# SAS® Strategy Management 5.3
## Migration Guide

# Contents

PART 4  Appendices

# About This Book

## Audience

This guide is intended for SAS Strategy Management 5.3 system administrators.

This book applies to release 5.3 of the SAS Strategy Management. It describes a two-phase migration approach:

1. Upgrading your SAS Strategy Management *X*.4 content and configuration from SAS 9.1.3 to SAS 9.2.

2. Subsequently upgrading your SAS Strategy Management 5.2 content and configuration from SAS 9.2 to SAS 9.3.

If your installation is on SAS 9.1.3, you must complete both phases of the migration.

If your installation is on SAS 9.2 with either SAS Strategy Management, Versions 5.1 or 5.2, you complete only the second phase of the migration.

- If you are performing a migration, begin with this document. Refer also to the documents listed in "References" on page 4.

- If you have a SAS Strategy Management 5.3 installation and you want to migrate (copy) it to another system, see "Part 3. Fully Promoting a SAS Strategy Management 5.3 Installation to Another System."

## Terms and Conventions

This book uses the following terms and conventions:

| Convention | Description |
|---|---|
| data tier | The system on which you install the data-tier software for SAS Strategy Management. |
| metadata tier | The system on which you installed the SAS Metadata Server. Usually, this is the same system as the data tier. |
| middle tier | The system on which you installed the Web application server and on which your Web applications run. |

| Convention | Description |
|---|---|
| single-tier installation | An installation that is done on one system. In that case, the single system functions as both the data tier and the middle tier, and you should follow instructions for both the data tier and the middle tier. |
| multi-tier installation | An installation that is done on more than one system (for example, with a data tier and a middle tier). |
| *SAS-config-dir* | The path to the SAS configuration directory in the operating system; for example, `C:\SAS\Config` (Windows) or `/usr/local/SAS/Config` (UNIX). |
| *MySQL-install-dir* | The path to the MySQL installation directory. For example, `C:\MySQL\bin` (Windows) or `/usr/local/mysql` (UNIX) |
| `!SASROOT` | The SAS root directory.<br><br>In a SAS 9.1.3 installation, `!SASROOT` is typically `C:\Program Files\SAS\SAS 9.1` (Windows) or `/usr/local/sas/SAS_9.1 (UNIX).`<br><br>In a SAS 9.2 installation, `!SASROOT` is typically `C:\Program Files\SAS\SASFoundation\9.2` (Windows) or `/usr/local/SAS/SASFoundation/9.2` (UNIX).<br><br>In a SAS 9.3 installation, `!SASROOT` is typically `C:\Program Files\SAS\SASFoundation\9.3` (Windows) or `/usr/local/SAS/SASFoundation/9.3` (UNIX). |

# Accessibility Information

SAS Migration Utility has a command-line-only interface that is accessible using a keyboard or alternative keyboard assistive technologies. For this release, no accessibility testing was done and no additional features were added to address accessibility. If you have specific questions about the accessibility of SAS products, send them to accessibility@sas.com or call SAS Technical Support.

For information about the accessibility of SAS Strategy Management, see *SAS Strategy Management: User's Guide*.

For information about the accessibility of any of the other products mentioned in this document, see the documentation for that product.

*Part 1*

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# Migrating from SAS 9.1.3 to SAS 9.2

*Chapter 1*
# Overview

## Overview

If SAS Strategy Management is included in the installation plan for your SAS 9.1.3 system, there is no direct migration path to SAS 9.3. You must complete both phases of the migration. This is true even if there are other products in the installation plan which support a direct migration to SAS 9.3 without SAS Strategy Management. Make sure that you read and complete the following migration phases:

1. Migrating from SAS 9.1.3 to SAS 9.2 (Part 1)

2. Migrating from SAS 9.2 to SAS 9.3 (Part 2)

If your current installation is on SAS 9.2 and you want to migrate to SAS 9.3, go to "Part 2. Migrating from SAS 9.2 to SAS 9.3."

## Notes and Restrictions

Be aware of the following notes and restrictions:

- If you are migrating SAS Strategic Performance Management 2.4, see Appendix 1, "Partial Promotion Migration," on page 81 for additional options.

- You cannot use the SAS Migration Utility and the Software Deployment wizard to migrate the SAS Intelligence Platform and then rerun the same software to migrate SAS Strategy Management later.

- You cannot migrate installations that are prior to SAS Strategic Performance Management Version *X*.4.

- If you are installing new products in addition to migrating old ones, first migrate the old installation. Then install the new products.

# References

Refer to the following documents to assist with your installation and migration from SAS 9.1.3 to SAS 9.2:

- *Installation Instructions for Release 5.2 of the SAS Performance Management Solutions*. This book contains instructions for installing third-party software, creating users, and installing and configuring the SAS Performance Management software, including SAS Strategy Management software.

  This book is available at the SAS Strategy Management site: **http:// support.sas.com/documentation/onlinedoc/stm**

  *Note:* This site is password restricted. You can find the user name and password in the pre-installation checklist or by calling Technical Support.

- *SAS Solutions Services: System Administration Guide*. This book contains additional configuration and administration information, as well as a list of changes in SAS Solutions Services. It is available at the sites listed above.

- *SAS Solutions Services: Data Administration Guide*. This book contains information about loading and managing data for the solutions. It is available at the sites listed above.

- For the SAS Intelligence Platform:

  - *SAS Intelligence Platform: 9.1.3 to 9.2 Migration Guide*

  - *SAS Intelligence Platform: Installation and Configuration Guide*

  - *What's New in SAS 9.2 Intelligence Platform*

  These documents (and others) are available at **http://support.sas.com/ 92administration**.

- *What's New in SAS Information Delivery Portal* , available at **http:// support.sas.com/documentation**.

*Chapter 2*
# Preliminary Tasks

## Requirements

This document is written with the following assumptions:

- You have prepared for a standard installation (such as installing required third-party applications, planning which tiers are going to be installed on which systems, and so on).

  See the pre-installation steps in *Installation Instructions for Release 5.2 of the SAS Performance Management Solutions*. For migration-specific information about external accounts, see "Creating Operating System Accounts" on page 6.

- You have prepared a software depot and an installation plan file.

# Creating Operating System Accounts

## Required External Accounts

Create the required external accounts for the primary users in the operating system . The required accounts are listed in the pre-installation checklist. You define external accounts outside the metadata repository (for example, in the operating system).

When you are installing software and migrating from SAS 9.1.3, you should use the new SAS 9.2 internal accounts.

The following table summarizes the required external accounts and the differences between external accounts in SAS 9.1.3 and SAS 9.2.

***Table 2.1*** *Required External User Accounts*

| External Account (SAS 9.1.3) | External Account (SAS 9.2) | Example (SAS 9.2) |
| --- | --- | --- |
| SAS Installer | SAS Installer | *domain*\installer-ID |
| SAS General Server User | SAS Spawned Servers account | *domain*\sassrv |
| SAS Demo User | SAS First User | *domain*\sasdemo<br><br>*Note:* The sasdemo account is optional. If you include this identity, it must refer to an external account. |
| not applicable | Solutions Host User | *domain*\sassln |

*Note:* The *domain* variable is not used for UNIX accounts.

For more information about the account that you must use when you are installing software and performing a migration, see .

## Optional External Accounts

The following external accounts are required only if you do not use the new SAS 9.2 external accounts:

***Table 2.2*** *Optional External User Accounts*

| External Account (SAS 9.1.3) | External Account (SAS 9.2) | Example (SAS 9.2) |
| --- | --- | --- |
| SAS Administrator | SAS Administrator | *domain*\sasadm |
| SAS Trusted User | SAS Trusted User | *domain*\sastrust |
| Solutions Role Administrator | Solutions Role Administrator | *domain*\slnadm |

*Note:* The *domain* variable is not used for UNIX accounts.

### The SAS Installer Account

The SAS Installer account must be the same account that was used to install SAS 9.1.3. The account must have a corresponding metadata identity, with membership in the Administrators group and in the MySQL Users group.

In Windows environments, this user must be a member of the Administrators group in the operating system.

In UNIX environments, this user's profile must be the same as the SAS 9.1.3 profile, and must include the environment variables for MySQL. The following example is for AIX:

```
# Path to the libdir in your mysql install
MYSQL_LIBDIR=/usr/local/mysql/lib
export MYSQL_LIBDIR

# Path to directory to hold shared library for SAS Access to MySQL
MYSQL_CLIENT_DIR=/usr/local/SAS/libmysql
export MYSQL_CLIENT_DIR

# Set or add to the shared library load path
LIBPATH=$LIBPATH:$MYSQL_CLIENT_DIR
Or
LIBPATH=/usr/lib/:/lib:$MYSQL_CLIENT_DIR
export LIBPATH

# Add mysql/bin to the PATH environment variable
PATH=$PATH:/usr/local/mysql/bin
export PATH
```

*Note:* In UNIX environments, verify that the link-editor for object files, ld, is in the SAS Installer's path.

### The Sasspusr Account Not Needed

*X*.4 installations required an additional user account, domain\sasspusr, for access to the stored process server via the SPAuth domain. In migrated systems, this user account is no longer required. For post-migration instructions, see "Remove References to sasspusr and SPAuth" on page 25.

# Performing Checks Before You Run the SAS Migration Utility

### Overview

On a single-tier system, perform all the pre-migration checks that are listed in this section. On a multi-tier system, perform all the pre-migration checks on the specified systems.

### (Data Tier) Check the Required Hot Fix Level

Before you migrate from the SAS 9.1.3 environment, complete the following checks:

- Check that the metadata server version is 9.1.3SP4. (In an interactive SAS session, select **Help** ⇨ **About**.)

- Check that hot fix E9BC59 has been applied by confirming the existence of the file `!SASROOT\core\sasinst\hotfix\e9bc59wn.aud`.

- Make sure that you followed the post-installation instructions when you applied hot fix E9BC59.

  *CAUTION:*

  **Be sure to apply hot fix E9BC59 before you perform the migration.** If you already performed the migration, you must delete the configuration directories and rerun the configuration pass of SAS Deployment Wizard. If you applied the hot fix, but you are uncertain whether you followed the post-installation steps, follow them now.

If the hot fix has not been applied, download and install the hot fix. Download the appropriate hot fix for your operating system from the following Web address: `http://ftp.sas.com/techsup/download/hotfix/e9_sbcs_prod_list.html#e9bc59`.

The Readme file includes the post-installation steps.

### (Data Tier) Update the Metadata for SAS Data Integration Studio

*CAUTION:*

**Be sure to make this update before you perform the migration.** Otherwise, you must delete the configuration directories and rerun the configuration pass of SAS Deployment Wizard.

Before you perform a migration, update the metadata for SAS Data Integration Studio on the *X*.4 data tier:

1. Review the following SAS Note:

   `http://support.sas.com/kb/37/686.html`

2. Download the JAR file and follow the SAS Note instructions.

### (Data Tier) Run the Diagnostic Tool

The diagnostic tool ensures that the environment is ready for migration. It also gathers information about the site's stageDDS, DDS, and SASSDM data models and compares them to the corresponding SAS data models. For a successful migration, there must be no critical differences between a site's data model and the SAS data model. After you run the diagnostic tool, correct any critical differences before you continue the migration.

On the *X*.4 system, run the diagnostic tool from SAS Data Integration Studio. Complete the following steps:

1. In SAS Data Integration Studio, log on to the data tier as a power user (not the unrestricted user). Select the Solutions repository as the default.

2. Click the **Inventory** tab.

3. In the Solutions repository, right-click **Jobs** and select **Import**. Select **SAS_HOME \SASSolutionsServices\1.4\DataTier\Diagnostics\DataModels \chk_dataModels_Job.spk** as the package to import.

   *Note:* Substitute **1.4.1** as the version number if necessary.

4. Open the chk_dataModels job.

5. Open the properties for the chk_dataModels transformation.

6. Click the **Options** tab and set the following options:

   • **Directory (Input)**: Directory where the SAS dictionary tables are stored, with names such as dictionary_14.sas7bdat or dictionary_13.sas7bdat. The following values are the default directories:

   | | |
   |---|---|
   | Windows | `..\Program Files\SAS\SASSolutionsServices` `\1.4\DataTier\Diagnostics\DataModels` |
   | UNIX | `../SAS/SASSolutionsServices/1.4/DataTier/` `Diagnostics/DataModels` |

   • **Directory (Output)**: Directory where the HTML output reports are stored. The following values are the default directories:

   | | |
   |---|---|
   | Windows | `..\SAS\SASSolutionsConfig\Lev1\Data` |
   | UNIX | `./SAS/SASSolutionsConfig/Lev1/Data` |

   Keep the default values for the remaining options.

