Software through Pictures®

Millenium Edition

Migrating to StP 8

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Software through Pictures
Migrating to StP 8

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World Headquarters
5040 Shoreham Place, Suite 100
San Diego, CA 92122
Phone: (800) 97-AONIX
Fax: (858) 824-0212
E-mail: info@aonix.com
http://www.aonix.com

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1 Before Starting Migration

This document describes how to migrate StP systems using the latest StP release. All systems created with versions of StP prior to version 8.3 must be migrated.

Before migrating, carefully read the following sections in this chapter:

Chapter 2, "Migrating StP Systems," contains the actual procedures for migrating.

Appendix A, "Reference Information," contains a sample migration log and error messages.

Overview of the Migration Process

The StP Migration Wizard is invoked from within StP and guides you through the process of converting one or more systems.

This section includes the following information:

- "What is Migrated?"
- "Who Can Migrate StP Systems" on page 1-4
- "Backing Up Source Files" on page 1-5
- "Migration Options" on page 1-5

Note: Migration from ISE 4.2D and StP Core 1.x systems is not supported by the StP Migration Wizard. To migrate these earlier StP systems to StP, you must first migrate them to StP Core 2.6. Contact Aonix Technical Support for details.

What is Migrated?

You can migrate a single system, or batch-migrate some or all of the StP systems within a project directory. Batch migration of multiple projects is not supported. Only entire systems can be migrated; you cannot migrate part of a system, such as individual diagrams, tables, or annotations.

The repository is not migrated. The migration process migrates system flat files and then rebuilds the repository.

The source StP system and its repository server may reside on either a UNIX or Windows NT platform, provided it is accessible to the StP installation. If the repository server is not accessible, migration performance will be slower, as detailed in "System Migration" on page 1-3.

Prior to StP 8.0, repositories were managed as Sybase databases only. Optionally, when migrating to StP 8.x, you can convert a source system's Sybase database to a Microsoft Jet database.

There are three parts to an StP migration:

- Migrating customizations and enhancements
- System migration

- Creation of a new semantic model for reverse-engineered systems

Migrating Customizations and Enhancements

Customizations and enhancements to StP systems should be tested with STP before system migration.

If your existing system includes customizations or enhancements, contact your Aonix AE (Applications Engineer) for assistance before migrating to StP.

System Migration

System migration is handled by the StP Migration Wizard, and includes:

- Copying and upgrading the source StP system ASCII files
- Re-creating the StP system repository for the migrated system from the system ASCII files and adding the system owner, writers, and readers from the old repository

The migrated StP system may either replace the source system or may be placed in a new project directory. In either case, the system name remains the same.

The owner of the migrated system repository is the current user. If the original owner is not the current user, the original owner is added as a system writer.

Additional repository readers and writers are replicated from the source repository, if applicable.

For optimal speed and the most complete automated migration, the StP Migration Wizard must be able to connect directly to the StP source system repository to:

- Migrate system flat files and rebuild the repository (the repository itself is not migrated)
- Replicate repository access rights for readers and writers on the migrated system
- Obtain repository size information (for target Sybase databases only)

If the original StP repository no longer exists or is unreachable from the current host, the StP Migration Wizard re-creates the repository for the migrated system from the source system ASCII files. However, this process requires considerably more time than generating the repository from dump files.

Also, if the original repository is inaccessible, the repository user permissions must be reset manually from the StP Desktop, using **Repository > Manage Users > Current System> Add Sybase User(s)**. For more information on adding Sybase users, see the StP *Administration Guide*.

If migrating to a Sybase database, the repository size is replicated from the original repository and, if necessary, expanded to meet StP requirements. If the original repository is not available, the repository size information is determined during the migration process from the source system ASCII files.

If migrating to a Microsoft Jet database, the database auto-grows, as necessary; its size is not dependent on access to the original repository.

Semantic Model for Reverse Engineered Systems

In addition to migrating the system files and repository, you need to create a new semantic model for any system that uses reverse engineering.

To create a semantic model for a migrated system, you reparse the original system's reverse engineering source code files, using the StP Reverse Engineering tool (see "Reparsing Source Code Files for Reverse Engineering" on page 2-14).

