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Maintenance Planning for SAS[®] 9.2



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Maintenance Planning for SAS® 9.2

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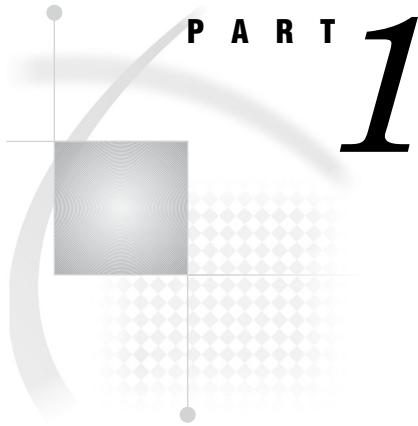
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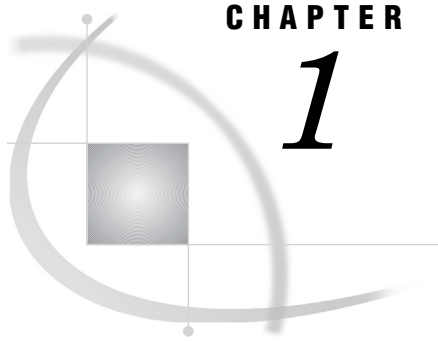
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CHAPTER

1

Introduction to Maintenance Documentation for SAS 9.2

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About This Book

This document describes the changes in a maintenance release that might affect your site. This document includes general information, such as the process for installing a maintenance release, that affects all SAS products. This document also provides more application-specific details about the tasks that you are required to perform to ensure that your programs and SAS applications work correctly after installing the maintenance release.

This document is organized into the following parts:

- “General Information about Maintenance Releases” provides a brief summary of this document and explains the concept of a maintenance release at SAS.
- “Second Maintenance Release for SAS 9.2” describes how to install a maintenance release for SAS 9.2. You are encouraged to install the latest maintenance release for SAS 9.2 before installing any maintenance releases for your products. This part contains the following information:
 - any requirements that you need to know before installing a maintenance release for SAS 9.2
 - how to install a maintenance release and how you can verify that a maintenance release was installed correctly
 - the configuration steps that you might need to perform after the installation is complete
 - how the maintenance release affects several SAS products and lists any required post-configuration steps
- “Maintenance Releases for SAS Products” provides more information about maintenance releases for additional SAS products. Not all SAS products have maintenance releases. Review the contents of this part to determine whether the products at your site have maintenance releases to apply.

Maintenance releases are cumulative. Therefore, this document is also cumulative and will be updated with each maintenance release.

Who Should Review This Document

If you have SAS 9.2 installed at your site, it is recommended that the individuals who installed SAS 9.2 review this document before installing any maintenance release. (For more information about the types of maintenance releases, see “Summary of Each Maintenance Release for SAS 9.2” on page 6 and “About Maintenance Releases for SAS Products” on page 6.)

If you are performing a new deployment of SAS 9.2, or if you are migrating to SAS 9.2 after the second maintenance release shipped, then the steps for applying a maintenance release do not apply to you. When you order SAS 9.2, you automatically receive SAS with the latest maintenance updates. For example, if you order SAS 9.2 now, then you would receive SAS 9.2 with all of the updates in the second maintenance release. However, when the third maintenance release for SAS 9.2 becomes available, then you will need to review this document to properly update your SAS deployment. In this case, the Software Order E-mail that you receive will state that you are receiving a maintenance release for an earlier order of SAS 9.2.

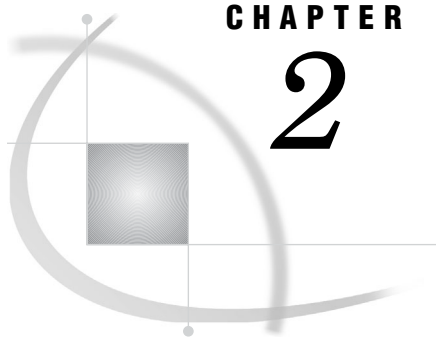
Note: In May 2010, SAS announced the availability of the third maintenance release for SAS 9.2. Customers are encouraged to apply the third maintenance release for SAS 9.2 at their site. If your Software Order E-mail lists SAS 9.2 TSM3 in the **Product** field, then you have received the third maintenance release. For more information, see <http://support.sas.com/software/maintenance/index.html>. △

Additional Resources

To identify all of the updates in a maintenance release, use this document in conjunction with the following documents and SAS Web sites:

- *What's New in SAS 9.2* describes new features and enhancements to products that are available in SAS 9.2.
- The Issues Addressed Web site for SAS 9.2 maintenance releases is compiled by SAS Technical Support and lists the SAS Notes that were addressed in a maintenance release.
- SAS 9.2 product-specific documents, such as a product's Help or user's guide, provide detailed information about how to use the new features and enhancements.

To access these documents and SAS Web sites, see <http://support.sas.com/software/maintenance>.



CHAPTER

2

Overview of Maintenance Releases

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Policy Statement for SAS Maintenance Releases

To optimize performance and support, SAS encourages you to install the SAS 9.2 maintenance releases. If you choose not to install a maintenance release, then you will automatically receive all of the content in that maintenance release when you next upgrade your version of SAS. For example, the third maintenance release will contain all of the new features and enhancements from the first, second, and third maintenance releases.

SAS has the following policy for maintenance releases:

- ☐ When you install a new SAS product, you receive the maintenance release that was available when the order for the new product was placed.
- ☐ SAS creates custom maintenance packages based on the software that is licensed at your site. You do not select the products to update.
- ☐ Maintenance releases are cumulative. In general, any hot fixes that were released since SAS 9.2 Phase 2 are included in each maintenance release. However, a hot fix for your product might have occurred after the maintenance release. For example, a hot fix for your product is released after the second maintenance release for SAS 9.2. To verify that you have the latest hot fixes for the products at your site, see Technical Support Hot Fixes at <http://support.sas.com>.
- ☐ Because of the dependencies between products, you cannot partially install a maintenance release.
- ☐ Maintenance releases update the SAS software that is currently deployed at your site.
- ☐ Before installing a maintenance release, it is recommended that you back up your current installation. For more information, see “Estimating Disk Space Requirements” on page 11.

Note: SAS maintenance releases do not include any updates to DataFlux products or to JMP. To access software updates for these products, see the following Web sites:

- ☐ the DataFlux Customer Care Portal at <http://dataflux.com/Customer-Care-Portal.aspx>

- JMP Software Updates at http://www.jmp.com/support/downloads/jmp_software_updates.shtml

\triangle

Summary of Each Maintenance Release for SAS 9.2

First Maintenance Release

The first maintenance release for SAS 9.2 was available in June 2009. This release includes localized Help (in several languages) for the SAS Intelligence Platform products and SAS Enterprise clients.

No hot fixes for SAS products are included in the first maintenance release.

Second Maintenance Release

The second maintenance release for SAS 9.2 was available in September 2009. This release includes software updates for Base SAS, the SAS Intelligence Platform products, and SAS Enterprise tools and clients.

This maintenance release increases product stability, enhances security options within OLAP cubes, expands the support in SAS/ACCESS for Relational Databases to include SQL Pass-Through, and expands in-database processes for Teradata. Additional services are provided to support SAS solutions. Administrative updates include enhanced support for redeploying Web applications and tools to identify deployed software.

Additional operating systems (such as Windows Server 2008) and third-party software (such as Java 6) are supported in this release. For more information, see “Additional Support for Operating Systems” on page 15 and “Additional Support for Third-Party Software” on page 16.

For more information about third-party support, support levels for operating systems, or name changes for SAS products, see the Product Advisory Notices page at <http://support.sas.com/techsup/pcn/>.

About Maintenance Releases for SAS Products

In addition to the maintenance releases for SAS 9.2, individual SAS products can have maintenance releases. For example, in November 2009, SAS Data Surveyor for Clickstream Data, SAS Risk Dimensions, and SAS Web Analytics shipped a maintenance release. Customers who are running on SAS 9.2 are encouraged to install these maintenance releases.

When installing a maintenance release for a SAS product, you might need to apply a maintenance release for SAS 9.2 first. These steps are documented in Part 2, Maintenance Releases for SAS 9.2. If you have already applied the latest maintenance release for SAS 9.2, then you do not need to repeat these steps. For more information about how you can determine whether you have the latest maintenance release installed at your site, see “Assessing the Effect on Products at Your Site” on page 12.

Maintenance releases are available for the following SAS products:

- Chapter 8, “SAS Analytics Platform,” on page 65
- Chapter 9, “SAS Customer Intelligence,” on page 67

- Chapter 10, “SAS Data Surveyor for Clickstream Data,” on page 69
- Chapter 11, “SAS Enterprise Miner,” on page 75
- Chapter 12, “SAS Forecast Server,” on page 83
- Chapter 13, “SAS OpRisk Monitor,” on page 85
- Chapter 14, “SAS OpRisk VaR,” on page 89
- Chapter 15, “SAS Risk Dimensions,” on page 91
- Chapter 16, “SAS Web Analytics,” on page 93

Understanding Product Release Numbers

SAS 9.2 contained two releases: SAS 9.2 Phase 1 and SAS 9.2 Phase 2. Each installation of SAS has a unique Technical Support number. To determine the version that you are running at your site, review the log when you open a SAS session.

Table 2.1 Technical Support Numbers for SAS 9.2 Installations

Product Name	Technical Support Number
SAS 9.2 Phase 1	TS1M0
SAS 9.2 Phase 2	TS2M0
The second maintenance release after SAS 9.2	TS2M2

Note: In SAS documentation or on SAS Web sites, you might see TS2Mx. This product number is a generic reference to all maintenance releases for SAS 9.2. △

SAS products use product release numbers. For example, SAS Web Report Studio 4.2 shipped in SAS 9.2 Phase 2. To determine the version that you are running at your site, see the About box in your SAS product.