7. Execute the chk_dataModels job.

8. Open the log and check the output files that are produced by the chk_dataModels job. The files are listed at the bottom of the log. Here is an example:

   ```
   NOTE: Check the following html documents:
   - C:\SAS\SASSolutionsConfig\Lev1\Data/diff_site_DDS_version
   1.4_09AUG10111604.html
   - C:\SAS\SASSolutionsConfig\Lev1\Data/diff_site_STAGEDDS_version
   1.4_09AUG10111604.html
   - C:\SAS\SASSolutionsConfig\Lev1\Data/diff_site_SASSDM_version
   1.4_09AUG10111604.html
   ```

   Only tables that differ from the standard model are listed in the report output. If you see a column in the report whose data type and length match the standard model, then only the label has been changed, and you can ignore the difference. If a column is reported as missing in the site model, the case of the column name in the site model is probably different than the case of column name in the SAS model. You can safely ignore case differences in column names. Investigate and correct any other differences to ensure a valid migrated model.

   If the HTML files are empty, no differences were found.

# Installing the SAS Migration Utility

### *Overview*

The SAS Migration Utility is a tool that packages content from the SAS 9.1.3 installation so that it can be migrated to a new SAS 9.2 installation. For more information about the SAS Migration Utility, see the *SAS Intelligence Platform: 9.1.3 to 9.2 Migration Guide* (see "References" on page 4).

### *Install on a Windows System*

To install the SAS Migration Utility on Windows:

1. In the directory where you downloaded the software depot, find the directory named **utilities\smu**.

   This directory contains the smu.exe file, the smu.properties.template file, and possibly other files and directories.

2. Copy the contents of the **utilities\smu** directory to a new directory on each of the systems in your SAS 9.1.3 installation. For example, create **C:\Program Files\SAS\SASMigrationUtility\9.1.3** and copy the files there.

### *Install on a UNIX System*

To install the SAS Migration Utility on UNIX, use FTP to transfer the files from the depot to a new directory on each of the systems in your SAS 9.1.3 installation.

# Running the SAS Migration Utility

Before you run the SAS Migration Utility, create a shared directory on the network that is available to all of the systems in the installation. This directory becomes the SAS Migration Utility migration package directory. All SAS Migration Utility output from all systems is stored in this directory.

Then perform the following steps on each system that requires migration. Begin with the system that is running the SAS 9.1.3 Metadata Server:

1. Navigate to the directory to which you copied the contents of the **utilities\smu** depot directory.

2. Copy the smu.properties.template file to smu.properties.

3. Edit the smu.properties file with a text editor.

   The smu.properties file is in the Java properties file format. The following format rules are most important to apply when you are editing the smu.properties file:

   • Lines that begin with the # character are comments and have no effect.

- Backslash characters (\\) must be doubled. For example, `C:\\Program Files\` `\SAS`.

4. Review the entire smu.properties file and change property settings if you need to.

   The comments in the file explain each property that you must set. The following table describes some specific properties:

| Property | Description |
|---|---|
| SMU.Output.Dir | This property contains the path to the SAS Migration Utility migration package directory. |
| | Enter the path to the shared directory that you created in step 1. |
| SMU.password | The smu.properties comments state that the SMU.password property value must be encoded in the {sas001} format using the PWENCODE procedure. However, you can also specify a plain-text password. If you choose to specify a plain-text password, for security purposes, erase this password immediately after you run the SAS Migration Utility. |
| SMU.SASROOT | For systems on which SAS is installed, enter the path to the **!SASROOT** directory. The following paths are two examples: |
| | `SMU.SASROOT=C:\\Program Files\\SAS\\SAS 9.1` |
| | `SMU.SASROOT=/usr/local/SAS/SAS_9.1` |
| | On a middle-tier system, comment out this property. |
| SMU.spmmidtier.scorecard. ear.dir | This property must be set only for sites with SAS Solutions Services 1.4.1 and IBM WebSphere 6 on AIX: |
| | Path to the deployed EAR file for SAS Strategic Performance Management: **WebSphere-install-dir/ profiles/profile-name/installedApps/ network-cell-name/SAS Strategic Performance Management.ear** |
| | **WebSphere-install-dir** is the path to the IBM WebSphere root installation directory (such as **/usr/IBM/ WebSphere/AppServer**). |
| | **profile-name** is the name of the application server profile (such as **AppSrv01**). |
| | **network_cell_name** is the cell name of the deployment manager node. |

5. (For Windows installations only) Open a command window in the directory in which you installed the SAS Migration Utility and submit one of the following commands:

| Systems on which the DAV server is running | `smu.exe -s -a -davtier -properties` `"full_path_to_SMU_install_directory` `\smu.properties"` |
|---|---|
| *Note:* Either Xythos or Apache. | |

| | |
|---|---|
| Other systems | `smu.exe -s -a -properties`<br>`"`*`full_path_to_SMU_install_directory`*<br>`\smu.properties"` |

*Note:* In these commands, quotation marks are required around *full_path_to_SMU_install_directory*\smu.properties only if there is a space in the pathname.

*Note:* You must specify the full path to the smu.properties file in the -PROPERTIES option, even though the smu.properties file is in the current directory (the same directory as the smu.exe file). The smu.exe file is actually a self-extracting archive. It extracts the complete program into a separate, temporary directory and runs the program from there.

After a few seconds, a second command window appears with the SAS Migration Utility console output.

6. (For UNIX installations only) Submit one of the following commands (line breaks added for readability):

| | |
|---|---|
| Systems on which the DAV server is running<br><br>*Note:* Either Xythos or Apache. | `./smu.sh -- -davtier -outputdir /usr/local/`<br>`SAS/smupackage-properties /usr/local/`<br>`SAS/smu/smu.properties` |
| Other systems | `./smu.sh -- -outputdir /usr/local/`<br>`SAS/smupackage-properties /usr/local/`<br>`SAS/smu/smu.properties` |

*Note:* The output directory must not be the same as the SAS Migration Utility installation directory.

7. Wait for the SAS Migration Utility to finish running.

Check the output as described in "Check the SAS Migration Utility Migration Package" on page 12. For additional troubleshooting help, see "Errors Running the SAS Migration Utility" on page 87.

# Check the SAS Migration Utility Migration Package

In the previous section, you set the SMU.Output.Dir property in the smu.properties file to point to the SAS Migration Utility migration package directory (the directory under which all migrated content is stored).

A subdirectory in the SAS Migration Utility migration package directory is named after each system on which you run SAS Migration Utility. Inside this subdirectory are other subdirectories. Each subdirectory contains content that was backed up from a particular SAS product.

*Note:* Some subdirectories might be empty.

To check the SAS Migration Utility migration package:

1. After smu.exe completes, check the final few lines of output in the command window to determine whether the SAS Migration Utility produced error messages.

2. If the SAS Migration Utility produced error messages, complete the following steps:

   a. View the migrate.log file in the system's subdirectory inside the SAS Migration Utility migration package directory to determine the cause of the error.

   b. Look for and correct any remaining errors. If you make corrections, rerun the SAS Migration Utility and include the **-replace** option.

3. Review the migration status messages for the products that you are migrating. Complete the following steps:

   a. In the subdirectory named AnalysisReport, open the FullReport.html file and review the messages.

      There are migration status messages for each product. This report indicates whether you must upgrade any products or install patches before you can complete the migration.

   b. Run the SAS Migration Utility after you install any patches.

   c. Look for and correct any remaining error messages before you continue.

   d. Examine all warning messages.

      *Note:* Warning messages are for informational purposes.

      *Note:* Warning messages are expected on most systems. For example, a warning message appears in the Analysis Report for each data directory that is found in metadata that exists outside of the SAS Configuration directory. If these are needed in the SAS 9.2 installation, migrate them manually.

4. To verify that data has been backed up correctly, complete the following additional checks:

   *Note:* On the middle-tier system, ignore these steps.

   a. In the **metadatasrv** subdirectory, verify the existence of these subdirectories: **MetadataRepositories** and **rposmgr**.

   b. In the **MetadataRepositories** subdirectory, verify that one subdirectory exists for each metadata repository.

   c. In the **WFS** subdirectory, verify the existence of a subdirectory named **Area1**.

      The **Area1** subdirectory should contain the WFSDump.xml file as well as several files with names that begin with X and end with a number.

   d. In the **soldatatier** subdirectory, verify the existence of a **SQL** subdirectory, which contains a file named sassdm.sql.

      *Note:* This file might be large (megabytes or hundreds of megabytes.)

   e. In the **spmdatatier** subdirectory, verify the existence of a **SQL** subdirectory, which contains a file named spm.sql.

## Repeat for Each System

Repeat the steps in and for every other system that is in this installation (other than client systems).

*Note:* The FullReport.html file displays a failure (✗) for the SAS Metadata Server Product if you run the smu.exe file on any tier other than the metadata server system.

## (Data Tier) Modify Data Set Names If Necessary

If the physical names of any custom data sets in the STAGEDDS library meet certain criteria, you must rename the data sets in the SAS Migration Utility package before you install the 5.2 software. Complete the following steps:

1. Navigate to the **`path-to-SMU-package\data-tier-name\levconfig \levdata\Data`** directory.

   - **`path-to-SMU-package`** is the directory in which the SAS Migration Utility package was created.

   - **`data-tier-name`** is the name of the data-tier system.

2. Open the ZIP file in that directory and make the following changes:

   *Note:* These changes apply regardless of whether the prefix is in uppercase, lowercase, or mixed case.

   a. If you find any data sets with a name that begins with STAGE_, rename each such data set to begin with STG_ (or a similar string).

   b. If you find any data sets with a name that is a single letter, rename each such data set so that it has more than one letter in its name. For example, if a file is named a.sasb7dat, rename it to aa.sasb7dat.

*Chapter 3*
# Single-Tier Installation

## Overview

Read the instructions in this chapter. Then follow the installation steps in the *Installation Instructions for Release 5.2 of the SAS Performance Management Solutions*. (See "References" on page 4.)

*Note:* The installation guide refers to the application server directory as **SASApp**. In a migrated system, this directory is typically named **SASMain**.

For installation and migration on the data tier (the system on which you installed the SAS Solutions Services data-tier software), follow the installation and configuration steps in "3. Perform the Post-Migration Tasks" on page 16.

## 1. Run the SAS Deployment Wizard

Run the SAS Deployment Wizard, making the following selections:

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

- **Perform migration**: When the Migration Information page appears, select **Perform migration**.

  In the **SAS Migration Utility Package Directory** field, type or navigate to the shared directory in which the SAS Migration Utility stored its output.

Refer to the following notes when you are responding to prompts in the SAS Deployment Wizard:

- **Internal accounts**: It is recommended that you select **Use SAS internal accounts when appropriate** on the Deployment Accounts wizard page. See "Creating Operating System Accounts" on page 6.

- **External accounts**: When you are asked for the user name and password of an external account, check the domain name prefix carefully to ensure that it is correct for your site. The domain name prefix from the SAS 9.1.3 installation might still be in use.

  *Note:* MySQL and WebLogic account names are created in MySQL Server and Oracle WebLogic. They are not operating system accounts. Do not add a host name prefix to these account names.

- **Server context**: The SAS Deployment Wizard presents several pages in which you must select the application server context. During migration, the correct application server context might not be selected by default. There is typically a list of server contexts, which consist of the correct new server context as well as all the migrated OLAP server contexts.

  Choose the correct server context for your site. The default application server context for a migrated system is **SASMain**.

  *Note:* This application server context does not apply to the metadata server.

- When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. The other database types that are listed, including SAS Table Server, are not supported for migration.

When the Deployment Summary page appears, the deployment wizard has finished collecting installation and configuration input. This is your last opportunity to go back and change any information that you have provided in previous pages before the wizard begins writing to your system. Before you proceed with the migration, make sure that the input that you have provided to the deployment wizard is correct.

***CAUTION:***
**Incorrect user input such as user ID and passwords causes all or portions of your migration to fail.**

For detailed information, refer to the installation guides for the SAS Intelligence Platform. (See .)

# 2. Perform the Instructions.html Tasks

Follow the steps in the Instructions.html file.

# 3. Perform the Post-Migration Tasks

Perform the post-migration tasks as described in .

*Chapter 4*
# Multi-Tier Installation

## Overview

For multi-tier installations, read the instructions in this chapter before you install SAS Strategy Management. Then follow the installation steps in the *Installation Instructions for Release 5.2 of the SAS Performance Management Solutions*.

*Note:* The installation guide refers to the application server directory as `SASApp`. In a migrated system, this directory is typically named `SASMain`.

## Separate Metadata Tier Installation

If the data tier and metadata tier are on the same system, go to "Data-Tier Installation on the Target System" on page 18.

Otherwise, complete the following steps:

1. Run the Software Deployment Wizard on the metadata tier first.

   Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

2. When the Migration Information page appears, select **Perform migration**.

3. After you complete the installation and configuration of the metadata tier, go to "Data-Tier Installation on the Target System" on page 18.

# Data-Tier Installation on the Target System

## *Overview*

For installation and migration on the data tier (the system on which you installed the SAS Solutions Services data-tier software), complete the following installation and configuration steps.

## *1. Run the SAS Deployment Wizard*

Run the SAS Deployment Wizard, making the following selections:

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

- **Perform migration**: When the Migration Information page appears, select **Perform migration**.

  In the **SAS Migration Utility Package Directory** field, type or navigate to the shared directory in which the SAS Migration Utility stored its output.