Who Can Migrate StP Systems

To migrate StP systems, you must be one of the following:

- An StP administrator
- The owner of the systems to be migrated
- A user with read permission on an StP system that is to be migrated (but only if writing to a new project directory; see "Overwriting or Retaining the Source System" on page 1-5)

Backing Up Source Files

Before running the StP Migration Wizard, be sure to back up all the project / system directories and system repositories to be migrated.

For additional information, see the *StP Administration Guid*e.

Migration Options

The StP Migration Wizard allows you to choose:

- Whether to overwrite or retain the source StP system
- The type of database for the migrated system

Overwriting or Retaining the Source System

The migration procedure allows you to either:

- Overwrite your existing systems with the migrated systems (“in place” migration)
- Retain the existing systems in their current location and place the migrated systems in a new project directory

Retaining the existing systems ensures the existence of working production systems during the migration process. Once migration is complete, the previous version’s system files and repositories can be removed or archived.

Choosing the Database Type

Depending on the migration options you choose, each system repository is converted to one of the following database types:

- Sybase
- Microsoft Jet

The Sybase database type is compatible with Microsoft Jet 4, Sybase SQL Server versions 11.0.x and 12.0 and Sybase Adaptive Server Enterprise (Sybase ASE) 11.5.1 and 12.0. Sybase ASE 12.0 is recommended for StP to work properly.

The Microsoft Jet database engine is included with Windows NT 4.0.

Migrations that do not overwrite the source system(s) offer a choice of database type—Sybase or Microsoft Jet—and, for Sybase-managed systems, a choice of Sybase server. All “in place” migrations automatically retain the Sybase database type and existing Sybase server.

If you intend to use Microsoft Jet as the repository manager for a migrated system, you must place the migrated system in a different directory from the existing Sybase-managed system.

System and Software Requirements

Before running the StP Migration Wizard, be sure that:

- Required software is installed on the appropriate machine
- Adequate disk space is available on the target device
- Source files and target StP project directory are accessible to the PC running StP.

Required Software

The following software must be installed before migrating your system files and repositories to StP:

- StP, local StP customization files, if any, and the StP license manager must be installed on the PC from which you are performing the migration (see *Installing StP for NT* for details).
- One of the following repository managers must be installed on your PC or on a PC-accessible network drive:
  - Sybase SQL Server versions 11.0 and 12.0 (12.0 is recommended)
  - Sybase ASE 11.1 and 12.0 (12.0 is recommended)
  - Microsoft Jet (automatically installed with Windows NT 4.0)

Required Disk Space

The amount of disk space required for the migration depends on:

- The size of the existing system(s)
- Whether or not the migration overwrites the existing StP system(s)
- Increased repository space requirement for StP.

There must be adequate disk space on the target device to hold all of the target system's ASCII files, temporary backup copies of the source system's ASCII files (if overwriting the source system), and the StP repository.

If you do not have enough space, you may get an error during migration stating that the repository or the repository log is full. The ToolInfo variables *syscreate_size* and *syscreate_log_size* control the size of the repository and the repository log, respectively. For information on these and on other ToolInfo variables, refer to the ToolInfo appendix of the *StP Administration Guide.*

Systems migrated from older versions of StP may require larger repositories to accommodate the migrated data. In some extreme circumstances the increase has been up to 100%. To ensure a successful migration, you should prepare for the largest increase possible. This applies only to migrations where Sybase is the target database. MS Jet databases expand automatically as more space is needed (up to the amount of available disk space).

Table 1 summarizes migration disk space requirements.

Table 1: Disk Space Required for Migrated System(s)

Files	Overwriting Source System(s)	Retaining Both Source and Target Systems
StP system ASCII files	Twice the space occupied by the source system ASCII files, to hold the new system files and temporary backup copies of the originals	Same amount of space occupied by the source system ASCII files
StP repository	Up to 100% more disk space than the source system repository	

Note: Temporary files are removed when the migration is complete.

Source System and Target Directory Accessibility

StP source systems and the target project directory must reside on one of the following:

- The same PC as the StP installation
- A drive on a PC or UNIX machine mapped to the PC with the StP installation

Depending on the available network services, this may require mapping one or more network drives, or copying files manually or through FTP.

Required Information

Make sure you have the following information available when you run the StP Migration Wizard:

- Source StP project directory and system name(s)
- Source system repository password (if it is not set in an environment or ToolInfo variable)
- Target StP project directory (if different from source directory)
- Database type for the target StP system repositories (Sybase or Microsoft Jet; not required for “in place” migrations)
- Sybase server for the target StP systems (for target systems with Sybase database types only; not required for “in place” migrations)

2 Migrating StP Systems

This section explains how to migrate existing StP systems to the current StP release.