After you install a maintenance release, the product release number for updated products changes to include maintenance-specific identification, such as M1. This maintenance number is incremented by one for each maintenance release of that product. However, a maintenance release (such as the second or third maintenance release for SAS 9.2) might not contain updates for all SAS products. Therefore, maintenance numbers can differ across SAS products. The following table shows how some of the product release numbers differ in the second maintenance release for SAS 9.2:

Table 2.2 Examples of Product Release Numbers for the Second Maintenance Release for SAS 9.2

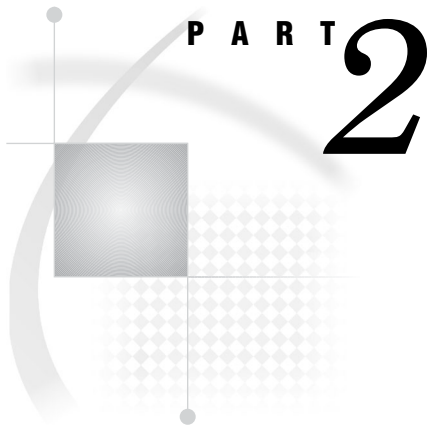
Product Name	Release Number
Base SAS	9.21_M1
SAS Data Integration Studio	4.21_M1
SAS Management Console	9.2_M1
SAS Web Report Studio	4.2_M1
SAS Web Report Studio Help and Documentation	4.2_M2

As this table shows, most products in the second maintenance release for SAS 9.2 have a maintenance release number of M1. However, the SAS Web Report Studio Help and Documentation product has a maintenance release number of M2.

The maintenance release numbers are different because the SAS Web Report Studio Help and Documentation product was delivered in the first maintenance release for SAS 9.2, which contained localized Help for the SAS Intelligence Platform products. In the first maintenance release, the maintenance release number of the SAS Web Report Studio Help and Documentation product was M1. Because this documentation is being updated again in the second maintenance release for SAS 9.2, the maintenance release number for SAS Web Report Studio Help and Documentation is incremented to M2.

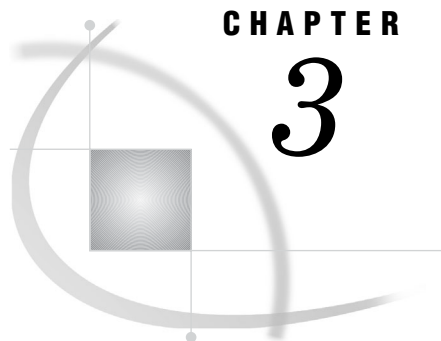
The other products in the table were not delivered in the first maintenance release for SAS 9.2, and because this is the first time that these products are included in a maintenance release, their maintenance release number is M1.

For more information about product numbers in SAS 9.2, see <http://support.sas.com/software/92/productnumbers.html>.



Maintenance Releases for SAS 9.2

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CHAPTER

3

Preparing Your Site for the Second Maintenance Release for SAS 9.2

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Estimating Disk Space Requirements

When you apply the second maintenance release for SAS 9.2, SAS automatically performs these tasks:

- backs up any file that will be modified during this update. For more information, see “Creating and Removing Backup Files” on page 12.
- explodes the EAR files for the Web applications.

Because of these tasks, the disk space requirement for the second maintenance release for SAS 9.2 is approximately double the size of your SAS 9.2 installation. This disk space requirement factors in increases to the SAS Software Depot, SAS installation and configuration directories, and deployed SAS Web applications. However, the specific size increase depends on how SAS is deployed at your site.

The results in the following example are for a site that has installed the English version of the SAS Enterprise BI Server that shipped in SAS 9.2 Phase 2. This site uses a single-machine deployment. After applying the second maintenance release for SAS 9.2, this site notices the following size increases:

Table 3.1 Example of Disk Space Requirements

Location	Original Disk Space Required	Disk Space Required after Applying Maintenance	Approximate Size of Increase
SAS Software Depot	8.3GB	13GB	1.5x
SAS installation directory	3.3GB	4.8GB	1.5x
SAS configuration directory	1.9GB	6.8GB	3.5x
Deployed SAS Web applications	3GB	5GB	1.5x

As this table shows, the largest increase was for the SAS configuration directory. Although these size increases can vary from site to site, this example helps you anticipate where more disk space might be needed before you apply the second maintenance release for SAS 9.2.

Creating and Removing Backup Files

Note: Before applying a maintenance release, it is recommended that you stop all your SAS servers and back up all the files in your SAS installation and configuration directories. Create backups for each machine in your deployment and use these backup copies if you need to restore your previous SAS deployment. △

When you apply a maintenance release, SAS automatically backs up any file in the SAS installation directory that will be modified during this update. These backups are saved in the maintenance directory for each product. The general format of this directory path is *SAS-installation-directory/product/release/maintenance*. Here are two examples of these backup directories:

- For Base SAS: *SAS-installation-directory/SASFoundation/9.2/maintenance*
- For SAS Web Report Studio 4.2: *SAS-installation-directory/SASWebReportStudio/4.2/maintenance*

If disk space is limited, then after the maintenance release has been installed, you can use the SAS Update File Cleanup Utility to remove the backup copies that SAS created. This utility must be run under the user ID that was used to install SAS. For more information about how to use this utility, see “Remove Update Backup Files” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

Assessing the Effect on Products at Your Site

Step 1: Review the List of Products to Be Updated

Before installing a maintenance release, you might want to review the list of products that will be updated on a machine. From the SAS Deployment Wizard, you can generate a Deployment Summary. For more information, see “About the Deployment

Summary” on page 19. The list of product updates could vary for each machine at your site. Therefore, you need to perform these steps on every machine that runs SAS 9.2.

Note: If no product updates are required for a machine, then you will not see a Deployment Summary, and your installation of the maintenance release is complete on that machine. △

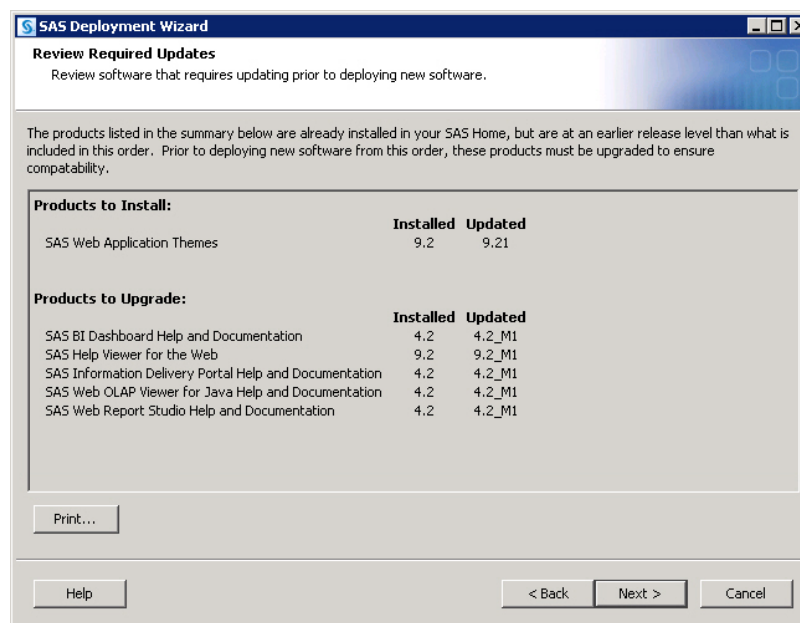
To view SAS products that will be updated on a machine:

- 1 Run the SAS Deployment Wizard. You must use the same user ID that you used to install SAS 9.2.

Table 3.2 How to Start the SAS Deployment Wizard

Operating System	How to Start the SAS Deployment Wizard
Windows	Double-click setup.exe in the highest-level directory of your SAS Software Depot.
UNIX	Execute setup.sh from the highest-level directory of your SAS Software Depot.
OpenVMS on HP Integrity	Define a symbol that points to setup_vms.exe . An example of this symbol could be <code>\$ setup_vms := \$path_to_depotsetup_vms.exe</code> . Start the SAS Deployment Wizard by using the symbol that you created.
z/OS	Run setup.rexx from the highest-level directory of your SAS Software Depot. To use a temporary directory other than /tmp , specify --templocationnew-temp-dir .

- 2 In the Review Required Updates step, click **Print** to print the Deployment Summary for your site. Alternatively, you can copy and paste this content into another document, such as an e-mail or a spreadsheet.



- 3 To exit the SAS Deployment Wizard without installing any updates, click **Cancel**. After reviewing the contents of the Deployment Summary and assessing the effect on products at your site, you can install these product updates by restarting the SAS Deployment Wizard.

Step 2: Review Post-Configuration Requirements for Each Product

After obtaining this list of products, see Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43 to review the post-configuration information for each topic. Reviewing these product topics now will enable you to do the following:

- prepare for any feature changes that will affect your site
- plan for additional time to complete any post-configuration steps for each updated product

By reviewing this information before installing the maintenance release, you can customize the process for installing a maintenance release at your site. If no topic is listed for a product, then no additional steps are required for that product.

Effect on Customizations

Customizations to EAR Files

In the second maintenance release for SAS 9.2, you must rebuild and redeploy the enterprise archive (EAR) files for all Web applications at your site. (Examples of Web applications include SAS Web Report Studio and the SAS Information Delivery Portal.) Therefore, customizations that you made to the EAR files after initial deployment might be lost.

Here are examples of customizations that you might have specified in your EAR files:

- changes to the context root for Web applications, such as the SAS Information Delivery Portal and the SAS BI Dashboard. After your initial installation of SAS, you might have customized the URL that is used to access a SAS Web application at your site. However, after applying the second maintenance release for SAS 9.2, this customization is lost, and you must specify this customization again in order for your site-specific URL to work.
- customizations for Web authentication. For more information, see the “Restore Customizations for Web Authentication” topic for your Web application server in “Configuring Your Web Application Servers” on page 28.

Customizations in SAS Management Console

After your initial installation of SAS, you might have configured properties or specified settings for the SAS Web applications by using the Configuration Manager plug-in for SAS Management Console. After applying the second maintenance release for SAS 9.2, these customizations are lost. Before installing the second maintenance release for SAS 9.2, note any customizations that you made so you can restore these customizations after applying the maintenance release. For more information, see “Using Configuration Manager” in the *SAS Intelligence Platform: Web Application Administration Guide*.

Effect on Web Application Servers

If you are running a Web application server, then after installing the maintenance release you need to manually create two new queues for workflows. SAS products that use these workflow queues are shipping after the second maintenance release for SAS 9.2, so it is recommended that you create these workflows after you install the second maintenance release for SAS 9.2. If necessary, additional configuration steps for your product are available from Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43.

To create these workflow queues after installing the second maintenance release for SAS 9.2, see “Configuring Your Web Application Servers” on page 28. Depending on how the Web application servers are set up at your site, some configuration tasks might be done automatically. However, if you manually configured your Web application server after your initial installation of SAS 9.2, then you must manually create the two new queues for the workflows. If you do not configure these queues after installing the maintenance release, then you could see unpredictable results with your SAS deployment. Also, configuring these workflow queues ensures that your SAS deployment is the same as a new deployment of SAS 9.2.

To ensure that you configure your Web application server correctly, review all of the configuration tasks for your server and determine which tasks must be completed at your site.

