yes. **Result**: The Runtime Library (udak.pbd) is built.

If the Machine Code check box is not cleared, PowerBuilder generates a udak.dll instead of a udak.pbd. Repeat steps 1 – 5 and clear the Machine Code check box.

Language Kits

The preceding steps must be completed for the udak.pbl in each language kit \ss directory.

Running the Accounting Key Migration Program

After tailoring your accounting key for your SmartStream 6.5 environment, run the Accounting Key Migration Utility. This utility converts the files used to process data during the upgrade.

Setup Options

Select the following setup options:

For…	Choose…
Database Server Status	Not Available – Only CD to file server completed

Procedure

Run the following program:

*drive:**directory***dbms\udak\udakmgrt.exe**

Where:

- *drive* is the drive where SmartStream 6.5 is installed
- *directory* is the directory where SmartStream 6.5 files reside

Results

On the file server, the Accounting Key Migration utility

- Reads the udak.ini file in the *drive:**directory***dbms\udak** directory to get the SmartStream 6.5 column names
- Reads the source files in the *drive:**directory***dbms\udak*****family*** directory and updates the *drive:**directory***dbms*****family*** files
- Converts the migration program to use your user-defined accounting key
- Processes only products you configured using the User-Defined Accounting Key program.

Troubleshooting

Check the udakmgrt.log file for processing errors when you complete the configuration process.

4 Upgrading Your Database Server

Chapter Contents

4-1 About Upgrading Your Database Server
4-2 Upgrade Process
4-3 Prerequisite Tasks for Upgrading SmartStream Products and Data
4-4 Running the SmartStream Upgrade Program

About Upgrading Your Database Server

This chapter describes how to

- Perform the prerequisite tasks
- Run the Upgrade program.

Upgrade Process

SmartStream Upgrade in Place

- Loads SmartStream 6.5 views, stored procedures, and triggers
- Loads additional data required by SmartStream 6.5
- Exports data for tables that have changed into .bcp files
- Reformats tables that have changed into the SmartStream 6.5 structure
- Imports data for tables that have changed into the SmartStream 6.5 table structure.

Prerequisite Tasks for Upgrading SmartStream Products and Data

UNIX Requirements

Complete the following tasks if you are generating .bcp files in a UNIX environment.

- ☐ Ensure that SmartStream 6.5 Job Server is installed. For Job Server installation instructions, see the SmartStream *Installation Guide*.
- ☐ Set up PC-to-UNIX connectivity for Job Server. Follow the instructions for installing Job Server in a UNIX environment in the Installing Job Server chapter of the SmartStream *Installation Guide*.

Running the SmartStream Upgrade Program

Run \dbms\upgrade\setup.exe to upgrade a SmartStream database server from 6.0 Service Pack 3 to SmartStream 6.5.

5 Post-Update Tasks

Chapter Contents

5-1 About Post Upgrade Tasks
5-2 Using Files Generated by the Upgrade Process
5-3 Tailoring Your Accounting Key
5-4 Reinstall SmartStream Client Workstations
5-6 Verifying the Upgrade Process

About Post Upgrade Tasks

You perform several tasks after running the SmartStream Upgrade program to

- Verify that the program exported and imported data for tables that changed accurately and completely
- Complete tailoring of your accounting key
- Reinstall client, Job Server, and Mail Gateway software
- Load any new products that have been licensed
- Load Language Kit data.

The update process is not complete until these tasks are completed.

Using Files Generated by the Upgrade Process

The upgrade process generated the following types of files:

- Error
- Output
- Restart

File Location

Files generated by the upgrade process are stored in the *drive*:*directory***instenv\env***X****upgrade** directory on your SmartStream 6.5 file server, where *X* = 1, 2, 3, and so on.

Error Files

The upgrade process generates error files (.err) when errors occur. Diagnose the problem and correct the error before continuing the upgrade process.

Output Files

Output files (.out) contain a record of errors or operations executed by the upgrade process.

Table Rows

Each output file displays the number of rows for each database table that is exported and imported during the upgrade process.

Restart Files

When an error occurs during the update, a restart file (.rst) is generated. This file identifies where to resume the upgrade process after you correct the error.

Warning: Do not delete these files.

Tailoring Your Accounting Key

After the upgrade process is complete, run udak.exe to process architecture tables. You must run this process at least once. If you have installed Consolidations, you need to run udak.exe a second time.

UDAK Options

You choose specific options when you run the User-Defined Accounting Key program. These options are as follows:

For…	Choose…
Database Server Status	Available – Full Install Completed.
Processing Level	All Products (except Consolidations).
Run Mode	Special – Process the following object class: Architecture Tables.