Refer to the following notes when you are responding to prompts in the SAS Deployment Wizard:

- **Internal accounts**: It is recommended that you select **Use SAS internal accounts when appropriate** on the Deployment Accounts wizard page. See "Creating Operating System Accounts" on page 6.

- **External accounts**: When you are asked for the user name and password of an external account, check the domain name prefix carefully to ensure that it is correct for your site. The domain name prefix from the SAS 9.1.3 installation might still be in use.

  *Note:* MySQL and WebLogic account names are created in MySQL Server and Oracle WebLogic. They are not operating system accounts. Do not add a host name prefix to these account names.

- **Server context**: The SAS Deployment Wizard presents several pages in which you must select the application server context. During migration, the correct application server context might not be selected by default. There is typically a list of server contexts, which consist of the correct new server context as well as all the migrated OLAP server contexts.

  Choose the correct server context for your site. The default application server context for a migrated system is **SASMain**.

  *Note:* This application server context does not apply to the metadata server.

- When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. The other database types that are listed, including SAS Table Server, are not supported for migration.

When the Deployment Summary page appears, the deployment wizard has finished collecting installation and configuration input. This is your last opportunity to go back and change any information that you have provided in previous pages before the wizard begins writing to your system. Before you proceed with the migration, make sure that the input that you have provided to the deployment wizard is correct.

> *CAUTION:*
> **Incorrect user input such as user ID and passwords causes all or portions of your migration to fail.**

For detailed information, refer to the installation guides for the SAS Intelligence Platform. (See .)

### 2. Perform the Instructions.html Tasks

Follow the steps in the Instructions.html file.

Next, go to .

# Installation on Additional Tiers

On every other tier (excluding client systems), complete the following steps.

### 1. Run the SAS Deployment Wizard

Run the SAS Deployment Wizard, making the following selections:

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software**.
- **Perform migration**: When the Migration Information page appears, select **Perform migration**.
- **(Middle tier)** When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. The other database types that are listed, including SAS Table Server, are not supported for migration.

### 2. Perform the Instructions.html Tasks

Follow the steps in the Instructions.html file.

# Post-Migration

After you install and configure all the systems (other than client systems), perform the steps in .

*Chapter 5*
# Post-Migration Tasks

## Overview

This chapter contains tasks that must be performed after the installation and migration steps are complete. Some tasks apply only to a particular solution, or only to migrations from 32-bit Windows to 64-bit Windows environments.

Completing the tasks in this chapter requires the following:

- You must have completed the installation, configuration, and migration steps that are outlined in the previous chapters of Part 1.

- You must have access to SAS Management Console in the SAS 9.2 installation.

- You must have access to SAS Data Integration Studio in the SAS 9.2 installation.

  To run a SAS Data Integration Studio job, a user must have the following group and role memberships:

  - Solutions Services: Data Administrator role (or the Data Administrators group)

  - Solutions Users group

  *Note:* Do not connect as the unrestricted user. The unrestricted user cannot start a workspace server session.

## Apply File Permissions

Before you perform any of the post-migration tasks, apply file permissions as described in "Secure Your Installation" in the *SAS Solutions Services: System Administration Guide*. Otherwise, some tasks in this chapter will fail.

In particular, apply the following permissions to the **`SAS-config-dir`** **`\Lev1\SASMain\Data`** directory and its subdirectories:

| | |
|---|---|
| For Windows installations | Grant Full Control to SAS General Server User (sassrv). Grant Read/Write/Modify permission to users who run ETL or SAS jobs to update data in the warehouse. These users should include the Solutions Host User (sassln). |
| For UNIX installations | Permit full access for the sas user ID and the sas user group. |

## Migrate SAS Data Sets from 32-Bit to 64-Bit Microsoft Windows

If you are migrating from 32-bit to 64-bit Microsoft Windows, you might need to use the MIGRATE procedure to convert data sets in SAS libraries directory from 32-bit format to 64-bit format.

Libraries that are located under the **`SAS-config-dir`** directory (including DDS and StageDDS) are automatically converted during migration.

However, after migration is complete, you must manually convert data sets in any SAS libraries that are not located under the **`SAS-config-dir`**. For more information, see the SAS Note at **`http://support.sas.com/kb/37/695.html`**

## (Optional) Modify Conform Library

During migration, the DDS, StageDDS, and ConformedDataMart data directories are copied to a new location that conforms to SAS Performance Management Solutions 5.2

conventions. The DDS and StageDDS data sets are also upgraded to the SAS Performance Management Solutions 5.2 data model.

In SAS Performance Management Solutions 5.2, by default the Conform library points to the same location as the Cross Industry Detail Data Store folder: **`SAS-config-dir`** **`\Lev1\SASMain\Data\SolutionsServices\DDSData`**.

If you do not want to use a separate conform area, skip the rest of this section.

If you want to create a separate conform area, you must modify the Conform LIBNAME statement, and you might need to upgrade its data sets. Follow these steps:

1. Prepend the path for the ConformedDataMart to the Conform LIBNAME statement:

   a. On the **Plug-ins** tab of SAS Management Console, navigate to **Environment Management ⇨ Data Library Manager ⇨ Libraries**.

   b. Right-click **Conform** and open its properties.

   c. On the **Options** tab, add **`SAS-config-dir\Lev1\SASMain\Data`** **`\SolutionsServices\ConformedDataMart`** to the path specification.

      Replace *SAS-config-dir* with the path to your site's configuration directory. If necessary, use the up or down arrows so that this path precedes the path to DDSData.

2. If your site does not need the Conform data from the SAS 9.1.3 installation: Copy the CrossIndustryDDS data sets to the **`SAS-config-dir\Lev1\SASMain\Data`** **`\SolutionsServices\ConformedDataMart`** folder, replacing all the data sets in that folder. Skip step 3.

3. If your site does need the Conform data from the SAS 9.1.3 installation:

   a. Manually upgrade the ConformedDataMart data sets to match the CrossIndustryDDS data model. If a CrossIndustryDDS data set contains one or more columns that are not present in the corresponding ConformedDataMart data set, add those columns to the ConformedDataMart data set.

   b. If the tables are registered in the metadata repository: In SAS Data Integration Studio, navigate to the Conform library. Select the table appropriate table names, right-click, and then select **Update Metadata**.

For more information, see "Appendix 2: The Conform Area" in the *SAS Solutions Services: Data Administration Guide*.

## Migrate Additional Libraries

SAS libraries that were in locations outside the configuration directory were not automatically migrated. For more information, see "Migrating Content Stored Outside of the SAS Configuration Directory" in the *SAS Intelligence Platform: 9.1.3 to 9.2 Migration Guide*.

## Run the post_migration_tasks Job

This job executes a number of post-migration tasks.

1. In SAS Data Integration Studio, connect to the 5.2 metadata tier.

2. Run the post_migration_tasks job.

   This job is located in the **/Products/Cross Industry Detail Data Store/Post Migration Tasks** folder.

## Load Dimension Type Table

After you run the post_migration_tasks job, load the CrossIndustryDDS Dimension Type table, using one of the following jobs:

- the cind_dds_100400_load_dimension_type_table job, which is located in the **/Products/Cross Industry Detail Data Store/5.2 Jobs** folder

  It is recommended that you use this job at a site without custom dimensions.

- the 100400 Load DDS DIMENSION_TYPE Table job, which is located in the **/Products/Cross Industry Detail Data Store/Migrated Jobs/Detail Data Store (DDS)/Reference Table Jobs** folder

  We recommend using this job at a site with custom dimensions.

Before you execute the job, review it to make sure that all source-to-target mappings are correct. Review the mapping in each transformation that is used by the job and propagate or map columns as necessary.

*Note:* If you run the post_migration_tasks job more than once, you must reload the CrossIndustryDDS Dimension Type table each time.

## Update the Conform Folder Permissions

To update the Conform folder permissions:

1. Open SAS Management Console as the unrestricted user (sasadm).

2. On the **Plug-ins** tab, select the **Foundation** repository.

3. Select **Environment Management** ⇨ **User Manager**.

4. Right-click the SAS Administrators group and select **Properties**.

5. On the **Members** tab, add **Solutions Role Administrator** as a member.

6. Save your changes.

7. On the **Folders** tab of SAS Management Console, navigate to the **Products/SAS Solutions Services** folder.

8. Right-click the **Conform** folder and select **Properties**.

9. On the **Authorization** tab, grant the following permissions to the SAS Administrators group:

   - ReadMetadata

   - WriteMetadata

   - WriteMemberMetadata

- CheckinMetadata

- Read

- Administer

Deny the Write, Create, and Delete permissions to the SAS Administrators group.

10. Click **Add**.

11. In the Add Users and Groups window, move the SASUSERS group to the **Selected Identities** list. Click **OK**.

12. Grant SASUSERS ReadMetadata permission and deny all other permissions.

13. Click **OK** to save the new properties.

# Update KPI and Scorecard Permission Assignments to SAS Demo User

To complete the migration for key performance indicator (KPI) or scorecard projects, follow the instructions in SAS Note 37794, available at **http://support.sas.com/kb/37/794.html**. These instructions adjust project, scorecard, template, and element permissions for the SAS Demo User. In *X*.4 the permissions were assigned to SAS Demo User. In SAS 9.2 they are assigned to sasdemo.

*Note:* In SAS 9.2, sasdemo is the user name; SAS Demo User is the display name.

# Remove References to sasspusr and SPAuth

*X*.4 installations required an additional user account, domain\sasspusr, for access to the stored process server via the SPAuth domain. In migrated systems, this user account is no longer required.

To remove references to this authentication domain, complete the following steps:

1. In SAS Management Console, select the User Manager plug-in and open the properties for the Solutions Users group.

2. Click the **Accounts** tab.

3. Delete the entry for sasspusr and save your changes.

4. Select **Environment Management** ⇨ **Server Manager** ⇨ **SASMain** ⇨ **SASMain - Logical Stored Process Server** ⇨ **SASMain - Stored Process Server** and open the **Connection** properties.

5. Click the **Options** tab.

6. From the **Authentication Domain** list, select **DefaultAuth** and save your changes.

7. Make the same change to each of the load balanced (LB) connection definitions.

# Modify Server and Library Names in %SPMEXPSC Macro

Modify the SAS autocall macro %SPMEXPSC as follows:

1. Log on to SAS Management Console as the administrator (sasadm).

2. On the **Plug-ins** tab, navigate to **Environment Management** ⇨ **Server Manager**.

3. Select the server that has the Logical Workspace Server and the Logical Stored Process Server. Note the name of this server (such as SASMain).

4. Navigate to **Data Library Manager** and locate the library whose name ends with **- SPMImapXport**. This library usually contains the GENERICSPMEXPORT table. Note the name of this SAS library (for example, **SASMain - SPMImapXport**).

5. Open the spmexpsc.sas file for editing.

   On Windows, this file is located in the **!SASROOT\scorecard\sasmacro** directory on the data tier.

   *Note:* Before you edit the spmexpsc.sas file, make a backup copy of it.

6. Find the line that contains **infomapSASServer**. It resembles the following code, although the default SASApp value might have a different value):

   ```
   %let infomapSASServer=SASApp;
   ```

   Change the value of the server name to the server name that you observed in SAS Metadata Console. (For the preceding example, you would change **SASApp** to **SASMain**.)

7. Find the line that contains **imapTableLibrary**. It resembles the following code (although the default **SASApp** value might be replaced by something else):

   ```
   %let imapTableLibrary=SASApp - SPMImapXport;
   ```

8. In that line, substitute the name of the library that you observed in SAS Management Console. For the preceding example, you would modify the code as follows:

   ```
   %let imapTableLibrary=SASMain - SPMImapXport;
   ```

9. Save the file.

*Note:* For more information about using the Export to Information Map feature of SAS Strategy Management, see "SAS Strategy Management or KPI Viewer Modifications" in the *SAS Solutions Services: System Administration Guide*.

# Run the update52.sql Script

From a command prompt on the data tier, run the following command, which updates the SPM database in MySQL:

```
cmd> mysql -hSPM-datatier-host -uspm-username -pspm-password spm
  < SASHOME\SASStrategyManagementDataTier\5.2\Config\Deployment\SQL\update52.sql
```

*Note:* A line break was added for readability. You should enter the command on a single
line.

- *SPM-datatier-host* is the host name of the data tier.

- *spm-username* is the name of the MySQL administrative user for the SPM database.
  The default user name is spmdbadm.

- *spm-password* is the password for accessing the SPM database.

- *SASHOME* is the path to the SAS installation directory.

# Migrate SAS Web Report Studio Reports

## *Overview*

In the *X*.4 release of the solutions, SAS Web Report Studio reports might be stored in
more than one repository (for example, the HR repository, the Solutions repository, and
the Performance Management repository). By default, the BIP Tree in each repository
was mapped to the same DAV content location (**/sasdav/wrs**). When the DAV
content is migrated, all the content is stored in a single DAV folder. (The folder that is
selected depends on which repository's **BIP Tree** folder is mapped first during the
migration.)