Planning Information for Specific Operating Environments

Additional Support for Operating Systems

Beginning with the second maintenance release for SAS 9.2, the following operating systems are supported.

- ☐ Windows Server 2008 (for 32-bit, 64-bit, and Itanium environments)
- ☐ SuSE SLES 11

To determine the level of support for each operating environment (for example, exactly which editions of Windows Server 2008 are supported), see <http://support.sas.com/resources/sysreq/hosts/>.

Installing a Maintenance Release in a UNIX Environment

Note: The **tar** command is the recommended method for copying and moving a SAS deployment in UNIX because this command preserves the date-and-time stamps of the files. The following information is relevant only if you used the **cp** command without the **-p** option (which is required to preserve the date-and-time stamps on your files) to copy your SAS deployment from one location to another. Δ

The installation process for a maintenance release uses the date-and-time stamps for some non-versioned files to determine whether the file needs to be updated. If you copied a deployment of SAS 9.2, then the maintenance release might not install properly because the date-and-time stamps on the copied files might be different from the deployment that was installed using the SAS Deployment Wizard. In order for the maintenance release to install correctly, the date-and-time stamps of the copied files must be February 20, 2009.

To change the date-and-time stamp of your files to February 20, 2009, enter the following command from the SAS installation directory:

```
find . | xargs touch -t 200902200000.00
```

You must run this UNIX command under the user ID that was used to install SAS 9.2. You can modify the attributes of these SAS files under that user ID only.

Installing a Maintenance Release in a z/OS Environment

If you are installing a maintenance release in a z/OS environment, you should not complete the steps described in “How to Install the Second Maintenance Release for SAS 9.2” on page 21 and “Restarting Servers” on page 24. Instead, you should refer to the following resources:

- Installation and maintenance instructions for z/OS environments are available from Installation Note 36008 at <http://support.sas.com/kb/36/008.html>.
- After you install the maintenance release, you need to restart your SAS servers. For more information, see “Starting and Stopping SAS Servers on z/OS” in the *SAS Intelligence Platform: System Administration Guide*.

Note: If your z/OS environment does not have Java or an X11 display, then you used the `basicins.rexx` script to install SAS 9.2. Before installing the second maintenance release for SAS 9.2, contact SAS Technical Support for instructions on how to install the maintenance release at your site. Δ

Updates to Third-Party Software

Additional Support for Third-Party Software

Beginning with the second maintenance release for SAS 9.2, the following third-party components are supported.

Table 3.3 New Support for Third-Party Components

Third-Party Component	Additional Considerations
Java 6	Your Web application server must also support Java 6.
Firefox 3	None.

Third-Party Component	Additional Considerations
WebLogic 10.0	None.
WebLogic 10gR3	<ul style="list-style-type: none"> □ Java 6 is required to use WebLogic 10gR3. □ Beginning with WebLogic 10.gR3, the official product name is Oracle WebLogic Server. Previously, the product name was BEA WebLogic Server. When reviewing your product documentation, you might see either term used. However, both names refer to a WebLogic Server.

Software Requirements for SAS 9.2

Verify that your site is using the required versions of third-party software for the second maintenance release for SAS 9.2. For example, if you are using an Oracle WebLogic Server, an IBM WebSphere Application Server, or a JBoss Application Server, you might need to apply a patch before installing the maintenance release.

For more information about the requirements for SAS 9.2, see <http://support.sas.com/resources/thirdpartysupport/v92/>.

Upgrading a SAS 9.2 (TS1M0) Installation

After you install the second maintenance release for SAS 9.2, the release number in the SAS log is TS2M2.

When you apply a maintenance release, the SAS Deployment Wizard automatically upgrades your SAS installation directories to include updated versions of all the products that are currently deployed. Because of product dependencies, you cannot choose which products are updated. If you have a multi-machine deployment, you need to update all machines when you apply maintenance.

The maintenance releases for SAS 9.2 use the functionality in SAS 9.2 TS2M0 as a baseline. If you are running SAS 9.2 TS1M0 at your site, then before installing a maintenance release, consider the following:

- If you are running in a Windows environment, then the SAS Deployment Wizard automatically upgrades the contents of your SAS installation directories to include the content in the maintenance release.
- If you are running in a UNIX or z/OS environment, then the SAS Deployment Wizard does not automatically upgrade your SAS 9.2 TS1M0 installation. For these operating environments, you must specify a new SAS installation directory. Any customizations, such as configuration scripts and librefs, need to be created for this new SAS installation directory. Until you delete the SAS installation directory for SAS 9.2 TS1M0, your installation of SAS 9.2 TS1M0 continues to be available to users at your site.

Renewing Your Software License for SAS Products

Some SAS 9.2 products that depend on the SAS middle tier are now implementing SETINIT checking. To make the SETINIT accessible to the SAS middle tier, the SETINIT needs to be loaded into the metadata. In the October 2009 release of SAS, a new utility was added to the SAS Deployment Manager. This utility enables you to

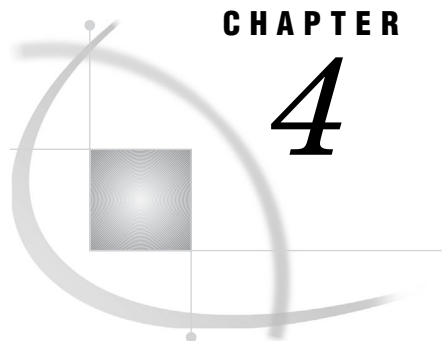
update the SETINIT in the metadata. For more information about how to run this utility, see “Renewing Your Software License for SAS Solutions” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

Restoring the Availability of User Home Folders

Note: This issue applies if the language for your installation is other than English. △

If you are applying the second maintenance release for SAS 9.2 (TS2M2) to a localized installation of SAS 9.2 (TS2M0), then the content and configuration of all the user home folders might appear lost after the maintenance release is applied. Although the content is not lost, these folders are no longer accessible to users at your site. To circumvent this problem, see SAS Note 39176 at <http://support.sas.com/kb/39/176.html>.

This problem is fixed in the third maintenance release for SAS 9.2. For more information about how to request the third maintenance release for SAS 9.2, see <http://support.sas.com/maintenance/index.html>.



CHAPTER

4

Installing the Second Maintenance Release for SAS 9.2

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About the Installation Files

About the Deployment Summary

During the installation process, a Deployment Summary is saved in the *SAS-installation-directory/InstallMisc/InstallLogs/* directory.

Note: A Deployment Summary for each previous installation is saved in the home directory of the user ID that was used to install SAS. The Deployment Summary for the latest installation of the maintenance release is always available from *SAS-installation-directory/InstallMisc/InstallLogs/*. △

The Deployment Summary contains the following information:

- a list of the products that were installed and upgraded. For each product, there are two columns of release numbers.
 - The Installed column lists the product release number that was on your machine before applying the maintenance release.
 - The Updated column lists the product release number that is on your machine after applying the maintenance release.

Here is an example of output that you might see in the Deployment Summary:

Update Summary

Products to Install:	Installed	Updated
SAS Web Application Themes	9.23	9.24

Products to Upgrade:	Installed	Updated
SAS Management Console	9.2_M1	9.2_M2
SAS Deployment Tester Plug-in for SAS Management Console	1.3_M1	1.3_M2
SAS Table Server Plug-ins for SAS Management Console	9.2_M1	9.2_M2
SAS Web Infrastructure Client	9.2_M1	9.2_M2
SAS Forecast Server Plug-ins for SAS Management Console	3.1_M2	3.1_M3
SAS ESRI Map Manager Plug-in for SAS Management Console	9.2_M1	9.2_M2
SAS Enterprise Miner Plug-in for SAS Management Console	6.1_M1	6.1_M2
SAS Foundation Services	2.1_M1	2.1_M2
SAS Web Infrastructure Platform	9.2_M1	9.2_M2
SAS Analytics Platform	1.5_M2	1.5_M3
SAS Information Delivery Portal	4.2_M1	4.2_M2
SAS Web Report Studio	4.2_M1	4.2_M2
SAS Shared Services	9.2_M1	9.2_M2
SAS Information Delivery Portal JPS Extension	4.2_M1	4.2_M2
SAS BI Dashboard	4.2_M1	4.2_M2
SAS Help Viewer for the Web	9.2_M2	9.2_M3
SAS Information Delivery Portal Help and Documentation	4.2_M2	4.2_M3

For more information, see “Understanding Product Release Numbers” on page 7.

For each product in the Deployment Summary, review the information in Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43 to determine the configuration steps that are necessary for your site. If you do not complete these configuration steps, then you might experience unexpected behavior or errors that will affect the use of your SAS software.

- a log of whether each product update installed successfully.

Installation

Completed successfully - SAS Deployment Manager
 Completed successfully - SAS Management Console (Update)
 Completed successfully - SAS Deployment Tester Plug-in for SAS Management Console (Update)
 Completed successfully - SAS Table Server Plug-ins for SAS Management Console (Update)
 Completed successfully - SAS Web Infrastructure Client (Update)
 Completed successfully - SAS Forecast Server Plug-ins for SAS Management Console (Update)
 Completed successfully - SAS ESRI Map Manager Plug-in for SAS Management Console (Update)
 Completed successfully - SAS Enterprise Miner Plug-in for SAS Management Console (Update)
 Completed successfully - SAS Foundation Services (Update)
 Completed successfully - SAS Web Infrastructure Platform (Update)
 Completed successfully - SAS Analytics Platform (Update)
 Completed successfully - SAS Information Delivery Portal (Update)
 Completed successfully - SAS Web Report Studio (Update)
 Completed successfully - SAS Shared Services (Update)
 Completed successfully - SAS Information Delivery Portal JPS Extension (Update)
 Completed successfully - SAS BI Dashboard (Update)
 Completed successfully - SAS Help Viewer for the Web (Update)
 Completed successfully - SAS Information Delivery Portal Help and Documentation (Update)

Use this log to verify that all of the updates in the maintenance release installed successfully. If you find any failures, then review the audit files for that product. For more information, see “About the Audit Files for a Maintenance Release” on page 21.

About the Audit Files for a Maintenance Release

Audit files identify all of the changes that occurred during an installation of a maintenance release. The audit files list each file that was added, deleted, or replaced. All audit files are saved in the *SAS-installation-directory/InstallMisc/InstallLogs/Maintenance* directory.

For each SAS product that is updated in a maintenance release, there are two audit files:

- *product-identification_preexec.log* lists all of the files that will be updated when you install the maintenance release.
- *product-identification_postexec.log* lists all of the files that were updated when you installed the maintenance release.