Before continuing with this section, read Chapter 1, “Before Starting Migration,” to understand the migration process and requirements.

This section includes:

Migrating Customizations and Enhancements

Customizations and enhancements to StP systems should be tested with StP before system migration.

If your existing system includes customizations or enhancements, contact your Aonix AE (Applications Engineer) for assistance before migrating to StP.

User customizations and enhancements, if present, are located in *<old_stp_folder> \ templates*. User customizations are located in the *user* subdirectory.

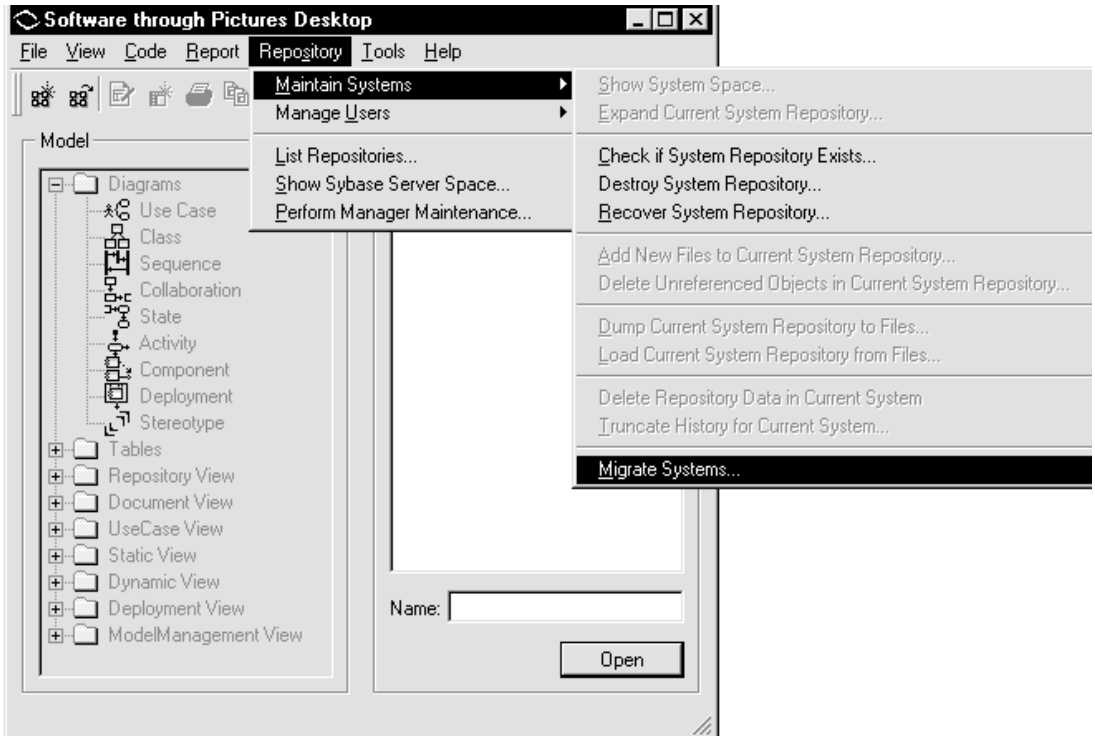
Migrating Existing Systems to StP

To migrate existing systems to StP:

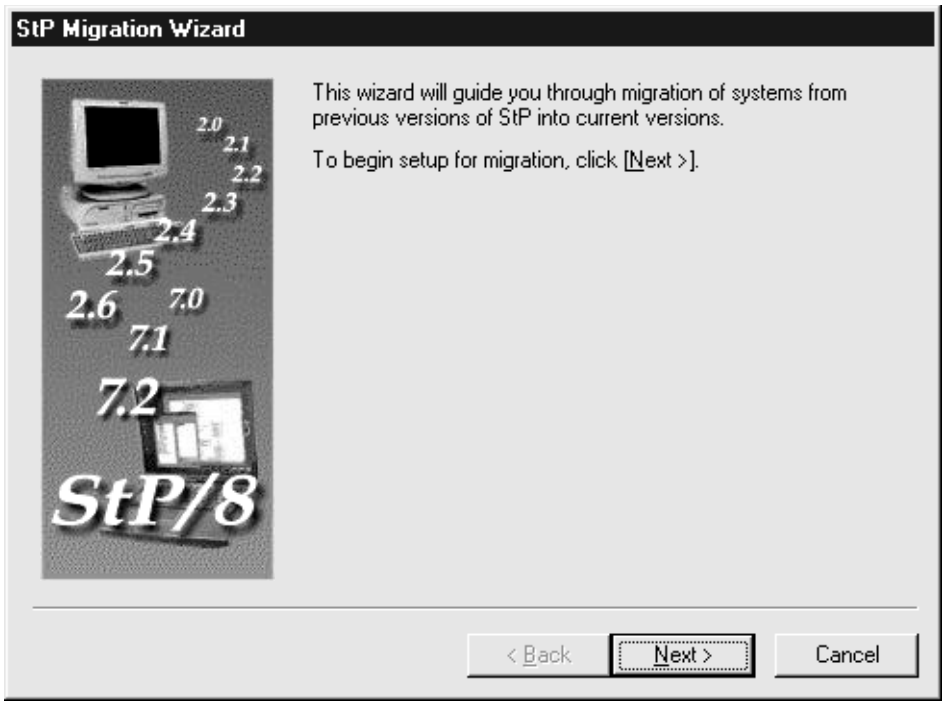
1. Verify that you have met all the requirements described in “System and Software Requirements” on page 1-6 and “Required Information” on page 1-9.
2. Open the StP Desktop.

   For information on using the StP Desktop, refer to *Fundamentals of StP*.

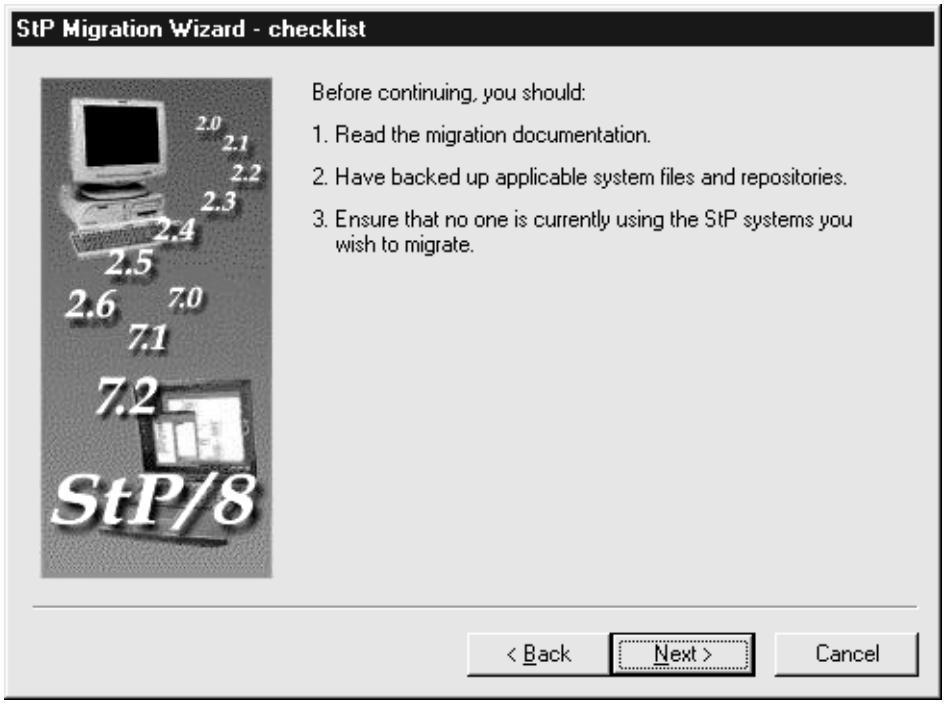
3. From the **Repository** menu, choose **Maintain Systems > Migrate Systems**.