For Consolidations Users Only - UDAK Options

The UDAK options for Consolidations users are as follows:

For…	Choose…
Database Server Status	Available – Full Install Completed.
Processing Level	Consolidations.
Run Mode	Special – Process the following object class: Architecture Tables.

Reinstall SmartStream Client Workstations

After upgrading your database server to SmartStream 6.5, SmartStream client software must be installed again on any workstation currently running 6.0 Service Pack 3.

Warning: Attempting to access SmartStream 6.5 data with a 6.0 Service Pack 3 client causes errors.

If you are using a Microsoft SQL Server database management system, you must install Microsoft Distributed Transaction Coordinator (DTC) on the SmartStream client. For information about installing the DTC software, see the readme.txt file at this address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6

You can find the DTC setup program at the following address:

ftp://ftp.microsoft.com/bussys/distapps/MTS/public-fixes/usa/DTC/svcpack/nt4_sp6/i386

Reinstall SmartStream Mail Gateway

After upgrading your database server to SmartStream 6.5, mail gateway software must be installed again on any existing 6.0 Service Pack 3 mail gateway.

Reinstall SmartStream Job Server

If you have not already done so, reinstall any existing SmartStream 6.0 Service Pack 3 Job Servers from the SmartStream 6.5 file server.

If you are using a Microsoft SQL Server database management system, you must also install Microsoft DTC on the Job Server workstations. See the addresses for the readme.txt file and the setup program mentioned earlier.

Loading New Products

If you licensed new products with SmartStream 6.5, load them after the upgrade.

Warning: Do not load education data.

For information about how to install new products, see the SmartStream *Installation Guide*.

Loading Language Kits

If you licensed language kits for SmartStream 6.5, reload the language kits (for all products) to the DBMS after loading any new products, as applicable.

For information about how to load language kits, see the SmartStream *Installation Guide*.

Verifying the Upgrade Process

You can verify that data updated successfully using

- Output files
- Reports
- Activities.

Using Output Files

Review output files each time you run Upgrade in Place to verify that no errors occurred and all data processed.

Compare the number of rows for each table in the export output file with the number of rows in the import output file. If they do not match, the data might not have been updated successfully.

Using Reports

Generate reports in your 6.0 Service Pack 3 and SmartStream 6.5 environments. Compare the output to ensure that the reports match.

If they do not match, the data might not have been updated successfully.

Using this table, determine which of these reports you can use to help verify the success of your upgrade.

Product	Report
Asset Management	Cost Summary
	Expense Ledger
Ledger	Account Balance
	Chart of Accounts
Payables	Aged Unpaid Balance
	AP Liability
Receivables	Aged Trial Balance

Using Activities

If you upgraded a test server, run activities in your 6.0 Service Pack 3 and your SmartStream 6.5 environments. When the activities have completed, check that the results are the same.

If they do not match, the data might not have updated successfully.

Adding Security

You might need to add data security for activities added to your SmartStream 6.5 environment before you access them.

Using this table, determine the activities you can use to help verify the success of your upgrade.

Product	Activity
Asset Management	Asset Category Tables
	Asset Entity Policy
	Asset Location Tables
	Assets
Common Components	Enterprise Policy
Ledger	Account Balance
Human Resources	Benefits Plan
	Employee Assignment
	Employee Status
	Payroll Run Control
Payables	Invoice
	Payment Details
Receivables	Receivable Account
	Receivable Allocation History
	Receivable Document (and views)
	Remittance

Appendix A Table Changes

Appendix Contents

A-1 About Table Changes
A-1 Changed Tables for SmartStream 6.5
A-5 Dropped Tables for SmartStream 6.5
A-6 New Tables for SmartStream 6.5

About Table Changes

This appendix lists tables changed between SmartStream 6.0 Service Pack 3 and SmartStream 6.5, tables dropped for SmartStream 6.5, and new tables for SmartStream 6.5.

Changed Tables for SmartStream 6.5

The following tables have changed between SmartStream 6.0 Service Pack 3 and SmartStream 6.5 and may require data migration.

Data is not migrated for a changed table if the table change was an index change.

Whether data for a changed table is migrated is noted in the Migrate column of the tables listing changed tables. This column contains either of the following values:

- Yes - Data in this table is migrated.
- No - Data in this table is **not** migrated.