In the filename, *product-identification* contains the 12-byte code of the SAS product that is associated with that audit file. To determine the name of the SAS product that is associated with a 12-byte code, you can generate a deployment registry report. For information about how to generate this report, see SAS Note 36394 at

<http://support.sas.com/kb/36/394.html>.

This report lists all of the SAS 9.2 products that are installed in the SAS installation directory. For example, if your deployment includes SAS Web Report Studio 4.2, then this report would include the following entry:

```
Host: wx6
Product Code: citationweb
Version: 4.2
Display Name: SAS Web Report Studio
Display Version: 4.2_M1
```

From this entry, you can determine that a product code of citationweb represents SAS Web Report Studio, so any audit files with “citationweb” in the filename are for SAS Web Report Studio.

How to Install the Second Maintenance Release for SAS 9.2

When installing a maintenance release in a multiple machine deployment, you must apply the maintenance release in a specific order. For more information, see “Installation Order Rules for Multiple Machine Deployments” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

Note: If you are installing in a z/OS environment, see the installation and maintenance instructions in Installation Note 36008 at <http://support.sas.com/kb/36/008.html>. △

To install the second maintenance release for SAS 9.2:

- 1 Terminate all active SAS sessions, daemons, spawners, and servers. It is important to stop the SAS servers in the inverse order that they were started. For more information, see “Overview of Server Operation” in the *SAS Intelligence Platform: System Administration Guide*.
- 2 Verify that all machines where you are installing the maintenance release have SAS 9.2 installed.

Note: When installing a maintenance release, you must use the same operating system accounts that you used to install SAS 9.2. △

- 3 For each machine in your deployment, start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot. You can start the SAS Deployment Wizard in the following ways:

Table 4.1 How to Start the SAS Deployment Wizard

Operating System	How to Start the SAS Deployment Wizard
Windows	Double-click setup.exe in the highest-level directory of your SAS Software Depot.
UNIX	Execute setup.sh from the highest-level directory of your SAS Software Depot.
OpenVMS on HP Integrity	Define a symbol that points to setup_vms.exe . An example of this symbol could be <code>\$ setup_vms := \$path_to_depotsetup_vms.exe</code> . Start the SAS Deployment Wizard by using the symbol that you created.

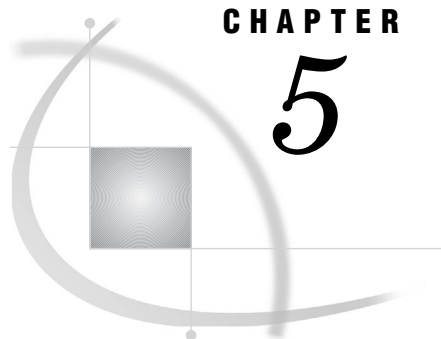
If any product updates are required, then the SAS Deployment Wizard goes into update mode and installs those product updates on that machine. When the installation is complete, the Deployment Summary opens. For more information about the contents of this file, see “About the Deployment Summary” on page 19.

Note: Updates that are installed in a maintenance release apply only to software that is already installed at your site. No new software is installed during a maintenance installation. If your software order includes new software, then you need to restart the SAS Deployment Wizard after applying the maintenance release in order to install the new products. △

If a machine does not require any product updates, then the SAS Deployment Wizard will not go into update mode, and the installation on that machine is complete. Click **Cancel** to exit the SAS Deployment Wizard.

For more information, see “How the SAS Deployment Wizard Updates Software” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

- 4 For each machine in your deployment, complete the required configuration steps. For more information, see Chapter 5, “Maintenance Configuration for the Second Maintenance Release for SAS 9.2,” on page 23.
- 5 For each machine in your deployment, determine whether there are any additional configuration steps for products that are licensed at your site. For more information, see Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43.



CHAPTER

5

Maintenance Configuration for the Second Maintenance Release for SAS 9.2

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Restarting Servers

About Restarting Your Servers

After you install a maintenance release, you need to restart your SAS servers and spawners. If your SAS installation is a planned deployment, then you must restart the servers in a specific order. For information about how to start these servers, see “Overview of Server Operation” in the *SAS Intelligence Platform: System Administration Guide*.

Note: If you installed the maintenance release in a z/OS environment, see “Starting and Stopping SAS Servers on z/OS” in the *SAS Intelligence Platform: System Administration Guide* for instructions on how to restart SAS servers in that operating environment. △

Restarting the SAS Metadata Server and Supporting SAS Servers

If your SAS installation is a planned deployment, then you must restart the servers in the following order:

- 1 SAS Metadata Server.
- 2 other SAS servers, such as the object spawner, the SAS/CONNECT spawner, the SAS OLAP Server, and the SAS Table Server. (Next, you will restart SAS Remote Services and the SAS Analytics Platform. For more information, see “Restarting SAS Remote Services” on page 24 and “Restarting the SAS Analytics Platform Server” on page 25.)

Note: The SAS servers for your site depend on the SAS products that you have licensed. You might not have all of these servers at your site. If your site licenses products that depend on a particular server, you should apply any product updates to that server before restarting the server. If you do not apply these product updates now, then you will have to restart the server again after installing the product updates. For more information, see Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43. △

Restarting SAS Remote Services

Restarting in a Windows Environment

If you are in a Windows operating environment and you configured SAS Remote Services to run as a Windows service, then do not use the Windows services manager or reboot to start SAS Remote Services. When you restart SAS Remote Services for the first time after installing the maintenance release, you must restart it by entering the

following command at a DOS prompt: *SAS-configuration-directory\Lev1\Web\Applications\RemoteServices\RemoteServices.bat restart*.

Note: If you do not use this command to restart SAS Remote Services, then you will see errors when you start your Web application server, and the SAS Web applications will not start successfully. Δ

Restarting in a UNIX Environment

If you are in a UNIX operating environment, then SAS Remote Services automatically restarts when you run the *sas.servers* script. For more information, see “Use the *sas.servers* Script to Start, Stop, or Restart All Servers or to Display the Status of Servers” in the *SAS Intelligence Platform: System Administration Guide*.

Restarting the SAS Analytics Platform Server

Why You Must Restart This Server

After installing a maintenance release, you must restart the SAS Analytics Platform server so that any SAS products that use this server (such as SAS Enterprise Miner, SAS Forecast Server, and SAS Model Manager) incorporate the changes from the maintenance release.

Restarting in a Windows Environment

To restart the SAS Analytics Platform server in a Window environment, use one of these methods:

- ☐ From the **Start** menu, select **Programs ► SAS ► SAS Configuration ► Config-Lev<num> ► Analytics Platform Server - Start**.
- ☐ At a command prompt, navigate to the *SAS-configuration-directory\Lev1\AnalyticsPlatform* directory and type **AnalyticsPlatform.bat start**.

Note: When you initially installed SAS, you might have selected **Windows options: run as managed scripts or services** in the SAS Deployment Wizard. If you selected this option, then the SAS Analytics Platform is run as a Windows Service. Generally, you can start the service by using the Services window. However, the first time that you restart the server after installing a maintenance release, you must use either the **Start** menu or a command prompt. If you restart the server from the Services window, then the SAS Analytics Platform does not pick up the updates in the maintenance release. After you have restarted the server from either the **Start** menu or at a command prompt once, the next time that you restart the server you can again use the Services window. Δ

Restarting in a UNIX Environment

To restart the SAS Analytics Platform server:

- 1 Verify that your X server is running and is available.
- 2 At the UNIX prompt, navigate to the directory where the SAS Analytics Platform server is configured. Usually, this directory is *SAS-configuration-directory/Lev1/AnalyticsPlatform*.
- 3 If the SAS Analytics Platform server is currently running, type **./AnalyticsPlatform.sh stop**.

- 4 To start the SAS Analytics Platform server, type
`./AnalyticsPlatform.sh start.`

Restarting Web Application Servers

Before you restart the Web application servers, you must complete the following tasks:

- 1 “Rebuilding SAS Web Applications” on page 26
- 2 “Configuring Your Web Application Servers” on page 28
- 3 “Redeploying SAS Web Applications” on page 38

Rebuilding SAS Web Applications

About Rebuilding EAR Files

After installing the second maintenance release for SAS 9.2, you must use the SAS Deployment Manager to rebuild the enterprise archive (EAR) files for all Web applications at your site. Because the EAR files are rebuilt, you might lose any customizations that you added to the EAR files after initial deployment. For more information, see “Effect on Customizations” on page 14.

Note: If you are installing the second maintenance release for SAS 9.2 on a WebSphere Application Server, you must delete the *SAS-configuration-directory\Lev1\Web\Temp\WebSphere* directory before you rebuild and redeploy your SAS Web applications. △

When you rebuild Web applications by using the SAS Deployment Manager, the EAR files for the Web applications are automatically exploded and placed in two directories:

- *SAS-configuration-directory\Lev1\Web\Staging*. The approximate size of the EAR files for SAS Enterprise BI Server is 2 GB.
- *SAS-configuration-directory\Lev1\Web\Staging\exploded*. The approximate size of the Exploded directory is 2 GB. The size of the Exploded directory is similar to the size of the EAR files in the *SAS-configuration-directory\Lev1\Web\Staging* directory.

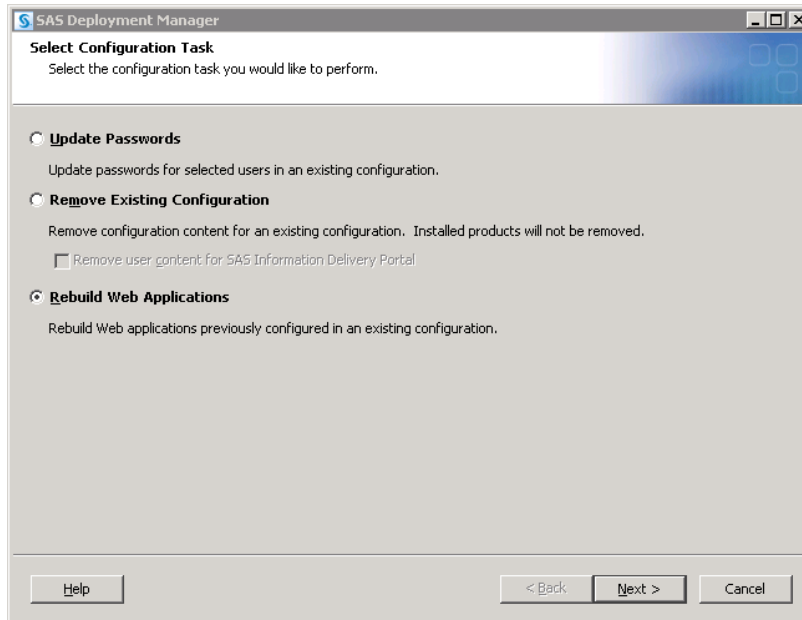
Note: If you are using the second maintenance release for SAS 9.2, and you want to save disk space, you can delete the unwanted directories below the *SAS-configuration-directory\Lev1\Web\Staging\exploded* directory. However, if you are using WebLogic as your Web application server, do not delete the exploded copy of the **sas.wip.services9.2** EAR file. △

Rebuild One or More Web Applications

To rebuild one or more Web applications:

- 1 Verify the status of the Web application server.
 - Shut down the JBoss application server. This is required because the SAS Deployment Manager modifies the existing configuration for JBoss when it rebuilds the Web applications.
 - The WebLogic Administration Server and Node Manager must be running when you rebuild Web applications.