The **StP Migration Wizard** screen appears



4. Click Next.
   The **checklist** wizard screen appears.

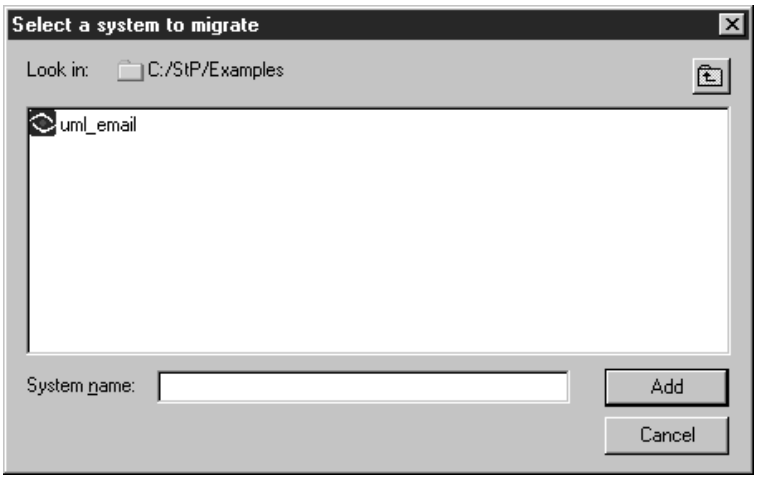


5. Complete each item on the checklist before continuing then click **Next**.

   The **original system(s)** wizard screen appears.

6. Click the **Add** button.

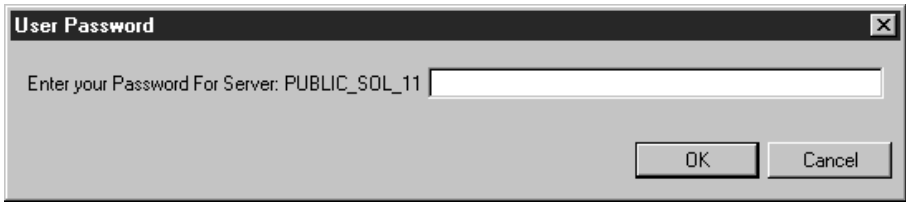
   The **Select a system to migrate** dialog box appears.



7. Navigate to the appropriate project, select the system to migrate, and click **Add**.

   The migration wizard checks for the existence of the system's repository.

   If the repository is found, and the Sybase password is not set in an environment or ToolInfo variable, a dialog box, similar to the following, appears asking for the password for the source Sybase server.



8. If prompted, enter the password and click **OK**.

The system is added to the **original system(s)** wizard screen.

9. To migrate multiple systems within a single project, click **Add** again and repeat the steps to choose additional systems.

   Note: The Migration Wizard only migrates systems from a single project. If you have multiple projects, you must run the Migration Wizard separately for each project.

10. When you have added all the systems you want to migrate from a single project, click **Next**.

The **overwrite originals?** wizard screen appears.

For systems listed in the **original system(s)** wizard screen, you have the option to migrate the systems in place or to a new location:

- If you migrate systems in place, temporary backup files are created and the original systems are overwritten, ultimately conserving disk space (consider this option carefully).
- If you migrate systems as new, additional disk space is required but you preserve a copy of each original system.

If you choose **Yes**, go to step Step 14 on page 2-12.

If you choose **No**, click **Next**.

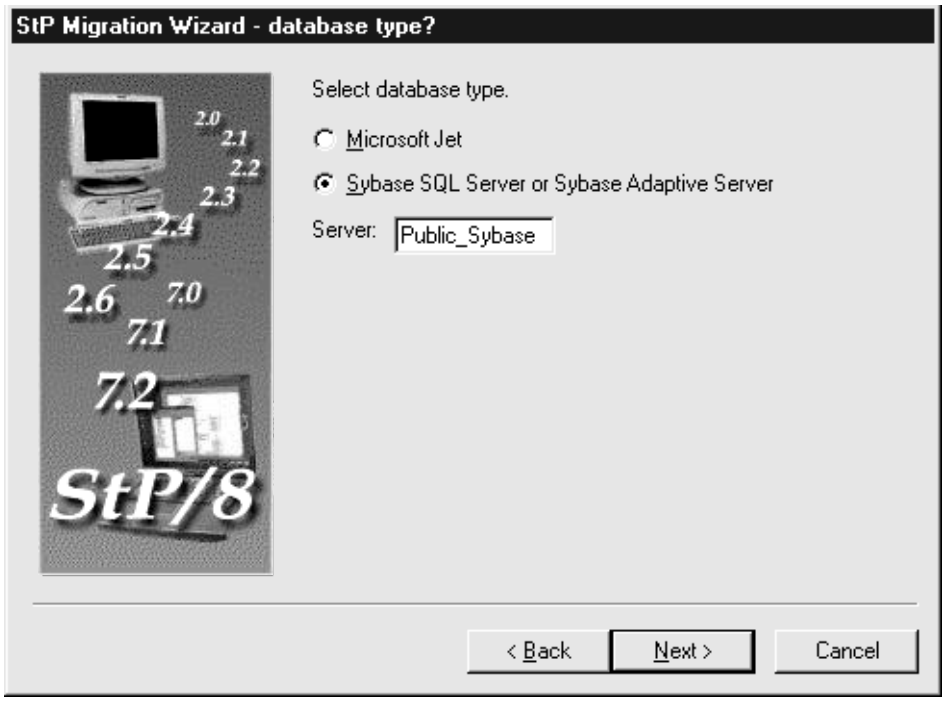
The **target directory** wizard screen appears.