Shared Components

Table Family	Database	Table ID	Table Name	Migrate
bank	DBSbank	bk2r	remit_clearance_comnt_archive	No

Table Family	Database	Table ID	Table Name	Migrate
		bk3r	deposit_clearance_comnt_arch	No
		bkdr	deposit_clearance_archive	No
		bkrr	remit_clearance_archive	No
		dcwc	deposit_clearance_candidate_wk	No
		rcwc	remit_clearance_candidate_wk	No
cand	DBScand	cacr	cr_acct_candidate	No
		cadc	deposit_clearance_candidate	No
		cara	recv_acct_candidate	No
		carc	remit_clearance_candidate	No
		card	recv_doc_candidate	No
		carm	remit_candidate	No
vend	DBSvend	vend	vendor_loc_payables	Yes
vmst	DBSvmst	vips	vendor_loc_item_purchase_site	No
		vitm	vendor_loc_item	No

Funds Control

Table Family	Database	Table ID	Table Name	Migrate
fund	DBSfund	fcbl	fund_balance	No
		fcdt	deleted_fund_txns_work	Yes
		fctx	fund_transactions	Yes
		fcxa	fund_transactions_audit	Yes

Ledger

Table Family	Database	Table ID	Table Name	Migrate
glep	DBSglep	jeas	jrnl_entry_apprvl_status	Yes

Personnel

Table Family	Database	Table ID	Table Name	Migrate
hrpn	DBShrpn	hal7	emp_pin_aud	Yes
		ham9	location_aud	Yes
		heeo	eeo_reporting_establishment	Yes
		hema	employee_aud	Yes
		hina	individual_aud	Yes

Table Family	Database	Table ID	Table Name	Migrate
		hind	individual	Yes
		hloc	location	Yes
		hmpl	employee	Yes
		hpin	emp_pin	Yes
		huee	eeo_rptg_establishment_aud	Yes
hrac	DBShrac	hveh	work_vets_100_hiring_location	Yes
		hvep	work_vets_100_parent_company	Yes
		hver	work_vets_100_report_extract	Yes

Purchasing

Table Family	Database	Table ID	Table Name	Migrate
reqm	DBSreqm	srhm	sched_rcpt	No

Receivables

Table Family	Database	Table ID	Table Name	Migrate
cred	DBScred	crar	cr_acct_archive	No
		crcr	cr_acct_comnt_archive	No
		crdr	cr_acct_days_past_terms_arch	No
		crlr	dso_calc_credit_acct_archive	No
		crsr	acct_remit_statistics_archive	No
		crtr	cr_acct_contact_archive	No
		crvr	acct_recv_statistics_archive	No
		crwc	cr_acct_candidate_wk	No
rrcv	DBSrrcv	rawc	recv_acct_candidate_wk	No
		rcad	remit_recv_adj_activity	Yes
		rcap	remit_recv_alloc_activity	Yes
		rcbt	remit_trans	Yes
		rcmt	remit	Yes
		rdpt	deposit	Yes
		rdwc	recv_doc_candidate_wk	No
		rmwc	remit_candidate_wk	No
		rr1r	recv_doc_jrnl_line_archive	No
		rr2r	recv_doc_line_archive	No
		rr3r	recv_doc_line_tax_archive	No

Table Family	Database	Table ID	Table Name	Migrate
		rr4r	remit_recv_adj_act_comnt_arch	No
		rr5r	remit_comnt_archive	No
		rr6r	deposit_comnt_archive	No
		rrar	recv_acct_archive	No
		rrbr	recv_acct_bank_acct_archive	No
		rrcr	recv_acct_comnt_archive	No
		rrcv	recv_doc	No
		rrdr	recv_doc_archive	
		rrer	remit_recv_adj_activity_arch	Yes
		rrgr	recv_ctrl_grp_archive	No
		rrir	recv_acct_alternate_id_archive	No
		rrjr	recv_doc_jrnl_ctrl_archive	No
		rrlr	dso_calc_recv_acct_archive	No
		rrmr	recv_doc_comnt_archive	No
		rrnr	recv_acct_contact_archive	No
		rror	remit_recv_alloc_activity_arch	Yes
		rrpr	deposit_archive	Yes
		rrrr	remit_archive	Yes
		rrtr	recv_doc_activity_archive	No
		rrvr	dso_recv_input_archive	No
		rrxr	recv_doc_tax_archive	No

Dropped Tables for SmartStream 6.5

The following tables were dropped for SmartStream 6.5.