- Shut down the WebSphere Application Server, but leave the dmgr and nodeagent running.
- 2 Verify that the SAS Metadata Server is running.
- 3 Open the SAS Deployment Manager.
 - If you are running in a Windows environment, double-click the **config.exe** file in the *SAS-installation-directory\SASDeploymentManager\9.2* directory.
 - If you are running in a UNIX environment, execute the **config.sh** file.



- 4 In the **Select Configuration Task** panel, select **Rebuild Web Applications**, and then click **Next**.
- 5 In the **Select Configuration Directory/Level** panel, specify the configuration directory and the level (for example, Lev1) where you want to rebuild the applications, and then click **Next**.
- 6 In the **Specify Connection Information** panel, enter the user ID and password for an unrestricted administrative user (for example, sasadm@saspw), and then click **Next**.
- 7 In the **Select Web Applications to Rebuild** panel, select the applications that you want to rebuild, and then click **Next**.
- 8 Click **Start** to start the rebuild. The SAS Deployment Manager builds the EAR files for the selected applications.

For more information, see “Rebuilding the SAS Web Applications” in the *SAS Intelligence Platform: Web Application Administration Guide*.

Rebuilding SAS Web Application Themes

If you are rebuilding theme content, you might need to stop and restart the Web application server as follows:

- If SAS Web Application Themes is deployed as an EAR file in a Web application server, then the first time that a custom theme is deployed, the Web application server must be stopped and restarted. Any subsequent modifications to the custom

theme do not require a restart of the Web application server unless the theme descriptors have been changed.

- If SAS Web Application Themes is exploded and deployed in an HTTP server (such as Apache HTTP Server), then the Web application server does not need to be restarted based on any theme changes.

For all other Web applications, you do not need to stop and restart the Web application server.

Configuring Your Web Application Servers

About Configuring Your Web Application Servers

After installing the second maintenance release for SAS 9.2, you must complete additional tasks to configure your Web application servers. For more information about why you need to complete these tasks, see “Effect on Web Application Servers” on page 15.

Some of these configuration tasks are optional. For example, some SAS applications use Java Messaging Service (JMS) facilities when sending messages. If you want to secure these messages to prevent unauthorized access, then you must complete the tasks for setting JMS security. If you do not set JMS security, then these messages could be intercepted by unauthorized applications.

To ensure that you configure your Web application server correctly, review all of the configuration tasks for your server and determine which tasks must be manually completed at your site. For instructions on how to configure your Web application server, see the following topics:

- “WebLogic Server” on page 28
- “WebSphere Application Server” on page 32
- “JBoss Application Server” on page 34

WebLogic Server

About Configuring Your WebLogic Server

To configure your WebLogic Server, you must complete the following tasks. Depending on how the WebLogic Server is set up at your site, some configuration tasks might be completed automatically. For example, you might find that the WorkflowCommandQueue and WorkflowEventsQueue are created automatically. Therefore, you do not need to manually create these queues.

In addition, some tasks might be optional. You must determine whether these optional tasks need to be completed at your site.

To ensure that your server is configured correctly, you should review all of the configuration tasks to verify that each task is complete.

Note: If you deployed your Web applications across multiple servers, then complete these tasks on the server where SAS Shared Services are deployed. Typically, this server is named SASServer1. \triangle

- 1 “Create WorkflowCommandQueue” on page 29
- 2 “Create WorkflowEventsQueue” on page 29
- 3 “Set the JMS Security System Property” on page 29

- 4 (Optional) “Configure JMS Security” on page 30
- 5 “Secure Your WebLogic Domain” on page 31
- 6 (Optional) “Restore Customizations for Web Authentication” on page 32

Create WorkflowCommandQueue

If you manually configured your Web application server after your initial installation of SAS, then you must complete the following steps.

- 1 Open the WebLogic Administration Console.
- 2 In the **Domain Structure** panel, select **Services ► Messaging ► JMS Modules**, and then click **sasJmsSystemResource**.
- 3 In the **Summary of Resources** panel, click **New**.
- 4 In the **Create a New JMS System Module Resource**, select **Queue**, and then click **Next**.
- 5 In the **JMS Destination Properties** panel, specify the following information:
 - ☐ In the **Name** field, enter **WorkflowCommandQueue**.
 - ☐ In the **JNDI Name** field, enter **sas/jms/WorkflowCommandQueue**.
 Click **Next**.
- 6 In the **Properties** panel, select **SASJMSServer1SubDeployment** and click **Finish**.

Note: Depending on when you installed SAS, you might see **SASJMSServerSubDeployment** instead. If so, then select this subdeployment value and click **Finish**. △

Create WorkflowEventsQueue

If you manually configured your Web application server after your initial installation of SAS, then you must complete the following steps.

- 1 Open the WebLogic Administration Console.
- 2 In the **Domain Structure** panel, select **Services ► Messaging ► JMS Modules**, and then click **sasJmsSystemResource**.
- 3 In the **Summary of Resources** panel, click **New**.
- 4 In the **Create a New JMS System Module Resource**, select **Queue**, and then click **Next**.
- 5 In the **JMS Destination Properties** panel, specify the following information:
 - ☐ In the **Name** field, enter **WorkflowEventsQueue**.
 - ☐ In the **JNDI Name** field, enter **sas/jms/app/WorkflowEventsQueue**.
 Click **Next**.
- 6 In the **Properties** panel, select **SASJMSServer1SubDeployment** and click **Finish**.

Note: Depending on when you installed SAS, you might see **SASJMSServerSubDeployment** instead. If so, then select this subdeployment value and click **Finish**. △

Set the JMS Security System Property

When you apply the second maintenance release for SAS 9.2, you must specify whether to use JMS security. You can specify this system property in the start-up script of the application server or in the WebLogic Server Administration Console (if you start your servers from this console). Complete the steps that are appropriate for your site. If

you turn on JMS security, then you must also complete the steps in “Configure JMS Security” on page 30.

start-up script for your application server

Specify either of the following system properties:

- ☐ To turn off JMS security, specify
`-Dsas.jms.authentication.decorator=false.`
- ☐ To turn on JMS security, specify
`-Dsas.jms.authentication.decorator=true.`

WebLogic Server Administration Console

Complete these steps:

- 1 In the **Domain Structure** panel, select **Environment ► Servers**. A list of the servers that are available at your site appears.
- 2 From the **Summary of Servers** page, select a server. A page that lists the current settings for that server opens.
- 3 Click the **Server Start** tab.
- 4 In the **Change Center** panel, click **Lock & Edit**. Now, you can edit the server settings.
- 5 In the **Arguments** field, add the system property for JMS security.
 - ☐ To turn off JMS security, specify
`-Dsas.jms.authentication.decorator=false.`
 - ☐ To turn on JMS security, specify
`-Dsas.jms.authentication.decorator=true.`

Click **Save**.

- 6 In the **Change Center** panel, click **Activate Changes**.
- 7 Restart the server for the changes to take effect.
- 8 Repeat these steps for each server on the **Summary of Servers** page.

Configure JMS Security

This step is required only if you turned on JMS security. For more information, see “Set the JMS Security System Property” on page 29.

If JMS security is enabled, you must complete these additional steps:

- 1 Edit the web.xml files for BIDashboard and SharedServices to replace `<res-auth>Container</res-auth>` with `<res-auth>Application</res-auth>`.

The web.xml files are available from the following locations:

- ☐ `sas.bidashboard4.2.ear\sas.eventsgenerationframework.war\WEB-INF\web.xml`
- ☐ `sas.shared9.2.ear\sas.shared.services.war\WEB-INF\web.xml`
- ☐ `sas.shared9.2.ear\sas.workflow.war\WEB-INF\web.xml`

- 2 Create a WebLogic user named sasjms.

- a Open the WebLogic Server Administration Console.
- b In the **Domain Structure** panel, select **Security Realms**.
- c On the **Summary of Security Realms** page, select **myrealm**.
- d On the **Settings for myrealm** page, click the **Users and Groups** tab.
- e On the **Users and Groups** tab, click **New**.
- f On the **Create a New User** page, specify the following values:
 - ☐ In the **Name** field, enter **sasjms**.
 - ☐ In the **Description** field, enter **SAS Secure JMS User**.

- In the **Password** and **Confirm Password** fields, enter the password that you selected for this user.

Click **OK**.

- 3 To secure JMS resources, you should create a root level policy. Complete these steps to restrict all JMS access to the sasjms user.
 - a Open the WebLogic Administration Console.
 - b In the **Domain Structure** panel, select **Security Realms**.
 - c On the **Summary of Security Realms** page, select **myrealm**.
 - d On the **Settings for myrealm** page, click the **Roles and Policies** tab.
 - e Click the **Realm Policies** tab, and then expand the **Root Level Policies** row in the table.
 - f In the JMS row, select **View Policy Conditions**.
 - g On the **Edit Root Level Policies** page, click **Add Conditions**. The Edit Root Level Policies wizard opens.
 - h In the **Choose a Predicate** panel, select **User** from the **Predicate List** drop-down list, and then click **Next**.
 - i In the **Edit Arguments** panel, enter **sasjms** as the role argument name. Click **Add**, and then click **Finish**. A summary of the root level policies opens.
 - j In the **Policy Conditions** area, select the **Group: everyone** check box. Click **Remove**, and then click **Save**.

Secure Your WebLogic Domain

The process for securing your WebLogic domain depends on your operating environment.

Windows operating environments

SAS Deployment Wizard creates a sample WebLogic domain. This domain could contain files with sensitive information. For example, users at your site might have read permission to log files and other files that are managed by the WebLogic Server. If these files must be accessible to users at your site, it is recommended that you restrict access to a controlled group.