You can verify the existence of multiple SAS 9.1.3 repositories by searching the
AnalysisReport.html file in your SAS Migration Utility package for a warning similar to
the following:

```
Content URL http://<DAV server>=8300/sasdav/wrs is mapped to by multiple
metadata roots: BIP Tree, BIP Tree, BIP Tree, BIP Tree
```

To repair the reports, you must export the *X*.4 reports and import them into your 5.2
system (replacing the migrated reports), as described in the following sections.
Otherwise, when users try to open a report, they might see a message stating that the
report is not accessible.

*Note:* If your *X*.4 system used a different content mapping for the **/BIP Tree** folder in
each repository, these steps are not necessary.

## *Export the SAS Web Report Studio Reports*

To export the reports from the *X*.4 system, log on to SAS Management Console 9.1 as
the unrestricted user (sasadm). In the BI Manager plug-in, examine the shared reports
folder and the user reports folders in each repository. For each folder that contains SAS
Web Report Studio reports, follow these steps:

1. Navigate to the source directory.

   For shared reports, the source directory is the **/BIP Tree/ReportStudio/
   Shared/Reports** folder.

   For users' personal reports, the source directory is the **/BIP Tree/
   ReportStudio/Users/*username*/Reports** folder.

2. Select all the reports in the **Reports** folder, right-click, and select **Export** from the
   pop-up menu.

3. In the Export wizard, select a destination for the export package:

    a. Click **Browse** to browse to the directory where the package file will be exported.

       Select a directory that is accessible from the 5.2 installation.

    b. Give the file a name that identifies the repository (and user, if these are user reports), so that you can easily select the correct file to import.

    c. Click **Open**.

    d. If you are exporting shared reports, select the **Include access controls** check box if you want to retain permissions that are associated with those reports.

       *Note:* If the access controls are based on an access control template (ACT), make sure the ACT is defined in SAS 9.2 before you import these reports.

       If you are exporting users' personal reports, do not select the **Include access controls** check box.

    e. Click **Next**.

4. Select each of the reports to be migrated.

   Do not select any dependent information maps for export.

5. Click **Next**.

6. Review the Summary and click **Export**.

7. Verify that the export process was successful and click **Finish**.

## Import the Reports into the 5.2 Installation

On the 5.2 system, log on to SAS Management Console 9.2 as the unrestricted user (sasadm). For each reports package that you exported from your *X*.4 system, follow these steps:

1. On the **Folders** tab, navigate to the target folder for the reports.

   If you are importing shared reports, navigate to the **/*repository-name*/BIP Tree/ReportStudio/Shared/Reports** folder (for example, **/HR/BIP Tree/ReportStudio/Shared/Reports**).

   If you are importing reports from a user's personal folder, navigate to the **/Users/*username*/My Folder/*repository-name*/Reports** folder (for example, **/Users/sasdemo/My Folder/HR/Reports**).

   *Note:* You can import the exported reports to a different folder and delete the old migrated reports.

2. Right-click the **Reports** folder and select **Import SAS Package** from the pop-up menu.

3. Complete the Import SAS Package page, as follows:

    a. Click **Browse** and browse to the *X*.4 package file that corresponds to this target folder.

    b. Select the file and click **OK**.

    c. If you saved access controls (for shared reports only), select the **Include access controls** check box.

       For users' personal reports, do not select this check box.

d.  Select the **All objects** radio button (the default), so that existing reports with the same name are overwritten.

e.  Click **Next**.

4.  On the Select Objects to Import page, select the reports to store in this folder and click **Next**.

5.  On the About Metadata Connections page, click **Next**.

6.  On the Information Maps page, click **Browse** for each information map to verify or select the target information map. By default, the correct target information map (in the /**BIP Tree/ReportStudio/Maps** folder) should already be selected. If the target information map is pointing to a different folder, navigate to the **/BIP Tree/ReportStudio/Maps** folder, select the appropriate information map, and click **OK**.

7.  Click **Next**.

8.  Verify the summary and click **Next** to import the reports.

9.  Verify that the import process was successful and click **Finish**.

# SAS BI Dashboard Modifications

## Re-Create Indicator Data Definitions for Dashboards

### Overview
If your migration included dashboards (for SAS BI Dashboard) that use the SAS Strategy Management data provider, you must re-create the indicator data definitions for those dashboards.

### Export the Indicator Data Definitions
To export the indicator data definition (.imx) files from the metadata repository, follow these steps:

1.  On the 9.2 system, log on to SAS Management Console as an administrator.

2.  On the **Folders** tab, select **Products** ⇨ **BI Dashboard 4.3** ⇨ **ModelConfigs**.

3.  In the right-hand pane, right-click an .imx file and select **Write Content to External File**. Select a destination on your machine and export the file.

4.  Repeat Step 2 and Step 3 for each .imx file.

5.  Search the .imx files for the following string:

    ```
    <ModelProvider>spm</ModelProvider>
    ```

    The matching files are the files that you need to re-create. You cannot simply modify the files and import them, but you can refer to their contents when you re-create the indicator data definitions in SAS BI Dashboard.

### Re-Create the Indicator Data Definitions
To re-create the indicator data definitions:

1.  Log on to the Dashboard Builder:

```
http://server:port/SASBIDashboard
```

- • *server* is the host name of the managed server to which you deployed SAS BI Dashboard.

- • *port* is the port number for the managed server.

2. Click **Manage Dashboards**.

3. For each indicator data definition that must be re-created, follow these steps:

   a. In the **Library** view of the **Objects** pane, select **Indicator Data** from the **New** drop-down list.

   b. In the Create Indicator Data dialog box, type the name of the .imx file (without the extension), and then click **OK**.

   c. From the **Data Source** drop-down list, select **SAS Strategy Management 5.x**.

   d. Define the indicator data. Note the following:

      - • In the **Scorecard Server URL** field, type the URL to the SAS Strategy Management application (as **http://server:port/ SASStrategyManagement**) and click **Set Server**.

      - • Use the <ModelQuery> text from the exported .imx file as a reference for the remaining fields.

      - • If the original query references a single date, use the same date for both **Start Date** and **End Date**.

      For more information, see "View SAS Strategy Management Data in SAS BI Dashboard" in the *SAS Strategy Management: User's Guide* and "Indicator Data" in the *SAS BI Dashboard 4.31: User's Guide*. Both books are available at **http://support.sas.com/documentation/onlinedoc**.

   e. When you save the query, use the same location as the original .imx file (overwriting the original).

### Modify Indicator Definitions

If your migration included dashboards (for SAS BI Dashboard) that use the SAS Strategy Management data provider, you might need to modify the indicator definitions for those dashboards.

To modify an indicator definition:

1. Log on to the Dashboard Builder:

   ```
   http://server:port/SASBIDashboard
   ```

2. Click **Manage Dashboards**.

3. In the **Library** view of the **Objects** pane, navigate to the .idx file, which is in the **Products ➪ BI Dashboard 4.3 ➪ IndicatorDefinitions** folder.

4. Double-click the file to open it in the workspace.

5. In the **General** area of the **Properties** pane, inspect the indicator data selection. If it points to an indicator definition that you re-created in "Re-Create Indicator Data Definitions for Dashboards" on page 29, proceed with the next step.

   Otherwise, this indicator does not use the SAS Strategy Management data provider. Close the indicator definition and skip the remaining steps.

6. In the **Properties** pane, click the **Set up indicator links** button.

7. If the **Link type** is **External Link** and the **Link** path is empty, change the **Link type** to **None** and click **OK**.

8. Save the indicator definition.

Repeat these steps for each .idx file.

For more information about indicator definitions, see "Indicators" in the *SAS BI Dashboard 4.31: User's Guide*.

# Validate the Installation

After you perform the post-migration tasks, validate the installation:

1. Perform the post-configuration tasks that are described in "Performing Post-Configuration Steps" in the *SAS Strategy Management: System Administration Guide*.

   **CAUTION:**
   > Do not install the sample data!

2. Perform the validation tasks that are described in the Instructions.html file on the middle tier.

3. Check for content that you know is present in the source SAS 9.1.3 configuration.

   *Note:* Some migrated content can or should be deleted. See Chapter 11, "Understanding Changes to the Migrated System," on page 55.

You can also run the authorization differences reports. Those reports are described in the "Performing Post-migration Tasks" chapter of the *SAS Intelligence Platform: 9.1.3 to 9.2 Migration Guide*. These reports identify differences in access to libraries, tables, folders, OLAP schemas, and cubes between the SAS 9.1.3 and SAS 9.2 installations. See also *What's New in SAS 9.2 Intelligence Platform* and *What's New in SAS Information Delivery Portal* .

*Part 2*

---

# Migrating from SAS 9.2 to SAS 9.3

*Chapter 6*

# Overview

## Overview

If your installation is on SAS 9.2 and you want to migrate to SAS 9.3, you must complete only the second phase of the migration. Make sure you read and complete "Part 2. Migrating from SAS 9.2 to SAS 9.3."

*Note:* If your current installation is on SAS 9.1.3 and you want to migrate to SAS 9.3, go to "Part 1. Migrating from SAS 9.1.3 to SAS 9.2."

## Notes and Restrictions

Be aware of the following notes and restrictions:

• If you are migrating SAS Strategy Management 5.2, see Appendix 1, "Partial Promotion Migration," on page 81 for additional options.

• You cannot use the SAS Migration Utility and the Software Deployment Wizard to migrate the SAS Intelligence Platform and then rerun the same software to migrate SAS Strategy Management later.

• You cannot migrate installations prior to SAS Strategy Management Version 5.1.

• If you are installing new products in addition to migrating old ones, first complete the migration of the old installation. Then install the new products.

## References

Refer to the following documents to assist with your installation and migration from SAS 9.2 to SAS 9.3:

- *Installation Instructions for Release 5.3 of SAS Strategy Management*. This book contains instructions for installing third-party software, creating users, and installing and configuring the SAS Strategy Management software.

  It is available at the SAS Strategy Management site: **http:// support.sas.com/documentation/onlinedoc/stm**

  *Note:* This site is password-restricted. You can find the user name and password in the pre-installation checklist or by calling Technical Support.

- *SAS Strategy Management: System Administration Guide*. This book contains additional configuration and administration information, as well as a list of changes in SAS Strategy Management. It is available at the site listed above.

- For the SAS Intelligence Platform:

  - *SAS 9.3 Intelligence Platform: Migration Guide*

  - *SAS Intelligence Platform: Installation and Configuration Guide*

  - *What's New in SAS 9.3 Intelligence Platform*

  These documents (and others) are available at **http://support.sas.com/ 93administration**.

- *What's New in SAS Information Delivery Portal*, available at **http:// support.sas.com/documentation**.

*Chapter 7*
# Preliminary Tasks

## Important Assumptions

This document is written with the following assumptions:

- You have prepared for a standard installation (such as installing required third-party applications, planning which tiers are going to be installed on which systems, and so on).

  See the "Pre-Installation Steps" in the *Installation Instructions for Release 5.3 of SAS Strategy Management*. For migration-specific information about external accounts, see "Create Operating System Accounts" on page 37.

- You have prepared a software depot and an installation plan file.

## Create Operating System Accounts

### Required External Accounts

Create the required external accounts in the operating system for the primary users, as listed in your pre-installation checklist. External accounts are defined outside the metadata repository (for example, in the operating system).

When you perform an installation with migration from SAS 9.2, you are given the option of using the new SAS 9.3 internal accounts. This is the preferred option.

The following table summarizes the required external accounts and the differences between SAS 9.2 and SAS 9.3.

*Table 7.1  Required External User Accounts*

| External Account (SAS 9.2) | External Account (SAS 9.3) | Example (SAS 9.3) |
|---|---|---|
| SAS Installer | SAS Installer | *domain*\installer-ID |
| SAS Spawned Servers account | SAS Spawned Servers account | *domain*\sassrv |
| SAS First User | SAS First User | *domain*\sasdemo |

*Note:*

- The *domain* is not used for UNIX accounts.
- The sasdemo account is optional. If you include this identity, it must refer to an external account.

For more information about the account that you must use for installation with migration, see "The SAS Installer Account" on page 38.

## Optional External Accounts

The following external accounts are required only if you do not use the internal-account option:

*Table 7.2  Optional External User Accounts*

| External Account (SAS 9.2) | External Account (SAS 9.3) | Example (SAS 9.3) |
|---|---|---|
| SAS Administrator | SAS Administrator | *domain*\sasadm |
| SAS Trusted User | SAS Trusted User | *domain*\sastrust |

*Note:*  The *domain* is not used for UNIX accounts.

## The SAS Installer Account

The SAS Installer account must be the same account that was used to install SAS 9.2. It must have a corresponding metadata identity, with membership in the Administrators group and the MySQL Users group.

On Windows, this user must be a member of the Administrators group in the operating system.