11. Enter the target project directory. If the folder name doesn't exist, StP automatically creates one.

    Alternatively, click **Browse** and select a directory.

12. Click **Next**.

    The **database type?** wizard screen appears.

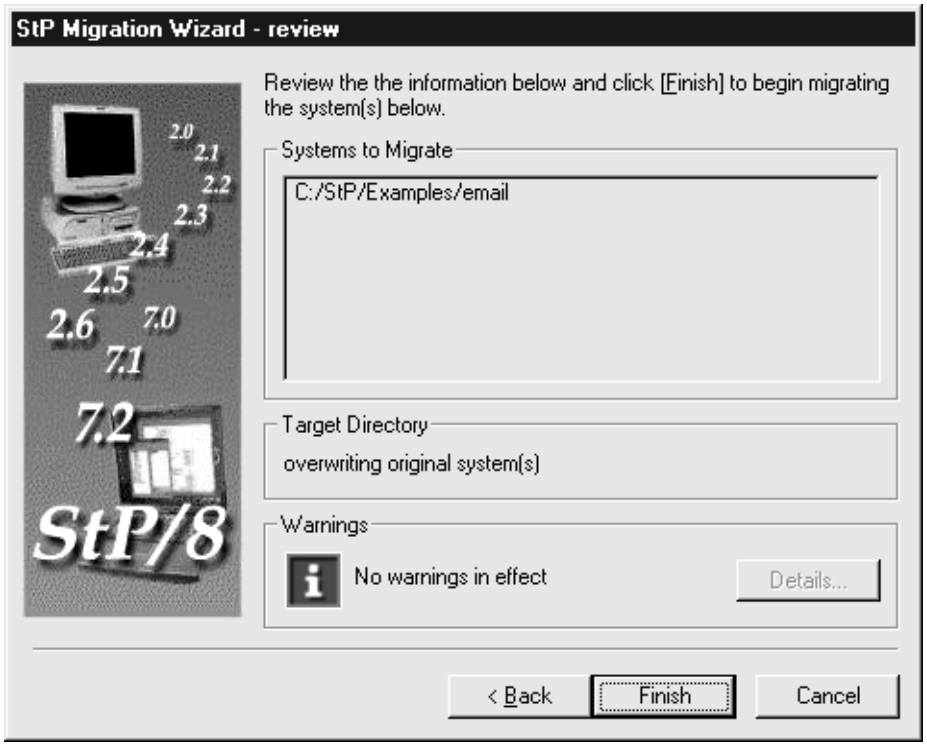


13. Choose the appropriate database.

    If you choose **Sybase SQL Server or Sybase Adaptive Server**, choose the target Sybase server name from the pull-down list.

14. Click **Next**.

    The **review** wizard screen appears.

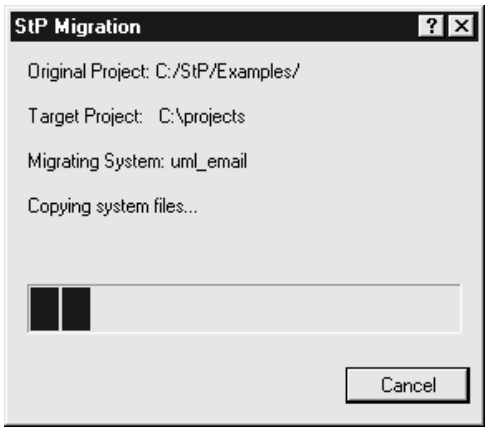


15. Review the information displayed on the wizard screen.

    If warnings are in effect, click **Details** to see an explanation of the warnings. Address the warnings if necessary.