UNIX operating environments

During installation, the SAS Deployment Wizard creates a sample WebLogic domain. Access to the files in this domain is restricted to the user ID that was used to install the maintenance release. Because of this restricted access, other users cannot execute scripts in the bin directory of the domain. You might want to specify similar security settings for the domain directory in your production environment.

Users at your site might have read permission to the log files and other files that are managed by the WebLogic Server. To ensure that the files are created with the appropriate access right, you must use the **umask** command. For more information, see the UNIX man page for **umask**.

To remove read permission for everyone at your site, you must also specify the following code:

```
cd SAS-configuration-directory/Lev1/Web
chmod --R go= SASDomain
chmod --R go= Common/SASDomain
chmod go= Common/login.config
```

If these files must be accessible to users at your site, it is recommended that you restrict access to a controlled group.

Restore Customizations for Web Authentication

After installing a maintenance release, here are the high-level tasks that you must complete to restore any customizations for Web authentication.

- 1 Modify Logon Manager.
- 2 Include SAS JAR files in the System Classpath.
- 3 Set the CLASSPATH for the Remote Services JVM and restart.
- 4 Start the WebLogic server.
- 5 Log on to verify the Web authentication configuration.

For more information about each task, see the corresponding topics in *Configuring Oracle WebLogic Server 9.2 for Web Authentication with SAS 9.2 Web Applications*. This document is available from <http://support.sas.com/resources/thirdpartysupport/v92m2/appservers/ConfiguringWLSWebAuth.pdf>.

WebSphere Application Server

About Configuring Your WebSphere Application Server

To configure your WebSphere Application Server, you must complete the following tasks. Depending on how the WebSphere application server is set up at your site, some configuration tasks might be completed automatically. For example, you might find that the WorkflowCommandQueue and WorkflowEventsQueue are created automatically. Therefore, you do not need to manually create these queues.

In addition, some tasks might be optional. You must determine whether these optional tasks need to be completed at your site.

To ensure that your server is configured correctly, you should review all of the configuration tasks to verify that each task is complete.

- 1 “Set File Security in UNIX Environments” on page 32
- 2 “Create WorkflowCommandQueue” on page 32
- 3 “Create WorkflowEventsQueue” on page 33
- 4 (Optional) “Restore Customizations for Web Authentication” on page 34

Set File Security in UNIX Environments

To increase security in UNIX environments that were created before installing the second maintenance release for SAS 9.2, type the following commands at a UNIX prompt:

```
cd SAS-configuration-directory/Lev1/Web
chmod go= Common/login.config
```

Create WorkflowCommandQueue

If you manually configured your Web application server after your initial installation of SAS, then you must complete the following steps.

To create the WorkflowCommandQueue destination in the Service Integration Bus Queue:

- 1 Select **Service Integration ► Buses ► SAS Messaging Bus**. Click **Destinations**.
- 2 To create the new destination:
 - a Click **New**.
 - b Select the **Queue** option.

c In the **Identifier** field, enter **WorkflowCommandQueue**.

- 3** On the Assign the Queue to a Bus Member page, select **Node=SASmachine-name**
Node:Server=SASServer1 from the **Bus member** drop-down list.

To create the JMS Queue and associate it with the destination:

- 1** In the administrative console for the WebSphere Application Server, select **Resources ► JMS ► Queues**.
- 2** On the Queues page, select **Cell=SASDmgr01Cell** from the drop-down list, and then click **New**.
- 3** Select the **Default messaging provider** option and click **OK**.
- 4** Select **Queues ► Default messaging provider**, and on the New configuration page, enter the following information:
 - ☐ In the **Name** field, enter **WorkflowCommandQueue**.
 - ☐ In the **JNDI Name** field, enter **sas/jms/WorkflowCommandQueue**.
 - ☐ In the **Bus name** drop-down list, select **SAS Messaging Bus**.
 - ☐ In the **Queue name** drop-down list, select **WorkflowCommandQueue**.
 - ☐ If no value is specified in the **Time to live** field, then leave this field blank. If you must specify a time, then enter a value in milliseconds.
 - ☐ If no value is specified in the **Priority** field, then leave this field blank. If you must specify a priority, enter a value between 0–9 (inclusive).

Click **OK**.

- 5** Save your changes.
- 6** Perform a full resynchronization of the dmgr and nodeagent WebSphere servers. This action ensures that the WebSphere Application Server Master Repository and Node Repository are updated and synchronized. Follow these steps:
 - a** In the administrative console for the WebSphere Application Server, select **Administration ► Nodes**.
 - b** Select the check box for the application server node.
 - c** Click **Full Resynchronize**.

Create WorkflowEventsQueue

If you manually configured your Web application server after your initial installation of SAS, then you must complete the following steps.

To create the WorkflowEventsQueue destination in the Service Integration Bus Queue:

- 1** Select **Service Integration ► Buses ► SAS Messaging Bus**. Click **Destinations**.
- 2** To create the new destination:
 - a** Click **New**.
 - b** Select the **Queue** option.
 - c** In the **Identifier** field, enter **WorkflowEventsQueue**.

- 3** On the Assign the Queue to a Bus Member page, select **Node=SASmachine-name**
Node:Server=SASServer1 from the **Bus member** drop-down list.

To create the JMS Queue and associate it with the destination:

- 1** In the administrative console for the WebSphere Application Server, select **Resources ► JMS ► Queues**.

- 2 On the Queues page, select **Node=SASmachine-name Node:Server=SASServer1** from the drop-down list, and then click **New**.
- 3 Select the **Default messaging provider** option and click **OK**.
- 4 Select **Queues ► Default messaging provider**, and on the New configuration page, enter the following information:
 - In the **Name** field, enter **WorkflowEventsQueue**.
 - In the **JNDI Name** field, enter **sas/jms/app/WorkflowEventsQueue**.
 - In the **Bus name** drop-down list, select **SAS Messaging Bus**.
 - In the **Queue name** drop-down list, select **WorkflowEventsQueue**.
 - If no value is specified in the **Time to live** field, then leave this field blank. If you must specify a time, then enter a value in milliseconds.
 - If no value is specified in the **Priority** field, then leave this field blank. If you must specify a priority, enter a value between 0–9 (inclusive).

Click **OK**.
- 5 Perform a full resynchronization of the dmgr and nodeagent WebSphere servers. This action ensures that the WebSphere Application Server Master Repository and Node Repository are updated and synchronized. Follow these steps:
 - a In the administrative console for the WebSphere Application Server, select **Administration ► Nodes**.
 - b Select the check box for the application server node.
 - c Click **Full Resynchronize**.
- 6 Start all Web application servers.

Restore Customizations for Web Authentication

After installing a maintenance release, here are the high-level tasks that you must complete to restore any customizations for Web authentication.

- 1 Modify Logon Manager.
- 2 Reinstall the SAS Web Infrastructure Platform applications EAR file.
- 3 Copy SAS JAR files to the WebSphere installation.
- 4 Restart Remote Services and the WebSphere Application Server.
- 5 Log on to verify the Web authentication configuration.

For more information about each task, see the corresponding topics in *Configuring IBM WebSphere Application Server 6.1 for Web Authentication with SAS 9.2 Web Application*. This document is available from <http://support.sas.com/resources/thirdpartysupport/v92m2/appservers/ConfiguringWASWebAuth.pdf>.

JBoss Application Server

About Configuring Your JBoss Application Server

To configure your JBoss application server, you must complete the following tasks. Depending on how the JBoss application server is set up at your site, some configuration tasks might be completed automatically. For example, you might find that the `WorkflowCommandQueue` and `WorkflowEventsQueue` are created automatically. Therefore, you do not need to manually create these queues.

Note: If you deployed multiple servers or if your middle tier is divided among several servers, you do not need to define these queues for those additional servers. These queues are required only for `SASServer1`. △

In addition, some tasks might be optional. You must determine whether these optional tasks need to be completed at your site.

To ensure that your server is configured correctly, you should review all of the configuration tasks to verify that each task is complete.

- 1 “Set File Security in UNIX Environments” on page 35
- 2 “Create WorkflowCommandQueue” on page 35
- 3 “Create WorkflowEventsQueue” on page 35
- 4 (Optional) “Configure JMS Security” on page 36
- 5 (Optional) “Restore Customizations to Web Authentication” on page 38

Note: Several of these configuration steps require you to add XML code to existing files. When adding XML code, remember the following:

- Enclose text strings in double quotation marks.
- Make sure the format of the XML code is correct. An incorrect space or line break could cause the code to fail. However, line breaks were inserted in the code to present this information in a PDF format. To view the correct formatting of the code, see the HTML version of this document at <http://support.sas.com/documentation/cdl/en/whatsdiff/62567/HTML/default/a003349366.htm>.

△

Set File Security in UNIX Environments

To increase security in UNIX environments that were created before installing the second maintenance release for SAS 9.2, type the following commands at a UNIX prompt:

```
cd SAS-configuration-directory/Lev1/Web
chmod go= Common/login.config
```

Create WorkflowCommandQueue

If you manually configured your Web application server after your initial installation of SAS, then you must configure the WorkflowCommandQueue.

To configure the JMS queue named WorkflowCommandQueue, add the following queue mbean definition before the closing `</server>` tag in the *JBoss-installation-directory/server/SASServer1/conf/jboss-service.xml* file:

```
<mbean code='org.jboss.mq.server.jmx.Queue'
      name='jboss.mq.destination:service=Queue,
      name=WorkflowCommandQueue'>
  <depends optional-attribute-name='DestinationManager'>
    jboss.mq:service=DestinationManager</depends>
  <attribute name='JNDIName'>sas/jms/WorkflowCommandQueue</attribute>
</mbean>
```

Create WorkflowEventsQueue

If you manually configured your Web application server after your initial installation of SAS, then you must configure the WorkflowEventsQueue.

To configure the JMS queue named WorkflowEventsQueue, add the following queue mbean definition before the closing `</server>` tag in the *JBoss-installation-directory/server/SASServer1/conf/jboss-service.xml* file:

```

<mbean code='org.jboss.mq.server.jmx.Queue'
      name='jboss.mq.destination:service=Queue,
      name=WorkflowEventsQueue'>
<depends optional-attribute-name='DestinationManager'>
      jboss.mq:service=DestinationManager</depends>
<attribute name='JNDIName'>sas/jms/app/WorkflowEventsQueue</attribute>
</mbean>

```

Configure JMS Security

If JMS security is enabled, you must complete these additional steps.