On UNIX, this user's profile must be the same as the SAS 9.2 profile, including the environment variables for MySQL. Here is an AIX example:

```
# Path to the libdir in your mysql install
MYSQL_LIBDIR=/usr/local/mysql/lib
export MYSQL_LIBDIR
```

```
# Path to directory to hold shared library for SAS Access to MySQL
MYSQL_CLIENT_DIR=/usr/local/SAS/libmysql
export MYSQL_CLIENT_DIR

# Set or add to the shared library load path
LIBPATH=$LIBPATH:$MYSQL_CLIENT_DIR
Or
LIBPATH=/usr/lib/:/lib:$MYSQL_CLIENT_DIR
export LIBPATH

# Add mysql/bin to the PATH environment variable
PATH=$PATH:/usr/local/mysql/bin
export PATH
```

*Note:* On UNIX, verify that the link-editor for object files, ld, is in the SAS installer's path.

# Perform Checks Before Running the SAS Migration Utility

On a single-tier system, perform all the pre-migration checks listed. On a multi-tier system, perform the pre-migration checks on the specified systems.

# Install the SAS Migration Utility 9.2

The SAS Migration Utility is a tool that packages content from the SAS 9.2 installation so that the content can be migrated to a new SAS 9.3 installation. For more information about the SAS Migration Utility, see the *SAS 9.3 Intelligence Platform: Migration Guide* (See "References" on page 35.)

To install the SAS Migration Utility on Windows:

1. In the directory where you downloaded the software depot, find the directory named **products\sassmu2_*version***, where *version* is the version of the SAS Migration Utility.

   This directory contains the smu92 executable files for 32-bit and 64-bit Microsoft Windows operating systems, and UNIX operating systems; the smu.properties.template file; and possibly other files and directories.

2. Copy the contents of the **products\sassmu2_*version*** directory to a new directory on each of the systems in your SAS 9.2 installation. For example, create **C:\Program Files\SAS\SASMigrationUtility\9.2** and copy the files there.

On UNIX, use FTP to send the files from the depot to a new directory on each of the systems in your SAS 9.2 installation.

# Run the SAS Migration Utility

Before you run the SAS Migration Utility, create a shared directory on the network that is available to all of the systems in the installation. This directory becomes the SAS Migration Utility migration package directory. All SAS Migration Utility output from all systems is stored in this directory.

Then perform the following steps on each system that you want to migrate. Begin with the system that is running the SAS 9.2 metadata server:

1. Navigate to the directory where you copied the contents of the **products \sassmu2_version** depot directory, where *version* is the version of the SAS Migration Utility.

2. Copy the smu.properties.template file to smu.properties.

3. Edit the smu.properties file with a text editor.

   *Note:* The smu.properties file is in the Java properties file format. The following format rules are most important to apply when you are editing the smu.properties file:

   • Lines that begin with the # character are comments and have no effect.

   • Backslash characters (\) must be doubled. For example, **C:\\Program Files\ \SAS**.

4. Review the entire smu.properties file and change property settings as necessary.

   The comments in the file explain each property that must be set. This table explains some specific properties:

   | Property | Description |
   | --- | --- |
   | SMU.Output.Dir | This property contains the path to the SAS Migration Utility migration package directory. |
   | | Enter the path to the shared directory that you created in step 1. |
   | SMU.password | The smu.properties comments state that the SMU.password property value must be encoded in the {sas001} format using the PWENCODE procedure. However, a plain-text password is also accepted. If you choose to specify a plain-text password, then for security purposes, erase this password immediately after you run the SAS Migration Utility. |
   | SMU.SASROOT | For systems on which SAS is installed, enter the path to the **! SASROOT** directory. For example, enter one of the following: |
   | | SMU.SASROOT=C:\\Program Files\\SAS\\SAS 9.2 |
   | | SMU.SASROOT=/usr/local/SAS/SAS_9.2 |
   | | On a middle-tier system, comment out this property. |

| Property | Description |
|---|---|
| SMU.spmmidtier.s corecard.ear.dir | This property must be set only for sites with SAS Solutions Services, Versions 5.1 and 5.2, and IBM WebSphere 7 on AIX. |
| | Path to the deployed EAR file for SAS Strategic Performance Management: **WebSphere-install-dir/profiles/ profile-name/installedApps/network-cell- name/SAS Strategic Performance Management.ear** |
| | **WebSphere-install-dir** is the path to the IBM WebSphere root installation directory (such as **/usr/IBM/WebSphere/ AppServer**). |
| | **profile-name** is the name of the application server profile, such as **AppSrv01**. |
| | **network_cell_name** is the cell name of the deployment manager node. |
| SMU.webinfpltfm. dbms.userid  SMU.webinfpltfm. dbms.password | If the installation uses SAS Shared Services, or if you want to migrate alerts and comments from SAS 9.2 to SAS 9.3, enter the user ID and password that you used for the platform migration. For more information, see the *SAS 9.3 Intelligence Platform: Migration Guide* (See "References" on page 35.) |
| SMU.data.dbms.ad min.userid  SMU.data.dbms.ad min.passwd | Enter the user ID and password that you used to install the MySQL database for 9.2. |

5. Complete the applicable step:

| For Windows | Open a command window in the directory in which you installed the SAS Migration Utility and submit the following command: |
|---|---|
| | • **For 32-bit Windows: smu92_32.exe -properties "full_path_to_SMU_install_directory \smu.properties" —replace** |
| | • **For 64-bit Windows: smu92_x64.exe -properties "full_path_to_SMU_install_directory \smu.properties" —replace** |
| | *Note:* In the previous commands, *full_path_to_SMU_install_directory*\smu.properties must be enclosed in double quotation marks only if there is a space in the pathname. |
| | *Note:* You must specify the full path to the smu.properties file in the -PROPERTIES option, even though the smu.properties file is in the current directory (the same directory as the smu.exe file). Because smu.exe is actually a self-extracting archive, it extracts the complete program into a separate temporary directory and runs it from there. |
| | After a few seconds, a second command window appears with the SAS Migration Utility console output. |

| | |
|---|---|
| For UNIX | Submit the following command (line break added for readability):<br><br>`./smu92.sh -- -outputdir /usr/local/SAS/smupackage`<br>`-properties /usr/local/SAS/smu/smu.properties`<br><br>*Note:* The output directory should not be the same as the SAS Migration Utility installation directory. |

6. Wait for the SAS Migration Utility to finish running.

   Check the output as described in "Check the SAS Migration Utility Migration Package" on page 42. For additional troubleshooting help, see "Errors Running the SAS Migration Utility" on page 87.

# Check the SAS Migration Utility Migration Package

In the previous section, you set the SMU.Output.Dir property in the smu.properties file to point to the SAS Migration Utility migration package directory, the directory under which all migrated content is stored.

There is a subdirectory in the SAS Migration Utility migration package directory named after each system on which you run SAS Migration Utility. Inside this subdirectory are many other subdirectories. Each subdirectory contains backed-up content from a particular SAS product. (Some directories might be empty.)

To check the SAS Migration Utility migration package:

1. After smu92_x64.exe finishes running, check the final few lines of output in the command window to determine whether the SAS Migration Utility produced error messages.

2. If the SAS Migration Utility produced error messages, take these steps:

   a. View the migrate.log file in the system's subdirectory inside the SAS Migration Utility migration package directory to determine the cause of the error.

   b. Look for and correct any remaining errors. If you have made corrections, rerun the SAS Migration Utility with the **-replace** option.

3. Review the migration status messages for the products:

   a. In the subdirectory named AnalysisReport, open the FullReport.html file and review the messages.

      There are migration status messages for each product. This report indicates whether you must upgrade any products or install patches before migration can be completed.

   b. Run the SAS Migration Utility again after you install any patches.

   c. Look for and correct any remaining error messages before you continue.

   d. Examine all warning messages.

      *Note:* Warning messages are for informational purposes and are expected on most systems. For example, a warning message appears in the Analysis Report for each data directory found in metadata that exists outside of the

SAS Configuration directory. If these data directories are needed in the SAS 9.3 installation, migrate them manually.

4. Perform these additional checks to verify that data has been backed up correctly:

   *Note:* On the middle tier, ignore these steps.

   a. In the `metadatasrv` subdirectory, verify the existence of these subdirectories: `MetadataRepositories` and `rposmgr`.

   b. In the `MetadataRepositories` subdirectory, verify the existence of one subdirectory for each metadata repository.

   c. In the `spmdatatier` subdirectory, verify the existence of an `SQL` subdirectory that contains two files named spm.sql and sassdm.sql.

# Repeat for Each System

Repeat the steps in and for every other system in this installation (other than client systems).

*Note:* The FullReport.html file shows a failure (✖) for the SAS Metadata Server Product when the smu.exe is run on any tier other than the metadata server system.

*Chapter 8*
# Single-Tier Installation

## Overview

Read the instructions in this chapter. Then follow the installation steps in the *Installation Instructions for Release 5.3 of SAS Strategy Management*. (See "References" on page 35.)

*Note:* If you are migrating content from a SAS 9.1.3 system that has SAS Strategy Management 2.4 content, you must first migrate that system to an intermediate installation of SAS 9.2 with SAS Strategy Management 5.2. (See Part 1.)

## 1. Run the SAS Deployment Wizard

Run the SAS Deployment Wizard, making the following selections:

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

- **Perform migration**: If you are migrating content from a SAS 9.2 system that has SAS Strategy Management, Versions 5.1 or 5.2, content, select **Perform Migration** when the **Migration Information** page appears.

  In the **SAS Migration Utility Package Directory** field, type or navigate to the shared directory in which the SAS Migration Utility stored its output.

Refer to the following notes when you are responding to prompts in the SAS Deployment Wizard:

- **Internal Accounts**: It is recommended that you select **Use SAS internal accounts when appropriate** on the Deployment Accounts wizard page. See "Create Operating System Accounts" on page 37.

• **External accounts**: When you are asked for the user name and password of an external account, check the domain name prefix carefully to ensure that it is correct for your site. The domain name prefix from a previously migrated system might still be in use.

   *Note:* MySQL and WebLogic account names are created in MySQL Server and Oracle WebLogic. These are not operating system accounts. Do not add a host name prefix to these account names.

• **Server context**: The SAS Deployment Wizard presents several pages in which you must select the application server context. During migration, the correct application server context might not be selected by default. Typically, given the choice between the SAS metadata server context - SASMeta and SAS application server - SASApp, you should choose SASApp.

• When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. The other database types that are listed, including SAS Table Server, are not supported for migration.

When the Deployment Summary page appears, the SAS Deployment Wizard has finished collecting installation and configuration input. This is your last opportunity to go back and change any information that you have provided in previous pages before the wizard begins writing to your system. Before you proceed with a migration, make sure that the input that you have provided to the SAS Deployment Wizard is correct.

***CAUTION:***
   **Incorrect user input such as user ID and passwords causes all or portions of your migration to fail.**

For detailed information, see the installation guides for the SAS Intelligence Platform. (See "References" on page 35.)

# 2. Perform the Instructions.html Tasks

Follow the steps in the Instructions.html file.

# 3. Perform the Post-Migration Tasks

Perform the post-migration tasks as described in Chapter 10, "Post-Migration Tasks," on page 51.

*Chapter 9*
# Multi-Tier Installation

## Overview

For multi-tier installations, read the instructions in this chapter before you install SAS
Strategy Management. Then follow the installation steps in the *Installation Instructions
for Release 5.3 of SAS Strategy Management*. (See .)

## Separate Metadata Tier Installation

If the data tier and metadata tier are on the same system, go to
.

Otherwise, complete the following steps:

1. Run the Software Deployment Wizard on the metadata tier first.

   Select both **Install SAS Software** and **Configure SAS Software** as the deployment
   type.

2. If you are performing a migration installation, select **Perform migration** when the
   Migration Information page appears.

3. After you complete the installation and configuration of the metadata tier, go to
   .

# Data Tier Installation on the Target System

## *Overview*

Complete the following installation and configuration steps for installation and migration on the data tier (the system on which you installed the MySQL Server) and on which you plan to install the SAS Strategy Management data-tier software.

## *1. Run the SAS Deployment Wizard*

Run the SAS Deployment Wizard, making the following selections:

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

- **Perform migration**: If you are migrating content from a SAS 9.2 system that has SAS Strategy Management, Versions 5.1 or 5.2, content, select **Perform Migration** when the **Migration Information** page appears.

  In the **SAS Migration Utility Package Directory** field, type or navigate to the shared directory in which the SAS Migration Utility stored its output.

Refer to the following notes when you are responding to prompts in the SAS Deployment Wizard:

- **Internal Accounts**: It is recommended that you select **Use SAS internal accounts when appropriate** on the Deployment Accounts wizard page. See "Create Operating System Accounts" on page 37.

- **External accounts**: When you are asked for the user name and password of an external account, check the domain name prefix carefully to ensure that it is correct for your site. The domain name prefix from a previously migrated system might still be in use.

  *Note:* MySQL and WebLogic account names are created in MySQL Server and Oracle WebLogic. These are not operating system accounts. Do not add a host name prefix to these account names.

- **Server context**: The SAS Deployment Wizard presents several pages in which you must select the application server context. During migration, the correct application server context might not be selected by default. Typically, given the choice between the SAS metadata server context - SASMeta and SAS application server - SASApp, you should choose SASApp.