16. Click **Finish** to migrate the listed systems.

    An **StP Migration** dialog box appears displaying the status of the current migration.



    Note: If you need to stop the migration process after it begins, click **Cancel** on the StP Migration status dialog box. If you are migrating in place, consider this option very carefully. If you cancel an in-place migration, the StP system repository may be permanently changed. Consequently, you should rebuild the source system repository before attempting to migrate the same system(s) again (see the StP *Administration Guide*.

    If you are migrating as new, and you cancel the migration, the original StP system is unchanged.

17. After the migration is complete, click **View Log** to view the log file.

    For an example of the log file, refer to “Sample Migration Log File” on page A-1.

18. Click **Close** to exit the migration.

Reparsing Source Code Files for Reverse Engineering

If you use Reverse Engineering in StP/UML, you need to reparse the source code files. This migrates the semantic model database to StP.

To reparse the source code files for an StP system:

1. From the Code menu on the StP Desktop, select **Reverse Engineering > Parse Source Code**.

   The Parse Source Code dialog box appears.
2. Navigate to the appropriate folder containing StP source code files.
3. Move the appropriate source code files into the Files to Parse pane.
4. Set options in the dialog box (optional).

   For a description of the Parse Source Code dialog box, refer to *Generating and Reengineering Code*.
5. Click **OK** or **Apply**.
6. If you have an existing model for the source code, you need to update this model by selecting **Code > Reverse Engineering > Generate Model from Parsed Source Files**. If you have manually modified this model, make sure that you set **Retain User Modifications** in the dialog.

A Reference Information

This chapter includes a sample migration log and common migration error messages.

Sample Migration Log File

To view a log file, click **View Log** on the StP Migration Status dialog box. The following log file is an example of migrating an StP Core 2.x system to Release 8:

In the example below, the system is migrated as new (no overwriting) using the Windows NT version of StP on a Sybase server, from the mapped network drive *J:*, which represents shared device "StP" on a machine running Solaris, to local drive *C:*.

Note: '...' indicates that some messages were deleted for inclusion in this document.

```
Message  : Starting Migrating system J:\test\
Message  : Starting copy from 'J:\test\' to 'c:\test\'.
Message  : Starting copy from 'J:\test\ant_files' to 'c:\test\ant_files'.
Message  : Copied 'a10.ant'.
Message  : Copied 'a11.ant'.
...
Message  : Starting copy from 'J:\test\ate_files' to 'c:\test\ate_files'.
Message  : Starting copy from 'J:\test\bach_files' to 'c:\test\bach_files'.
...
Message  : Starting copy from 'J:\test\src_files' to 'c:\test\src_files'.
Message  : Copied 'open_dialog.cpp'.
Message  : Copied 'open_dialog.h'.
```

```
...
Message  : Starting copy from 'J:\test\uclassd_files' to
'c:\test\uclassd_files'.
Message  : Copied 'class_diag.uclassd'.
Message  : Copied 'open_dialog.uclasst'.
Message  : Copied 'save_dialog.uclasst'.
...
Message  : Starting copy from 'J:\test\ucollaborationd_files' to
'c:\test\ucollaborationd_files'.
Message  : Copied 'sq.ucollaborationd'.
...
Message  : Starting copy from 'J:\test\ustated_files' to
'c:\test\ustated_files'.
Message  : Copied 'state.ustated'.
Message  : Starting copy from 'J:\test\usequenced_files' to
'c:\test\usequenced_files'.
Message  : Copied 'sq.usequenced'.
...
Message  : Starting copy from 'J:\test\uusecased_files' to
'c:\test\uusecased_files'.
Message  : Copied 'uc_diag_I.uusecased'.

Message  : Skipping '.sysbusy'.
Message  : Copied '.sys_id_file'.
Message  : Copied '.sys_file_mode'.
Message  : Copied '.sp_2.4.2'.
Message  : Skipping '.repinfo'.
Message  : Copied '.rename_labels_log'.
Message  : System directory c:\test\ already exists.
Message  : Creating procedures...
Message  : StP-UTILITY

Message  : > env update
Message  : > lock enable -d rusev@DD_PC
Message  : Locking enabled.
Message  : System directory c:\test\filter_files already exists.
Message  : System creation succeeded.

Message  : Added user Chris to group writers in system test
Message  : Added user dd to group writers in system test
Message  : System test has Sybase repository test.
Message  : Enabling locking
Message  : StP-UTILITY

Message  : > lock enable -d rusev@DD_PC
```

```
Message  : Locking enabled.
Message  : System Clean Repository succeeded.
Message  : Updating system directories
Message  : StP-UTILITY
Message  : > env update

Message  : Loading file objects into repository
Message  : StP-UTILITY

Message  : > force on

Message  : > undef all

Message  : Object Annotation File file ‘a10’ inserted with object identifier
100
Message  : Object Annotation File file ‘a11’ inserted with object identifier
102
...
Message  : UML State Diagram file ‘state’ inserted with object identifier 172
...
Message  : Mapping files to the repository
Message  : Updating file revision numbers in repository.
Message  : StP-UTILITY

Message  : > vcc pdb

Message  : Checking file permissions.
Message  : Performing batch update on <n> files.
Message  : Updating a10.ant.
Message  : Updating a11.ant.
...
Message  : Updating class_diag.uclassd.
Message  : Performing batch update on 5 files.
Message  : Updating open_dialog.uclasst.
Message  : Updating save_dialog.uclasst.
...
Message  : System update succeeded.
Message  : System rebuild repository succeeded.
Message  : Updating system directories
Message  : StP-UTILITY

Message  : > env update
Message  : Loading file objects into repository
Message  : StP-UTILITY
Message  : > force on
```

```
Message  : > undef all

Message  : Mapping files to the repository
Message  : Updating file revision numbers in repository.
Message  : StP-UTILITY

Message  : > vcc pdb
Message  : Checking file permissions.
Message  : Updating class_diag.uclassd.

Message  : File is up to date.
Message  : Updating sq.usequenced.
Message  : Updating sq.ucollaborationd.
Message  : File is up to date.
Message  : System update succeeded.
Message  : Completed: Migrating system J:\test\
Message  : Migrating system J:\test\ completed, status 0
```