Shared Components

Table Family	Database	Table ID	Table Name
cand	DBScand	shcm	shipment_cand

Funds Control

Table Family	Database	Table ID	Table Name
fund	DBSfund	fcm1	fund_acct_migr
		fcm2	fund_budget_migr

Purchasing

Table Family	Database	Table ID	Table Name
puen	DBSpuen	pojc	purchase_order_jrnl_cntrl

New Tables for SmartStream 6.5

The following tables are new for SmartStream 6.5.

SmartStream

Table Family	Database	Table ID	Table Name
mesm	DBSCOMMON	objc	object_control
		objt	object_control_text

Shared Components

Table Family	Database	Table ID	Table Name
cand	DBScand	cabl	blanket_order_candidate
		cais	item_stockroom_candidate
		cait	item_ candidate
		cako	supplies_kit_order_candidate
		capo	purchase_order_candidate
		carq	req_candidate
		cart	return_header_candidate
		casr	sched_rcpt_candidate
		cavm	vendor_candidate
		cims	vendor_loc_item_orig_candidate
		civh	cost_inv_hist_candidate
vend	DBSvend	vena	vendor_loc_payables_archive
		vnba	vendor_loc_bank_acct_archive
		vnca	vendor_loc_payables_comnt_arch
		vnpa	vendor_loc_pd_history_tot_arch
		vnta	vendor_loc_history_tot_archive
		vnxa	vendor_loc_tax_archive
vmst	DBSvmst	vada	vendor_loc_addr_archive
		vasa	vendor_loc_item_amt_stat_arch
		vcla	vendor_loc_item_classn_arch
		vcma	vendor_loc_item_comnt_arch
		vmca	vendor_loc_contact_archive
		vmfa	vendor_loc_item_manufact_arch
		vmla	vendor_loc_archive
		vmsa	vendor_loc_item_origin_arch

Table Family	Database	Table ID	Table Name
		vmta	vendor_archive
		vmxa	vendor_loc_site_xref_archive
		vnaa	vendor_loc_acctg_distn_arch
		vnoa	vendor_order_amt_stats_arch
		vnqa	vendor_order_qty_stats_arch
		vp1a	vendor_loc_po_com_amt_sts_arch
		vp2a	vendor_loc_commodity_archive
		vpca	vendor_loc_item_price_arch
		vpda	vendor_perf_ratings_dtl_arch
		vpha	vendor_perf_ratings_hdr_arch
		vpra	vendor_perf_ratings_cmnt_arch
		vpsa	vendor_loc_item_pur_site_arch
		vsta	vendor_loc_item_stats_arch
		vtma	vendor_loc_item_arch
vpur	DBSvpur	vcla	vendor_loc_class_archive
		vpmr	vendor_loc_purch_comnt_arch
		vpua	vendor_loc_purchasing_archive

Budget

Table Family	Database	Table ID	Table Name
glep	DBSbdgt	frxs	frx_seg_code_tree

Consolidation

Table Family	Database	Table ID	Table Name
glep	DBScons	frxs	frx_seg_code_tree

Items

Table Family	Database	Table ID	Table Name
pmam	DBSpmam	pmca	item_comnt_archive
		pmha	item_history_archive
		pmma	item_archive
		ppxa	item_site_xref_archive
		pxha	item_site_xref_history_archive

Table Family	Database	Table ID	Table Name
pplm	DBSpplm	piha	item_stockroom_history_arch
		pkta	kit_definition_archive
		plha	item_plan_history_archive
		ppca	item_plan_comnt_archive
		ppla	item_plan_archive
		pska	item_stockroom_archive

Ledger

Table Family	Database	Table ID	Table Name
glep	DBSglep	frxs	frx_seg_code_tree

Payables

Table Family	Database	Table ID	Table Name
prqt	DBSprqt	prca	consolidated_sch_rcpt_dtl_arch
pymt	DBSpymt	pyac	pmt_temp_ach_pmts
		pycd	pmt_temp_check_detail
		pyck	pmt_temp_checks
		pypf	pmt_temp_print_file
		pypl	pmt_temp_print_log
		pysp	pmt_script

Personnel

Table Family	Database	Table ID	Table Name
hrpn	DBShrpn	hrp1	hrpoint_approval_queue
		hrp2	hrpoint_function
		hrp3	hrpoint_function_name
		hrp4	hrpoint_individual_pending
		hrp5	hrpoint_menu
		hrp6	hrpoint_menu_description
		hrp7	hrpoint_sys
		hrp8	hrpoint_sys_description

Procurement Common

Table Family	Database	Table ID	Table Name
plmm	DBSplmm	fesx	euro_site_audit
udef	DBSudef	paha	item_acctg_distn_archive