- When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. The other database types that are listed, including SAS Table Server, are not supported for migration.

When the Deployment Summary page appears, the SAS Deployment Wizard has finished collecting installation and configuration input. This is your last opportunity to go back and change any information that you have provided in previous pages before the wizard begins writing to your system. Before you proceed with a migration, make sure that the input that you have provided to the SAS Deployment Wizard is correct.

*CAUTION:*
  **Incorrect user input such as user ID and passwords causes all or portions of your migration to fail.**

For detailed information, see the installation guides for the SAS Intelligence Platform. (See )

### 2. Perform the Instructions.html Tasks

Follow the steps in the Instructions.html file.

Next, go to .

# Installation on Additional Tiers

Complete the following steps on every other tier (excluding client systems).

### 1. Run the SAS Deployment Wizard

Run the SAS Deployment Wizard.

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software**.
- **Perform migration**: When the Migration Information page appears, select **Perform migration**.
- **(Middle tier)** When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. SAS Strategy Management requires MySQL. The other database types that are listed, including SAS Table Server, do not support migration.

### 2. Perform the Instructions.html Tasks

Follow the steps in the Instructions.html file.

# Post-Migration

After you install and configure all the systems (other than client systems), perform the steps in .

*Chapter 10*
# Post-Migration Tasks

## Overview

This chapter contains tasks that must be performed after the installation and migration steps are complete.

Completing the tasks in this chapter requires the following:

- You must have completed the installation, configuration, and migration steps that are outlined in the previous chapters of Part 2.

- You must have access to SAS Management Console in the SAS 9.3 installation.

For information about the repositories, folders, and libraries in a migrated system, see

## Apply File Permissions

Before you perform any of the post-migration tasks, apply file permissions as described in the *SAS Strategy Management: System Administration Guide*. Otherwise, some tasks in this chapter will fail.

In particular, apply the following permissions to the **SAS-config-dir**
**\Lev1\SASMain\Data** directory and its subdirectories:

| | |
|---|---|
| For Windows installations | Grant Full Control to SAS General Server User (sassrv). Grant Read/Write/Modify permission to users who run ETL or SAS jobs to update data in the warehouse. These users should include the Solutions Host User (sassln). |

| For UNIX installations | Permit full access for the sas user ID and the sas user group. |
|---|---|

# Complete the Migration of Specific Features

The content that you must manually migrate is listed as items excluded in the "What Can Be Migrated?" section of the *SAS 9.3 Intelligence Platform: Migration Guide*. (See "References" on page 35.) These items include:

- JVM options for the managed servers

- configuration settings for Oracle MySQL Server

Depending on the installation that you are migrating, some features are not migrated or are not completely migrated. Review the following table to determine if your installation contains any of the affected features.

*Table 10.1* Feature Migration

| Feature | Migrated | Not Migrated |
|---|---|---|
| Links in table cell | Table cell links are now consolidated and collected into one location. You can now manage links by using the Manage Links wizard. For more information, see the *SAS Strategy Management: User's Guide*. | Document Manager directives for opening SAS Strategy Management content are not migrated. In some cases, these directives have been replaced with the project-managed links for cell links. |
| My Favorites portlet | Any Solutions Services My Favorites portlet that contains links to SAS Strategy Management is migrated to a SAS Information Delivery Portal Collections portlet. The Collections portlet uses the same name and is located on the same portal page as the original My Favorites portlet. The Collections portlet now provides the Strategy Management links for data entry forms, Manage Scorecard Projects and Templates, and New Strategy Management Scorecard. | The following content is not migrated:<br><br>• any links in a My Favorites portlet that are not to SAS Strategy Management<br><br>• My Favorites portlets that do not contain any links to SAS Strategy Management |
| SAS Strategy Management Dashboard providers | The providers are migrated. | The Web addresses in the providers require manual updating. To correct Web addresses, see Appendix 2, "Incorrect Web Addresses in Dashboards," on page 85. |

| Feature | Migrated | Not Migrated |
| --- | --- | --- |
| Custom stored processes | Custom stored processes are migrated if they are located in the **SAS-config-dir** directory or are stored in metadata. | If a custom stored process is not located in the **SAS-config-dir** directory or is not stored in metadata, it must be manually migrated.<br><br>For more information, see "Migrating Content Stored Outside of the SAS Configuration Directory" in the *SAS 9.3 Intelligence Platform: Migration Guide*. (See "References" on page 35.) |
| SAS Information Maps for SAS Strategy Management | Fully migrated | |

## Correct the Presence of Solutions Users Group

After migration, some projects on the target server might show that SAS Strategy Management objects within the project have Solutions Users group permissions assigned even though no explicit object permissions have been assigned. Click **Project ⇨ Security Administration**. The Security Administration - Project Permissions Display page appears. The Solutions Users group appears in the Identity column for all of the objects in the table.

In a migration installation of SAS Strategy Management, there are installation-wide default object permissions for each type of SAS Strategy Management secured object that was migrated. These default permissions are used for a secured object when there are no explicit or inherited permissions available for that object. If a SAS Strategy Management object is using default permissions, adding a permission overrides the default.

When the administrator adds a new user or group to the affected SAS Strategy Management object, the Solutions Users group no longer appears.

## Validate the Installation

After you perform the post-migration tasks, validate the installation:

1. Perform the post-configuration tasks that are described in "Performing Post-Configuration Steps" in the *SAS Strategy Management: System Administration Guide*.

2. Perform the validation tasks that are described in the Instructions.html file on the middle tier.

3. Check for content that you know is present in the source SAS 9.2 configuration.

   *Note:*  Some migrated content can or should be deleted. See Chapter 11, "Understanding Changes to the Migrated System," on page 55.

You can also run the authorization differences reports. Those reports are described in the "Performing Post-migration Tasks" chapter of the *SAS 9.3 Intelligence Platform: Migration Guide*. These reports identify differences in access to libraries, tables, folders, OLAP schemas, and cubes between the SAS 9.2 and SAS 9.3 installations. See also *What's New in SAS 9.3 Intelligence Platform* and *What's New in SAS Information Delivery Portal*.

For more information about changes that are specific to SAS Strategy Management, see Chapter 11, "Understanding Changes to the Migrated System," on page 55, as well as "What's New in SAS Strategy Management 5.3" in the *SAS Strategy Management: System Administration Guide*.

*Chapter 11*

# Understanding Changes to the Migrated System

## Overview

This chapter describes changes that you might notice after migrating from SAS Strategy Management Versions 5.1 or 5.2 to SAS Strategy Management Version 5.3. You might notice changes in objects such as metadata repositories, folders, libraries, and data sets.

## Metadata Repositories

All the metadata repositories that existed in the SAS 9.2 metadata server have been migrated to the SAS 9.3 metadata server. SAS Management Console in SAS 9.3 is similar to SAS Management Console in SAS 9.2, with the following exceptions:

- In the Configuration Manager, the Software Components now reflect installation dependencies.

- The SAS Strategy Management 5.3 software component now appears under the SAS Application Infrastructure.

- There is a new **Search** tab.

## Migration of Metadata Users, Roles, and Groups

Metadata role and group memberships are migrated from SAS Strategy Management, Versions 5.1 or 5.2, to Version 5.3 in the following ways:

In general, the Versions 5.1 and 5.2 roles are transferred into applicable Version 5.3 roles.

*Table 11.1*   *Changes in Roles from Versions 5.1 and 5.2 to Version 5.3*

| Versions 5.1 and 5.2 Roles | Version 5.3 Roles |
| --- | --- |
| Analyst | Strategy Management Analyst |
| Information Consumer | Strategy Management Information Consumer |
| Scorecard Data Entry | Strategy Management Data Entry |
| Scorecard Modeler | Strategy Management Modeler |
| System Administrator | Strategy Management Administrator |

*Note:* SAS Solution Services roles that are not used by SAS Strategy Management or that are not affected by migration are not shown.

*Note:* Names shown in this table are the actual role names and not the localized display names.

To preserve permissions settings, Versions 5.1 and 5.2 groups are added as members of the applicable Version 5.3 group.

*Table 11.2*   *Changes in Groups from Versions 5.1 and 5.2 to Version 5.3*

| Versions 5.1 and 5.2 Groups | Version 5.3 Groups |
| --- | --- |
| Analyst Group | Strategy Management Analyst Group |
| Information Consumer Group | Strategy Management Information Consumer Group |
| Scorecard Data Entry Group | Strategy Management Data Entry Group |
| Scorecard Modeler Group | Strategy Management Modeler Group |
| Solutions Administrators Group | Strategy Management Administrators Group |
| SPM MySQL Users | SPM MySQL Users |
| SPM Users | Strategy Management Users |

*Note:* Other SAS Solution Services groups and users that are not used by SAS Strategy Management or that are not affected by migration are not shown.

*Note:* Names shown in this table are the actual group names and not the localized display names.

As part of the standard SAS Strategy Management 5.3 installation, all of the roles are now assigned capabilities. For information about the new implementation of roles, capabilities, and groups, see "Securing Access to SAS Strategy Management" in the *SAS Strategy Management: System Administration Guide*. (See "References" on page 35.)

Roles and groups that are no longer supported in SAS Strategy Management 5.3 are not removed from metadata because other products might continue to use the roles and groups. However, you can determine whether these roles and groups can be safely removed or consolidated at your site.

For more information, see "Creating Operating System Accounts" on page 6. For information about groups and roles in the SAS Intelligence Platform, see *What's New in SAS 9.3 Intelligence Platform*. (See "References" on page 35.)

# Solutions SASSDM Data Migrations

The following items are migrated from the Solutions SASSDM to be internally managed within the SPM database. These migrations are usually transparent to users.

- Security Object Permissions

- Formula Definitions

- Time and Hierarchy dimension definitions

  *Note:* Dimension definition migration does not occur if FM/ODCS is present in the installation plan.

If the SAS Financial Management and ODCS products are present in the installation plan, the Time and Hierarchy migration does not occur. Any Time dimension hierarchies or other dimension hierarchies from SAS Strategy Management, Version 5.1 or 5.2, that are used by a project continue to be available to SAS Strategy Management through the ODCS client interfaces.

If the SAS Financial Management and ODCS products are absent, the Time dimension hierarchies that are used by projects in SAS Strategy Management Version 5.1 or 5.2 are migrated into a SAS Strategy Management Time hierarchy definition with the same dimension name. If a hierarchy-based project that includes a scorecard hierarchy was created upon and synchronized with an FM/ODCS dimension hierarchy, the project continues to function but is no longer synchronized with the FM/ODCS hierarchies.

Time hierarchies that are migrated are no longer maintained using SAS Financial Management Studio or Solutions Dimension Editor. You can maintain the migrated Time hierarchies by using the SAS Strategy Management Time Period Set wizard. The wizard is a new feature in SAS Strategy Management Builder. For more information, see the *SAS Strategy Management: System Administration Guide*. (See "References" on page 35.)

# *Part 3*

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# Fully Promoting a SAS Strategy Management 5.3 Installation to Another System

*Chapter 12*
# Overview

## Overview

If you have a SAS Strategy Management 5.3 installation and you want to migrate (copy) it to another system, you can do so in one of the following ways:

- complete the steps described in this part (Part 3) of the *SAS Strategy Management: Migration Guide*.

  When you follow these steps, you rely on the SAS Software Depot to accomplish the migration. If the version of SAS Strategy Management in the SAS Software Depot does not match the version in your installation (for example, Version 5.3 instead of Version 5.31, the software installation can vary and is not a perfect copy of the source installation of SAS Strategy Management.

- use the SAS 9.3 Solutions Backup, Restore, and Migrate (BRM) Tool. This tool provides support for migrating and copying a SAS Strategy Management 5.3 installation. Contact SAS Technical Support to obtain this tool.

  When you use this tool, an exact copy of the source installation of SAS Strategy Management is created on the target system.

## References

Refer to the following documents to assist with your full promotion:

- *Installation Instructions for Release 5.3 of SAS Strategy Management*. This book contains instructions for installing third-party software, creating users, and installing and configuring the SAS Strategy Management software.

  It is available at the SAS Strategy Management site: `http://support.sas.com/documentation/onlinedoc/stm`

  *Note:* This site is password-restricted. You can find the user name and password in the pre-installation checklist or by calling Technical Support.

- *SAS Strategy Management: System Administration Guide*. This book contains additional configuration and administration information, as well as a list of changes in SAS Strategy Management. It is available at the site listed above.

- For the SAS Intelligence Platform:

  - *SAS 9.3 Intelligence Platform: Migration Guide*

  - *SAS Intelligence Platform: Installation and Configuration Guide*

  - *What's New in SAS 9.3 Intelligence Platform*

  These documents (and others) are available at **http://support.sas.com/93administration**.

- *What's New in SAS Information Delivery Portal*, available at **http://support.sas.com/documentation**.