MError Messages

This section provides a description and recommended action for several common error messages that may occur during a migration.

Message: system busy; administration in progress

Problem: The migration failed due to repository operation errors. This is indicated by the *.sysbusy* file remaining in the root directory of the source system. Migration cannot proceed.

Recommended Action: Remove the *.sysbusy* file.

Message 10005: Unable to locate server in sybase interfaces file

Problem: The server specified in the *.repinfo* for a system to be migrated is not reachable.

Recommended Action: Configure Sybase on the target platform to find the server.

Message: missing .repinfo - cannot overwrite

Problem: The source system does not have a managed repository, such as Sybase or MS Jet. This is indicated by a missing *.repinfo* file. All systems migrated in place must have a managed repository.

Recommended Action: Either rebuild the source system repository prior to migration, or instead of overwriting, specify a target project directory, database type and (if applicable) database server.

Message: cannot create repository lock file

Problem: A repository lock file (*.sysbusy*) cannot be created in the source system directory. Most likely the system directory does not grant write permission to the current user.

Recommended Action: Change permission settings on the source system directory, or perform the migration as a user who is allowed write access in that directory.

Message: failure copying {filename}

Problem: If you are migrating from UNIX to Windows NT, and you have filenames that differ only by uppercase and lowercase characters, this message may indicate a naming conflict. UNIX filenames are case-sensitive; Windows NT filenames are case-insensitive.

For example, if you have three diagrams, *case*, *CASE*, and *Case*, one diagram is copied successfully, such as *case*, but the other two result in error messages:

```
Message : Copied 'case.uclassd'.
Message : Filesystem naming clash on 'CASE.uclassd'.
Message : Failed to copy 'CASE.uclassd'.
Message : Filesystem naming clash on 'Case.uclassd'.
Message : Failed to copy 'Case.uclassd'.
Message : failure copying
X:/projects-2.6/Migration/uclassd_files/CASE.uclassd
```

```
Message : failure copying
X:/projects-2.6/Migration/uclassd_files/Case.uclassd
```

Recommended Action: Using the earlier version of StP, rename diagrams or tables to eliminate the case-insensitive namespace collision, and then migrate the system.

Alternatively, rename the diagram or table files manually, remove the *.repinfo* file, which forces the migration to use the traditional rebuild mechanism (a slower process), and then migrate the system.