Note: In a standard deployment, JMS security is not enabled. △

1 In the

JBoss-installation-directory\server\SASServer1\conf\login-config.xml file:

- a Comment out the default application policy for “jbossmq” and add a new application policy that uses the `UserRolesLoginModule` and the new `users.properties` files and `roles.properties` files. When finished, your code should look similar to the following:

```

<!--
<application-policy name='jbossmq'>
  <authentication>
    <login-module
      code='org.jboss.security.auth.spi.DatabaseServerLoginModule'
      flag='required'>
      <module-option name='dsJndiName'>
        java:/DefaultDS</module-option>
      <module-option name='principalsQuery'>SELECT PASSWD
        FROM JMS_USERS WHERE USERID=?</module-option>
      <module-option name='rolesQuery'>SELECT ROLEID,
        'Roles' FROM JMS_ROLES WHERE USERID=?</module-option>
    </login-module>
  </authentication>
</application-policy>
--->

<application-policy name='jbossmq'>
  <authentication>
    <login-module code='org.jboss.security.auth.spi.UsersRolesLoginModule'
      flag='required'>
      <module-option name='usersProperties'>
        props/sas-jms-users.properties</module-option>
      <module-option name='rolesProperties'>
        props/sas-jms-roles.properties</module-option>
    </login-module>
  </authentication>
</application-policy>

```

- b In the `JmsXARealm` security realm, replace guest references with the `sasjms` user and its credentials. Your code should look similar to the following:

```

<application-policy name='JmsXARealm'>
  <authentication>
    <login-module

```

```

        code='org.jboss.resource.security.ConfiguredIdentifyLoginModule'
        flag='required'
        <module-option name='principal'>sasjms</module-option>
        <module-option name='userName'>sasjms</module-option>
        <module-option name='password'>EaSyPasWd71</module-option>
        <module-option name='managedConnectionFactoryName'>
            jboss.jca:service=TxCM,name=JmsXA</module-option>
    </login-module>
</authentication>
</application-policy>

```

2 In the

JBoss-installation-directory\server\SASServer1\conf\jboss-service.xml file, replace the guest role with the role that was defined in the roles.properties file for ConnectionFactories, AlertQueue, and WorkflowQueue. The following code assumes that the JMSUser role is defined in the sas-jms-roles.properties file.

```

<mbean code='org.jboss.naming.LinkRefPairService'
  name='jboss.jms:alias=SASTopicConnectionFactory'
    <attribute name='JndiName'>sas/jms/TopicConnectionFactory</attribute>
    <attribute name='RemoteJndiName'>ConnectionFactory</attribute>
    <attribute name='LocalJndiName'>java:/JmsXA</attribute>
    <security>
      <role name='JMSUser' read='true' write='true' />
    </security>
    <depends>jboss:service=Naming</depends>
</mbean>

<mbean code='org.jboss.naming.LinkRefPairService'
  name='jboss.jms:alias=SASQueueConnectionFactory'
    <attribute name='JndiName'>sas/jms/QueueConnectionFactory</attribute>
    <attribute name='RemoteJndiName'>ConnectionFactory</attribute>
    <attribute name='LocalJndiName'>java:/JmsXA</attribute>
    <security>
      <role name='JMSUser' read='true' write='true' />
    </security>
    <depends>jboss:service=Naming</depends>
</mbean>

<mbean code='org.jboss.mq.server.jmx.Queue'
  name='jboss.mq.destination:service=Queue,name=AlertQueue'
    <depends optional-attribute-name='DestinationManager'>
      jboss.mq:service=DestinationManager</depends>
    <attribute name='JndiName'>sas/jms/AlertQueue</attribute>
    <security>
      <role name='JMSUser' read='true' write='true' />
    </security>
</mbean>

<mbean code='org.jboss.mq.server.jmx.Queue'
  name='jboss.mq.destination:service=Queue,name=WorkflowQueue'
    <depends optional-attribute-name='DestinationManager'>
      jboss.mq:service=DestinationManager</depends>
    <attribute name='JndiName'>sas/jms/WorkflowQueue</attribute>
    <security>

```

```

        <role name='JMSUser' read='true' write='true' />
    </security>
</mbean>

```

- 3 In the *JBoss-installation-directory\server\SASServer1\deploy\jms\jbossmq-service.xml* file, replace the guest role with the role that was defined in the *roles.properties* file for ConnectionFactories, AlertQueue, and WorkflowQueue. The following code assumes that the JMSUser role is defined in the *sas-jms-roles.properties* file.

```

<mbean code='org.jboss.mq.security.SecurityManager'
  name='jboss.mq:service=SecurityManager'>
  <attribute name='DefaultSecurityConfig'>
    <security>
      <role name='JMSUser' read='true' write='true' create='true' />
    </security>
  </attribute>
  <attribute name='SecurityDomain'>java:/jaas/jbossmq</attribute>
  <depends optional-attribute-name='NextInterceptor'>
    jboss.mq:service=DestinationManager</depends>
</mbean>

```

- 4 Restart your JBoss Application Server.

Restore Customizations to Web Authentication

After installing a maintenance release, here are the high-level tasks that you must complete to restore any customizations for Web authentication.

- 1 Modify Logon Manager.
- 2 Set the CLASSPATH for Remote Services JVM.
- 3 Log on to verify the Web authentication configuration.

For more information about each task, see the corresponding topics in *Configuring JBoss Application Server 4.2.0 for Web Authentication with SAS 9.2 Web Applications*. This document is available from <http://support.sas.com/resources/thirdpartysupport/v92m2/appservers/ConfiguringJBossWebAuth.pdf>.

Redeploying SAS Web Applications

About Redeploying EAR Files

After rebuilding your EAR files and customizing your Web application servers, you must manually redeploy the EAR files for your SAS Web applications to the same location where these files were deployed in SAS 9.2. See your *instructions.html* file for the location of your EAR files. For more information, see “Redeploying the SAS Web Applications” in the *SAS Intelligence Platform: Web Application Administration Guide*.

JBoss

To redeploy a SAS Web application to JBoss:

- 1 Create a directory where you can store unused EAR files. Do not create this directory below the deployment directory or below the *JBoss-installation-directory\server\SASServer1\deploy_sas*. Instead, choose a different location to store these unused EAR files.
- 2 Remove the unused application EAR files from the current deployment directory, and place them in the directory you created for unused EAR files. Typically, the current deployment directory is *JBoss-installation-directory\server\SASServer1\deploy_sas*.
- 3 If applicable, repeat step 2 for each JBoss server.
- 4 Copy all of the new EAR files from the *SAS-configuration-directory\Lev1\Web\Staging* directory to the *JBoss-installation-directory\server\SASServer1\deploy_sas* directory. If restrictive policies were implemented at your site, you must deploy exploded EAR files instead of unexploded EAR archives. The exploded EAR files reside in the exploded location within the *SAS-configuration-directory\Lev1\Web\Staging\exploded* directory. In the second maintenance release for SAS 9.2, the process of rebuilding Web applications in the SAS Deployment Manager automatically results in exploding of the EAR files.
- 5 Repeat step 4 for any additional JBoss application servers (for example, SASServer2) that have SAS applications deployed.
- 6 If necessary, restart JBoss. If the JBoss server has been configured for hot deployment, then you do not need to restart JBoss. Step 1 undeploys the application and step 2 redeploys it. However, if hot deployment is not enabled, then you must restart JBoss.

For complete deployment instructions, see the JBoss documentation at <http://www.jboss.org/docs>.

WebLogic

To redeploy SAS applications to a WebLogic Server by using the WebLogic Administration Console:

- 1 Stop and delete all SAS applications.
- 2 Shut down the SAS managed servers.
- 3 Reinstall the SAS applications.
- 4 Restart the SAS managed servers.
- 5 Start the SAS applications.

For complete deployment instructions, see the WebLogic documentation at <http://www.oracle.com/technology/documentation/index.html>.

Stop and Delete All SAS Applications

To stop and delete all SAS applications:

- 1 Open the WebLogic Administration Console.
- 2 In the **Domain Structure** panel, select **Deployments**.
- 3 In the **Summary of Deployments** panel, select the check boxes of the applications that you want to stop. Then select **Stop ► Force Stop Now**.
- 4 In the **Stop Application Assistant** panel, click **Yes**.
- 5 In the **Summary of Deployments** panel, refresh the view until all selected applications show a Prepared state.

Note: The SAS managed servers should still be running. △

- 6 In the **Change Center** panel, click **Lock and Edit**.
- 7 In the **Summary of Deployments** panel, select the check boxes for all prepared applications, and then click **Delete**.
- 8 In the **Delete Application Assistant** panel, click **Yes**. A message confirms the deletion of the selected deployments.
- 9 In the **Delete Application Assistant** panel, click **Activate Changes**.

Shut Down the SAS Managed Servers

To shut down the SAS managed servers while the WebLogic Admin Server is running:

- 1 Open the WebLogic Administration Console.
- 2 In the **Domain Structure** panel, select **Environment ► Servers**.
- 3 For each SAS server, complete these steps:
 - a In the **Summary of Servers** panel, select the name of the server (for example, SASServer1).
 - b In the **Settings for server-name** panel, click the **Control** tab.
 - c In the Server Status table, select **Shutdown ► Force Shutdown Now**.
 - d Click **Yes** when prompted to confirm a forced shutdown of the servers.
 - e Verify that the server has been shut down.

Reinstall the SAS Applications

With the exception of the **sas.wip.services9.2** EAR file, all EAR files should be deployed from the *SAS-configuration-directory\Lev1\Web\Staging* directory. The **sas.wip.services9.2** EAR file should be deployed from the *SAS-configuration-directory\Lev1\Web\Staging\exploded* directory.

To redeploy EAR files and install SAS applications:

- 1 Locate the **Instructions.html** file in the *SAS-configuration-directory\Lev1\Documents* directory, and record the list of SAS applications and their associated servers. This information is available in the Web Application Server section. You will need this information when you redeploy and install the EAR files.
- 2 Open the WebLogic Administration Console.
- 3 In the **Domain Structure** panel, select **Deployments**.
- 4 In the **Change Center** panel, click **Lock and Edit**.
- 5 In the **Summary of Deployments** panel, click **Install**. The Install Application Assistant opens.
- 6 In the **Locate deployment to install and prepare for deployment** panel, open the *SAS-configuration-directory\Lev1\Web\Staging* directory and select an EAR file. Click **Next**.
- 7 In the **Choose targeting style** panel, select **Install this deployment as an application** (which is the default), and then click **Next**.
- 8 In the **Select deployment targets** panel, select the target server that is associated with the EAR file. (You recorded this information in step 1. Most SAS applications are deployed to SASServer1.) Click **Next**.
- 9 In the **Optional Settings** panel, enter a name for the EAR file or the directory for this deployment.
- 10 If the WebLogic Admin server and the SAS managed server are on the same machine, then for source accessibility, select **I will make the deployment**

accessible from the following location. Click **Next**. Note that this is not a staged mode.