*Chapter 13*
# Preliminary Tasks

## Install the SAS Migration Utility 9.3

The SAS Migration Utility is a tool that packages content from the SAS 9.3 installation so that the content can be migrated to a new SAS 9.3 installation. For more information about the SAS Migration Utility, see the *SAS 9.3 Intelligence Platform: Migration Guide*. (See "References" on page 61.)

To install the SAS Migration Utility on Windows:

1. In the directory where you downloaded the software depot, find the directory named **products\sassmu3_version** where *version* is the version of the SAS Migration Utility.

   This directory contains the smu93 executable files for Microsoft Windows and UNIX operating systems, the smu.properties.template file, and possibly other files and directories.

2. Copy the contents of the **products\sassmu3_version** directory to a new directory on each of the systems in your SAS 9.3 installation. For example, create **C:\Program Files\SAS\SASMigrationUtility\9.3** and copy the files there.

On UNIX, use FTP to transfer the files from the depot to a new directory on each of the systems in your SAS 9.3 installation.

## Run the SAS Migration Utility

Before you run the SAS Migration Utility, create a shared directory on the network that is available to all of the systems in the installation. This directory becomes the SAS Migration Utility migration package directory. All SAS Migration Utility output from all systems is stored in this directory.

Then perform the following steps on each system that you want to migrate. Begin with the system that is running the SAS 9.3 metadata server:

1. Navigate to the directory where you copied the contents of the **products \sassmu3_version** depot directory, where *version* is the version of the SAS Migration Utility.

2. Copy the smu.properties.template file to smu.properties.

3. Edit the smu.properties file with a text editor.

   *Note:* The smu.properties file is in the Java properties file format. The following format rules are most important to apply when you are editing the smu.properties file:

   • Lines that begin with the # character are comments and have no effect.

   • Backslash characters (\) must be doubled. For example, **C:\\Program Files\ \SAS**.

4. Review the entire smu.properties file and change property settings as necessary.

   The comments in the file explain each property that must be set. This table explains some specific properties:

   | Property | Description |
   | --- | --- |
   | SMU.Output.Dir | This property contains the path to the SAS Migration Utility migration package directory. |
   | | Enter the path to the shared directory that you created in step 1. |
   | SMU.password | The smu.properties comments state that the SMU.password property value must be encoded in the {sas001} format using the PWENCODE procedure. However, a plain-text password is also accepted. If you choose to specify a plain-text password, then, for security purposes, erase this password immediately after you run the SAS Migration Utility. |
   | SMU.SASROOT | For systems on which SAS is installed, enter the path to the **! SASROOT** directory. For example, enter one of the following: |
   | | `SMU.SASROOT=C:\\Program Files\\SAS\\SAS 9.3` |
   | | or |
   | | `SMU.SASROOT=/usr/local/SAS/SAS_9.3` |
   | | On a middle-tier system, comment out this property. |

| Property | Description |
|---|---|
| SMU.spmmidtier.scorecard.ear.dir | This property must be set only for sites with SAS Solutions Services, Versions 5.1 and 5.2, and IBM WebSphere 7 on AIX: |
| | Path to the deployed EAR file for SAS Strategic Performance Management: **WebSphere-install-dir/profiles/ profile-name/installedApps/network-cell- name/SAS Strategic Performance Management.ear** |
| | **WebSphere-install-dir** is the path to the IBM WebSphere root installation directory (such as **/usr/IBM/WebSphere/ AppServer**). |
| | **profile-name** is the name of the application server profile (such as **AppSrv01**). |
| | **network_cell_name** is the cell name of the deployment manager node. |
| SMU.webinfpltfm.dbms.userid SMU.webinfpltfm.dbms.password | If the installation uses SAS Shared Services, or if you want to migrate alerts and comments from SAS 9.3 to SAS 9.3, enter the user ID and password that you used for the platform migration. For more information, see the *SAS 9.3 Intelligence Platform: Migration Guide*. (See "References" on page 61.) |
| SMU.data.dbms.admin.userid SMU.data.dbms.admin.passwd | Enter the user ID and password that you used to install the MySQL database for SAS 9.3. |

5. Complete the applicable step:

| | |
|---|---|
| For Windows | Open a command window in the directory in which you installed the SAS Migration Utility and submit the following command: |
| | **smu93_x64.exe -properties "full_path_to_SMU_install_directory \smu.properties" —replace** |
| | *Note:* In the previous commands, *full_path_to_SMU_install_directory*\smu.properties must be enclosed in double quotation marks only if there is a space in the pathname. |
| | *Note:* You must specify the full path to the smu.properties file in the -PROPERTIES option, even though the smu.properties file is in the current directory (the same directory as the smu.exe file). Because smu.exe is actually a self-extracting archive, it extracts the complete program into a separate temporary directory and runs it from there. |
| | After a few seconds, a second command window appears with the SAS Migration Utility console output. |

| | |
|---|---|
| For UNIX | Submit the following command (line break added for readability): |
| | `./smu93.sh -- -outputdir /usr/local/SAS/smupackage`<br>`-properties /usr/local/SAS/smu/smu.properties` |
| | *Note:* The output directory should not be the same as the SAS Migration Utility installation directory. |

6. Wait for the SAS Migration Utility to finish running.

   Check the output as described in . For additional troubleshooting help, see .

# Check the SAS Migration Utility Migration Package

In the previous section, you set the SMU.Output.Dir property in the smu.properties file to point to the SAS Migration Utility migration package directory, the directory under which all migrated content is stored.

There is a subdirectory in the SAS Migration Utility migration package directory named after each system on which you run SAS Migration Utility. Inside this subdirectory are many other subdirectories. Each subdirectory contains backed-up content from a particular SAS product. (Some directories might be empty.)

To check the SAS Migration Utility migration package:

1. After smu93_x64.exe finishes running, check the final few lines of output in the command window to determine whether the SAS Migration Utility produced error messages.

2. If the SAS Migration Utility produced error messages, take these steps:

   a. View the migrate.log file in the system's subdirectory inside the SAS Migration Utility migration package directory to determine the cause of the error.

   b. Look for and correct any remaining errors. If you have made corrections, rerun the SAS Migration Utility with the **-replace** option.

3. Review the migration status messages for the products:

   a. In the subdirectory named AnalysisReport, open the FullReport.html file and review the messages.

      There are migration status messages for each product. This report indicates whether you must upgrade any products or install patches before migration can be completed.

   b. Run the SAS Migration Utility again after you install any patches.

   c. Look for and correct any remaining error messages before you continue.

   d. Examine all warning messages.

      *Note:* Warning messages are for informational purposes and are expected on most systems. For example, a warning message appears in the Analysis Report for each data directory found in metadata that exists outside of the

SAS Configuration directory. If these data directories are needed in the SAS 9.3 installation, migrate them manually.

4. Perform these additional checks to verify that data has been backed up correctly:

   *Note:* On the middle tier, ignore these steps.

   a. In the `metadatasrv` subdirectory, verify the existence of these subdirectories: `MetadataRepositories` and `rposmgr`.

   b. In the `MetadataRepositories` subdirectory, verify the existence of one subdirectory for each metadata repository.

   c. In the `spmdatatier` subdirectory, verify the existence of a `SQL` subdirectory that contains two files named spm.sql and sassdm.sql.

# Repeat for Each System

Repeat the steps in and for every other system in this installation (other than client systems).

*Chapter 14*
# Single-Tier Installation

## Overview

Read the instructions in this chapter. Then follow the installation steps in the *Installation Instructions for Release 5.3 of SAS Strategy Management*. (See "References" on page 61.)

## 1. Run the SAS Deployment Wizard

Run the SAS Deployment Wizard, making the following selections:

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

- **Perform migration**: If you are migrating content from a SAS 9.3 system that has SAS Strategy Management 5.3, content, select **Perform Migration** when the **Migration Information** page appears.

Refer to the following notes when you are responding to prompts in the SAS Deployment Wizard:

- **Internal Accounts**: It is recommended that you select **Use SAS internal accounts when appropriate** on the **Deployment Accounts wizard** page. See "Create Operating System Accounts" on page 37.

- **External accounts**: When you are asked for the user name and password of an external account, check the domain name prefix carefully to ensure that it is correct for your site. The domain name prefix from a previously migrated system might still be in use.

    *Note:* MySQL and WebLogic account names are created in MySQL Server and Oracle WebLogic. These are not operating system accounts. Do not add a host name prefix to these account names.

- **Server context**: The SAS Deployment Wizard presents several pages in which you must select the application server context. During migration, the correct application server context might not be selected by default. Typically, given the choice between the SAS metadata server context - SASMeta and SAS application server - SASApp, you should choose SASApp.

- When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. The other database types that are listed, including SAS Table Server, are not supported for migration.

When the Deployment Summary page appears, the SAS Deployment Wizard has finished collecting installation and configuration input. This is your last opportunity to go back and change any information that you have provided in previous pages before the wizard begins writing to your system. Before you proceed with the migration, make sure that the input that you have provided to the SAS Deployment Wizard is correct.

*CAUTION:*
**Incorrect user input such as user ID and passwords causes all or portions of your migration to fail.**

For detailed information, see the installation guides for the SAS Intelligence Platform. (See "References" on page 61.)

# 2. Perform the Instructions.html Tasks

Follow the steps in the Instructions.html file.

# 3. Perform the Post-Promotion Tasks

Perform the post-promotion tasks as described in Chapter 16, "Post-Promotion Tasks," on page 75.

*Chapter 15*
# Multi-Tier Installation

## Overview

For multi-tier installations, read the instructions in this chapter before you install SAS Strategy Management. Then follow the installation steps in the *Installation Instructions for Release 5.3 of SAS Strategy Management*. (See "References" on page 61.)

## Separate Metadata Tier Installation

If the data tier and metadata tier are on the same system, go to "Data-Tier Installation on the Target System" on page 72.

Otherwise, complete the following steps:

1. Run the Software Deployment Wizard on the metadata tier first.

   Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

2. If you are performing a migration installation, select **Perform migration** when the Migration Information page appears.

3. After you complete the installation and configuration of the metadata tier, go to "Data-Tier Installation on the Target System" on page 72.

# Data-Tier Installation on the Target System

## Overview

Complete the following installation and configuration steps for installation and migration on the data tier (the system on which you installed the MySQL Server) and on which you plan to install the SAS Strategy Management data-tier software.

## 1. Run the SAS Deployment Wizard

Run the SAS Deployment Wizard, making the following selections:

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software** as the deployment type.

- **Perform migration**: If you are migrating content from a SAS 9.3 system that has SAS Strategy Management 5.3, content, select **Perform Migration** when the **Migration Information** page appears.

Refer to the following notes when you are responding to prompts in the SAS Deployment Wizard:

- **Internal Accounts**: It is recommended that you select **Use SAS internal accounts when appropriate** on the **Deployment Accounts wizard** page. See "Create Operating System Accounts" on page 37.

- **External accounts**: When you are asked for the user name and password of an external account, check the domain name prefix carefully to ensure that it is correct for your site. The domain name prefix from a previously migrated system might still be in use.

  *Note:* MySQL and WebLogic account names are created in MySQL Server and Oracle WebLogic. These are not operating system accounts. Do not add a host name prefix to these account names.

- **Server context**: The SAS Deployment Wizard presents several pages in which you must select the application server context. During migration, the correct application server context might not be selected by default. Typically, given the choice between the SAS metadata server context - SASMeta and SAS application server - SASApp, you should choose SASApp.

- When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. The other database types that are listed, including SAS Table Server, are not supported for migration.

When the Deployment Summary page appears, the SAS Deployment Wizard has finished collecting installation and configuration input. This is your last opportunity to go back and change any information that you have provided in previous pages before the wizard begins writing to your system. Before you proceed with the migration, make sure that the input that you have provided to the SAS Deployment Wizard is correct.

**CAUTION:**
**Incorrect user input such as user ID and passwords causes all or portions of your migration to fail.**

For detailed information, see the installation guides for the SAS Intelligence Platform. (See "References" on page 61.)

### *2. Perform the Instructions.html Tasks*

Follow the steps in the Instructions.html file.

Next, go to .

# Installation on Additional Tiers

Complete the following steps on every other tier (excluding client systems).

### *1. Run the SAS Deployment Wizard*

Run the SAS Deployment Wizard.

- **Deployment type**: Select both **Install SAS Software** and **Configure SAS Software**.

- **Perform migration**: When the Migration Information page appears, select **Perform migration**.

- **(Middle tier)** When you are asked to specify the database type to use for SAS Shared Services, always select **MySQL**. SAS Strategy Management requires MySQL. The other database types that are listed, including SAS Table Server, do not support migration.

### *2. Perform the Instructions.html Tasks*

Follow the steps in the Instructions.html file.

# Post-Promotion Tasks

Perform the post-promotion tasks as described in .

*Chapter 16*
# Post-Promotion Tasks

## Overview

A fully-promoted system should, with few exceptions, be identical in content and functionality to the original system except that it might be differently hosted. This chapter contains tasks that must be performed after the full promotion of one SAS Strategy Management 5.3 installation to another is complete.