Purchasing

Table Family	Database	Table ID	Table Name
puen	DBSpuen	bhsa	blanket_order_std_phrase_arch
		blca	blanket_order_line_comnt_arch
		blha	blanket_order_comnt_archive
		blka	blanket_order_archive
		blla	blanket_order_line_archive
		blsa	blanket_ord_ln_std_phrase_arch
		pasa	purch_order_apprvl_status_arch
		pcna	purchase_order_comnt_archive
		pjla	po_project_jrnl_line_archive
		plda	purch_ord_line_std_phrase_arch
		plma	purch_order_line_comnt_archive
		plna	purchase_order_line_archive
		poha	purchase_order_archive
		poja	purchase_order_jrnl_line_arch
		posa	purch_order_std_phrase_archive
		pota	purchase_order_tax_archive
		ppja	po_project_jrnl_ctrl_archive
		psha	purchase_order_line_sched_arch
		psta	purch_ord_line_sched_tax_arch
		pvca	purch_order_apprvl_comnt_arch
reqm	DBSreqm	pora	purchase_order_req_archive
		raca	req_apprvl_comnt_archive
		reqa	req_archive
		rjla	req_line_jrnl_line_archive
		rlca	req_line_comnt_archive
		rqaa	req_apprvl_status_archive
		rqca	req_comnt_archive
		rqla	req_line_archive

Table Family	Database	Table ID	Table Name
		rsha	receipt_shipment_archive
		rtxa	return_req_xref_archive
		sdxa	sched_rcpt_doc_xref_archive
		skca	supplies_kit_order_comnt_arch
		skda	supplies_kit_order_ln_dtl_arch
		skha	supplies_kit_order_archive
		skla	supplies_kit_order_line_arch
		srca	sched_rcpt_com_archive
		srda	sched_rcpt_detail_archive
		srha	sched_rcpt_archive
		srqa	receipt_req_xref_archive
poan	DBSpoan	piaa	purch_ord_item_cmnt_ann_arch
		plaa	purch_ord_line_annals_archive
		pmaa	purch_ord_comnt_annals_archive
		pnaa	purch_order_ln_comnt_ann_arch
		poaa	purchase_order_annals_archive
		ppaa	purch_ord_std_phrs_annals_arch
		psaa	purch_ord_ln_sched_annals_arch
		pspa	purch_ord_ln_std_phrs_ann_arch

Receivables

Table Family	Database	Table ID	Table Name
rrcv	DBSrrcv	rrca	remit_tagged_alloc_mc

Receiving

Table Family	Database	Table ID	Table Name
ropm	DBSropm	dsca	discrepant_receipt_comnt_arch
		dsha	discrepant_receipt_hist_arch
		dsra	discrepant_receipt_arch
		rcca	receipt_rejections_comnt_arch
		rcja	receipt_rejections_arch
		rtca	return_comnt_archive
		rtla	return_line_archive
		rtna	return_header_archive

Supplies Management

Table Family	Database	Table ID	Table Name
iplm	DBSiplm	spca	supplies_picklist_archive
		spkw	supplies_picklist_arch_work
		spla	supplies_picklist_line_archive

Supplies Management Cost

Table Family	Database	Table ID	Table Name
cost	DBScost	ciea	cost_item_elem_archive
		cita	cost_item_archive
		cisa	cost_item_stkr_archive
		cjca	cost_jrnl_ctrl_archive
		cjla	cost_jrnl_line_archive
		ckia	cost_kip_archive
		cpaa	cost_posted_acct_archive
		cpca	cost_proj_jrnl_ctrl_archive
		cpga	cost_inv_posted_gl_archive
		cpla	cost_proj_jrnl_line_archive
		ct1a	cost_type_item_comnts_archive
		ct4a	cost_type_item_history_archive
		ctia	cost_type_item_archive
		drca	cost_inv_acct_archive
		iada	cost_inv_adjust_archive
		icta	cost_inv_costed_archive
		ieha	cost_item_elem_chg_hist_arch
		inva	cost_inv_hist_archive
		koda	cost_kit_ord_line_dtl_archive
		kola	cost_kit_ord_line_archive
		msca	cost_inv_misc_acct_archive
		sina	cost_supp_inv_balance_archive
		stca	cost_inv_consgt_archive
		stka	cost_inv_stkr_archive
		wipa	cost_inv_wip_archive
		xava	cost_xfer_avg_cost_archive

Table Family	Database	Table ID	Table Name
		xfra	cost_inv_xfer_ord_archive