Completing the tasks in this chapter requires the following:

- You must have completed the steps that are outlined in the previous chapters of Part 3.

- You must have access to SAS Management Console in the SAS 9.3 installation.

## Apply File Permissions

Before you perform any of the post-migration tasks, apply file permissions as described in the *SAS Strategy Management: System Administration Guide*. Otherwise, some tasks in this chapter will fail.

In particular, apply the following permissions to the **SAS-config-dir \Lev1\SASMain\Data** directory and its subdirectories:

| | |
|---|---|
| For Windows installations | Grant Full Control to SAS General Server User (sassrv). Grant Read/ Write/Modify permission to users who run ETL or SAS jobs to update data in the warehouse. These users should include the Solutions Host User (sassln). |

| For UNIX installations | Permit full access for the sas user ID and the sas user group. |
| --- | --- |

## Complete the Migration of Specific Features

The content that you must manually migrate is listed as items excluded in the "What Can Be Migrated?" section of the *SAS 9.3 Intelligence Platform: Migration Guide*. (See "References" on page 61.) These items include:

- autoexec files and sasv9.cfg

- JVM options for the managed servers

- configuration settings for Oracle MySQL Server

- custom portlet code

- custom metadata

Depending on the installation that you are migrating, some features are not migrated or are not completely migrated. Review the following table to determine if your installation contains any of the affected features.

*Table 16.1   Feature Migration*

| Feature | Migrated | Not Migrated |
| --- | --- | --- |
| Custom stored processes | Custom stored processes are migrated if they are located in the **SAS-config-dir** directory or are stored in metadata. | If a custom stored process is not located in the **SAS-config-dir** directory or is not stored in metadata, it must be manually migrated. See "Copy Stored Process Files" on page 76. |
| Diagram image files | Diagram files are migrated. | In some installations, diagram image files might require manual copying or uploading. See "Copy Diagram Image Files" on page 77. |
| SAS Strategy Management Dashboard providers | The providers are migrated. | The Web addresses in the providers require manual updating. To correct Web addresses, see Appendix 2, "Incorrect Web Addresses in Dashboards," on page 85. |

## Copy Stored Process Files

The SAS migration process migrates only stored processes that are located in the **C:\SAS\Config\Lev1** directory or its subdirectories. If your stored processes, such as those used in links, are located in another directory, then execution of the stored processes appears to fail.

To correct the problem:

- If the affected stored process is not located on a common shared network drive, copy the stored process directory and files from the source system to the target system.

- If the file path on the target system is different than the file path on the source system, use SAS Management Console to locate the stored process folder location in metadata. Update the stored process metadata to add or update its Source Code Repository path, using the file path for the stored process on the target system.

# Copy Diagram Image Files

Diagram image files are not copied during the migration and diagrams seem to fail. To correct the problem, copy the diagram image files from the source system to the target system in both the WebApp WAR and customcontent directories. For example:

- **`buildWAR: custom.content.dir = C:\SAS\Config\Lev1\Web\Common \SASServer11`**

- **`C:\SAS\Config\Lev1\Web\Staging\exploded \sas.strategymanagement5.3.ear\sas.strategymanagement.war \images\customer`**

# Validate the Installation

After you perform the post-promotion tasks, validate the installation:

1. Perform the post-configuration tasks that are described in "Performing Post-Configuration Steps" in the *SAS Strategy Management: System Administration Guide*. (See "References" on page 61.)

2. Perform the validation tasks that are described in the Instructions.html file on the middle tier.

3. Check for content that you know is present in the source SAS 9.3 configuration.

You can also run the authorization differences reports. These reports are described in *SAS 9.3 Intelligence Platform: Migration Guide*. These reports identify differences in access to libraries, tables, folders, OLAP schemas, and cubes for SAS 9.3 installations.

# *Part 4*

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# Appendices

*Appendix 1*
# Partial Promotion Migration

## Overview

The SAS Migration Utility is the preferred way to migrate from SAS Strategic Performance Management 2.4 to Versions 5.1 and 5.2, or from Version 5.2 to Version 5.3.

However, for situations in which you cannot use the SAS Migration Utility, you can use the partial promotion tools that are shipped with SAS Strategy Management and additional tools that are available for download from SAS Technical Support as Tool Pool items. These tools are available to both consultants and customers as downloads on or shortly after the official product ship date.

## Situations Requiring Partial Promotion

The following situations are examples of when you might use an alternative to the SAS Migration Utility:

- the topology of the two systems is different.

- a site has a SAS 9.3 Enterprise BI Server production environment in which users are actively editing content. At a later date, the site decides to install SAS Strategy Management 5.3 in the SAS Enterprise BI Server environment and to migrate their SAS Strategic Performance Management 2.4 content to SAS Strategy Management 5.3.

- the site has systems in parallel. If the production system is SAS 9.1.3 with SAS Strategic Performance Management 2.4, then an intermediate migration to SAS 9.2 with SAS Strategy Management 5.2 is required. (See Part 1. "Migrating from SAS 9.1.3 to SAS 9.2" in this book.) This first migration is then followed by a migration from SAS 9.2 with SAS Strategy Management 5.2 to SAS 9.3 with SAS Strategy Management 5.3. The second migration uses the SAS Migration Utility 9.3 tools to

migrate content from the intermediate system to the SAS Strategy Management 5.3 production server.

If the production system is SAS 9.2 with SAS Strategy Management Versions 5.1 or 5.2, then you install SAS 9.3 with SAS Strategy Management 5.3 by using the SAS Migration Utility to migrate content directly from the SAS Strategy Management Version 5.1 or 5.2 production server.

In all cases, the SAS Strategic Performance Management 2.4, SAS Strategy Management 5.1, or SAS Strategy Management 5.2 production server is still running on another system (or set of systems). When you are ready to make the SAS Strategy Management 5.3 server the production server, content changes in the 2.4, 5.1, or 5.2 server should be moved to the 5.3 server. The partial promotion tools can assist with moving this content.

• a site has development, test, and production servers running SAS Strategy Management 5.3.

## Tools for Partial Promotion

SAS Strategy Management provides the following tools for partial promotion:

• **Export:** For information about export, see the *SAS Strategy Management: User's Guide*. (See "References" on page 61.)

• **Batch Maintenance Facility:** For more information, see the following applicable documents:

  • *SAS Strategic Performance Management 2.4: User's Guide* at `http://support.sas.com/documentation/onlinedoc/spm/`.

  • *SAS Strategy Management 5.1: Batch Maintenance Facility User's Guide* at `http://support.sas.com/documentation/onlinedoc/stm/index.html`.

  • *SAS Strategy Management 5.2: Batch Maintenance Facility User's Guide* at `http://support.sas.com/documentation/onlinedoc/stm/index.html`.

  • *SAS Strategy Management: System Administration Guide* at `http://support.sas.com/documentation/onlinedoc/stm/index.html`.

• **SAS Strategy Management Data-tier Migration Tool:** This is a tool script available from SAS Technical Support. The tool performs the same data transformation steps as in the SAS Deployment Wizard spmdatatier migrations without requiring that you run a full migration and installation with SAS Deployment Wizard.

This tool allows direct migration of the SPM database and related content from Versions 2.4, 5.1, and 5.2 to Version 5.3. Full documentation, including usage instructions, capabilities, and limitations, is available with the download from SAS Technical Support.

# Convert SQL Files

When you migrate SAS Strategy Management by way of partial promotion, you must convert the SQL files.

To convert SQL files:

1. Export the SQL files from the source installation of SAS Strategy Management. See "Exporting and Importing Strategy Management Data" in the *SAS Strategy Management: User's Guide*.

2. Use the applicable conversion procedure from the following table.

| SAS Strategy Management Versions | | |
| --- | --- | --- |
| **Source** | **Target** | **Conversion Procedure** |
| 2.4 | 5.1<br><br>5.2 | Use the conversion script that is available from SAS Technical Support. Ask for the conversion script in SAS Note 37807. |
| 2.4 | 5.3 | There is no conversion script tool available to convert the SQL files. You must perform one of following procedures:<br><br>• perform a two-phase SAS Migration Utility migration and installation:<br><br>  1. from SAS Strategic Performance Management 2.4 to SAS Strategy Management 5.2<br><br>  2. from SAS Strategy Management 5.2 to SAS Strategy Management 5.3<br><br>• run the SAS Strategy Management Data-tier Migration Tool<br><br>After the files are available on a SAS Strategy Management 5.3 system, you can click **Project** ⇨ **Export** to generate the SQL files and use the SAS Strategy Management 5.3 to 5.3 conversion script to add time and dimension information. (See next row). |
| 5.1<br>5.2 | 5.3 | There is no SQL conversion script tool available. To convert the files, you must perform one of the following procedures:<br><br>• perform a SAS Migration Utility migration and installation from SAS Strategy Management Versions 5.1 or 5.2 to Version 5.3<br><br>• run the SAS Strategy Management Data-tier Migration tool<br><br>After the files are available on a SAS Strategy Management 5.3 system, you can click **Project** ⇨ **Export** to generate the SQL files and use the SAS Strategy Management 5.3 to 5.3 conversion script to add time and dimension information. (See next row). |
| 5.3 | 5.3 | Use the Version 5.3 conversion script that is available from SAS Technical Support. This script works only with Version 5.3 SQL files. The script adds and updates time and dimension information. |

3. Import the SQL files into the target installation of SAS Strategy Management. See "Exporting and Importing Strategy Management Data" in the *SAS Strategy Management: User's Guide*.

*Appendix 2*

# Incorrect Web Addresses in Dashboards

Web addresses in SAS Strategy Management providers for SAS BI Dashboard are incorrect after a changehost is performed. The incorrect Web addresses affect the SAS Strategy Management indicators that appear in dashboards.

To correct a Web address in a SAS Strategy Management provider:

1. Log on to SAS Management Console.

2. Click the **Folders** tab.

3. Navigate to the location of the affected SAS Strategy Management provider. This location is the same name as the folder where you accessed the SAS Strategy Management provider in the SAS Information Delivery Portal (for example, Shared Data).

4. Right-click the provider that you want to modify. The file has an .imx extension.

5. Select **Write Contents to External File**.

6. Complete the fields in the target file window and click **Save**.

7. In a file navigation window, locate the external file that you just created. Right-click the file and select **Edit**.

8. Locate the authenticationServiceURL attribute in the ModelQuery tag.

9. Modify this Web address to the correct Web address and save the file.

10. In SAS Management Console, right-click the folder that contains the .imx file.

11. Select **Add Content From External File(s) or Directories**.

12. Navigate to the modified .imx file, select it, and click **Open**.

13. (Optional) Add a description.

14. Confirm that the original file that is stored in SAS Content Server has been overwritten and replaced.

15. Log on to a new SAS BI Dashboard session to confirm your changes.

*Appendix 3*
# Troubleshooting

## Errors Running the SAS Migration Utility

If you encounter errors running the SAS Migration Utility, consult the following table.

**Table A3.1** *Possible SAS Migration Utility Errors and Resolutions*

| Error | Description and Possible Cause | Resolution |
|---|---|---|
| Exception caused by missing MySQL password | The following message appears in the console window where SAS Migration Utility is running:<br><br>`The application script threw an exception: java.lang.Exception: Missing DBMS_USER_PASSWORD property in SASCONFIG\mysqldbs.properties`<br><br>SAS Migration Utility is not able to process the DBMS_USER_PASSWORD_E property in order to get the encoded MySQL password. It can process only the DBMS_USER_PASSWORD property that containsthe clear-text (unencoded) password, and this property does not exist in the mysqldbs.properties file. | In the console window where the SAS Migration Utility is running, choose **2** to quit if you have not done so already.<br><br>On the data tier of the SAS 9.2 system, edit the **SAS-config-dir \mysqldbs.properties** file and add a line like the following:<br><br>`DBMS_USER_PASSWORD=`*`password`*<br><br>Replace *password* with the clear-text MySQL password. Save the file and rerun SAS Migration Utility on this machine.<br><br>For security, after SAS Migration utility completes successfully, delete the DBMS_USER_PASSWORD line from mysqldbs.properties. Leave the DBMS_USER_PASSWORD_E line in place. |

# Problems Running SAS Data Integration Studio Jobs

## *Overview*

If you experience difficulties running a migrated job, check the following common issues first.

## *Broken Mappings*

After the migration process, there might be some broken mappings because of the difference between data models or for other reasons. To fix these problems:

1. Open the job in the Job Editor window.

2. Click **Map Job** to enable automatic column mapping.

   Clicking **Map Job** enables automatic mapping for the transformations in the current job. For more information, see "Maintaining Column Mappings" in the online Help for SAS Data Integration Studio.

3. If the transformations are correct, select **File** ⇨ **Save**.

## *Data Access Problems*

If there are problems with data access, make sure that table libraries, especially those for custom jobs, are updated to include new data locations, DBMS settings, and similar information.

## *Problems with Lookup Transformations*

If there are issues with a lookup transformation in a migrated job (for example, a table that does not connect to the lookup), replace the transformation with the **Lookup** transformation found on the **Transformations** tab, in the **Data** directory.