- 11 In the **Review your choices and click Finish** panel, select **No, I will review the configuration later**, and then click **Finish**.
- 12 In the **Change Center** panel, select **Activate Changes**. The application should display in a New state.
- 13 Repeat steps 3–12 to redeploy the other EAR files and install the SAS applications.

Restart the SAS Managed Servers

To restart the SAS managed servers on your WebLogic Server:

- 1 Open the WebLogic Administration Console.
- 2 In the **Domain Structure** panel, select **Environment ► Servers**.
- 3 In the **Change Center** panel, click **Activate Changes**.
- 4 In the **Settings for server-name** panel, click the **Control** tab.
- 5 In the Servers table under **Summary of Servers**, click on the server name (for example, SASServer1).
- 6 In the Server Status table, click **Start**.
- 7 In the **Server Life Cycle Assistant** panel, click **Yes**.
- 8 In the Server Status table, verify that the task has been completed.
- 9 If applicable, repeat steps 2–8 for other SAS managed servers.

Start the SAS Applications

To start the SAS applications on your WebLogic Server:

- 1 Open the WebLogic Administration Console.
- 2 In the **Domain Structure** panel, select **Deployments**. All SAS applications should display in a Prepared state.
- 3 In the **Summary of Deployments** panel, select the check boxes of the applications that you want to start. Then select **Start ► Servicing All Requests**.
- 4 In the **SAS Application Assistant** panel, click **Yes**.

WebSphere

There are two ways to redeploy a SAS Web application to WebSphere. In the first method, you can update an installed application and select **Replace the entire application**. With this method, you can maintain all of the application settings, such as the class loader policy and mode for the EAR and WAR modules. In the second method, you undeploy and redeploy each application individually until all of the rebuilt applications have been redeployed.

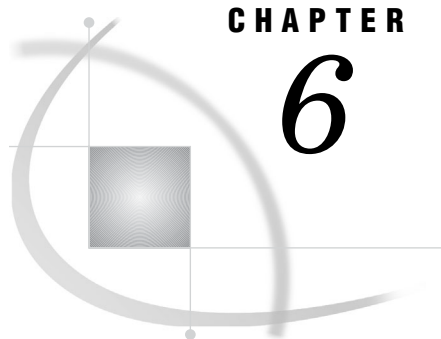
Although you can redeploy the EAR files in any order of your choice, it is highly recommended that you follow the sequence of EAR files specified for WebSphere. For more information, see “Deploying EAR Files in the Correct Order” in the *SAS Intelligence Platform: Web Application Administration Guide*.

To redeploy a SAS Web application to the WebSphere Application Server by undeploying and redeploying each application individually:

- 1 Uninstall and then reinstall the application. For instructions, see the WebSphere documentation.
- 2 In the administrative console for the WebSphere Application Server, select **Applications ► Enterprise Applications**. Then select the SAS Web application that you are redeploying.

- 3 Click **Class loading and update detection**.
- 4 In the **Polling interval for updated files** field, enter 3.
- 5 For the class loader order, select **Classes loaded with application class loader first**.
- 6 Leave the WAR class loader policy set to **Class loader for each WAR file in application**.
- 7 Click **OK**.
- 8 Click **Manage Modules**.
- 9 For each module (WAR file), click the WAR file link. Then select **Classes loaded with application class loader first** from the **Class loader order** box.
- 10 After you have performed step 9 for each WAR file, click **OK**.
- 11 Save your changes.
- 12 Perform a full resynchronization of the dmgr and nodeagent WebSphere servers. This action ensures that the WebSphere Application Server Master Repository and Node Repository are updated and synchronized. Follow these steps:
 - a In the administrative console for the WebSphere Application Server, select **Administration ► Nodes**.
 - b Select the check box for the application server node.
 - c Click **Full Resynchronize**.
- 13 Restart the application.

For complete deployment instructions, see the WebSphere documentation at <http://www.ibm.com/support/documentation/us/en>.



CHAPTER

6

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Overview

The impact of installing a maintenance release depends on the products that you have licensed at your site. Before installing the second maintenance release for SAS 9.2, it is important to review any post-configuration steps or feature changes that could affect your site. Reviewing this information before installation can help you plan appropriately.

This chapter focuses on the post-configuration steps that are required for products that are being updated in the second maintenance release for SAS 9.2. This chapter also documents any impact that installing the second maintenance release for SAS 9.2 might have on SAS products that shipped for SAS 9.2 Phase 2 and before or at the same time as the second maintenance release for SAS 9.2.

To identify all of the changes in a maintenance release, see the documents and SAS Web sites listed in “Additional Resources” on page 4.

SAS AppDev Studio

The second maintenance release for SAS 9.2 adds the ability for SAS AppDev Studio to create or upgrade SAS projects to that maintenance level. To work correctly, a SAS AppDev Studio project must match the maintenance level of the SAS 9.2 installation on which it will be run. You need to apply maintenance to SAS AppDev Studio only if you will be developing SAS projects for SAS 9.2 installations which have also had maintenance applied.

SAS Data Integration Studio

New Product Release Number

The second maintenance release for SAS 9.2 delivers SAS Data Integration Studio 4.21 to customers who did not previously upgrade from version 4.2.

Hotfixes A09001 and A16001 have been rolled into this release. Most of these fixes are related to migration and promotion issues for SQL join.

New Functionality: Resource Templates for Neoview and Netezza Libraries

In the maintenance release, resource templates have been added for Neoview and Netezza libraries. If you install SAS for the first time using this release, the resource templates are loaded automatically. However, if you install the maintenance release onto an existing SAS 9.2 installation, the resource templates are not added automatically. In that case, if you want to access resource templates for Neoview and

Netezza in SAS Data Integration Studio, and you did not manually add these templates, for a previous release, then you must manually add them now. Follow the steps that are described in “SAS Management Console” on page 51.

Post-Configuration Steps: Import Updated Generated Transformations

Due to the changes delivered in the second maintenance release for SAS 9.2, you must delete the generated transformations in SAS Data Integration Studio and use the Import SAS Package wizard to import a package of updated generated transformations.

The following steps summarize how to use the Import SAS Package wizard. For more information about this wizard, see the Help for the wizard. See also “Using the Export SAS Package and Import SAS Package Wizards: Example Usage Scenario” in the *SAS Intelligence Platform: System Administration Guide*.

Perform the following steps once per metadata server. Repeat for all metadata servers that SAS Data Integration Studio users access.

Note: In order to find the SAS package file, you must run SAS Management Console on the computer where the SAS Metadata Server is running, or you must otherwise have access to the path specified in Step 5. △

- 1 Open SAS Management Console as an administrator.
- 2 On the **Folders** tab, expand the following folders: **System ► Applications ► SAS Data Integration Studio ► Common ► Generated Transformations**.
- 3 Select all generated transformations in the table on the right pane. Right-click the list of generated transformations and select **Delete**. Delete all generated transformations.
- 4 On the **Folders** tab, right-click the **Generated Transformations** subfolder, and select **Import SAS Package**. The Welcome page of the Import SAS Package wizard is displayed. Under **Select objects to import**, leave the default option selected (**All Objects**).
- 5 To find the folder that contains the package of generated transformations, click **Browse**. Navigate to the *SAS-installation-directory\databuildata\config\Deployment\Packages* folder on the computer where the metadata server has been installed. For example, the default paths in Windows and UNIX operating environments are as follows:
 - Windows:
SAS-installation-directory\SASFoundation\9.2\core\sasmisc\sasconf\databuildata\config\Deployment\Packages
 - UNIX: *SAS-installation-directory/SASFoundation/9.2/misc/base/sasconf/databuildata/config/Deployment/Packages*
- 6 Select the **PackageTransforms.spk** file and click **Next**.
- 7 The next set of pages enable you to specify paths, and so on, for the target location that correspond to paths, and so on, from the source location. For more information, see the Help for each page. Click **Next** as appropriate until the Summary page is displayed.
- 8 Review the information in the Summary page. When you are ready to import, click **Next**.
- 9 The generated transformations are added to the repository. Click **Finish**. The generated transformations are installed in the **Generated Transformations** subfolder in SAS Management Console.

SAS Drivers for ODBC

New Product Release Number

After applying the second maintenance release for SAS 9.2, the product release number for the SAS Drivers for ODBC is 9.22. (For more information, see “Understanding Product Release Numbers” on page 7.)

Before You Upgrade: Record Your Data Source Names

Before you upgrade to the SAS 9.2 Drivers for ODBC, record the information for each of your Data Source Names (DSN) that use the existing SAS driver. The following instructions describe how to record this information. After you record this information, uninstall the older version of the SAS driver and then upgrade to the new release.

Follow these steps:

- 1 Access the Windows Control Panel by selecting **Start ► Settings ► Control Panel**.
Find the ODBC Data Sources or the ODBC Administrator icon. This icon might be located in the Control Panel group, an ODBC group, or in the Administrative Tools group. If you have installed a package of other ODBC drivers, this icon might be in a group that is associated with that package.
- 2 Double-click the icon to open the ODBC Data Source Administrator dialog box.
- 3 For each of the DSNs that use the SAS driver, follow these steps:
 - a Select the DSN and click **Configure**.
 - b Select each of the tabs and record the information so that you can use it to configure the DSNs with the new driver.
- 4 Close the SAS ODBC Configuration dialog box and the ODBC Data Source Administrator dialog box.
- 5 Use the Windows Add or Remove Programs utility to remove the old SAS ODBC driver.
- 6 If you have other SAS software products installed on the machine, then run the SAS Deployment Wizard to apply maintenance.
- 7 Install the SAS 9.2 Drivers for ODBC. The drivers are available in the following methods:
 - As a download from <http://www.sas.com/apps/demosdownloads/setupcat.jsp?cat=ODBC+Drivers>.
 - By running the SAS Deployment Wizard from a depot that includes the SAS Drivers for ODBC. You can run the wizard and choose the **Install Additional Software** option, or you can choose the **Install SAS Foundation and Related Software** option. This second option enables you to choose Clients only on the Select Products to Install page. For customers that are familiar with previous releases of SAS software, this is similar to the Clients CD Volume 1.
- 8 Use the ODBC Data Source Administrator and the recorded information to recreate the DSNs. For more information about creating DSNs, refer to the *SAS Drivers for ODBC: User's Guide*.

SAS Enterprise Miner

New Functionality: Updates to Base SAS and SAS/STAT Software

SAS Enterprise Miner 6.1 was updated in May 2009, so the second maintenance release for SAS 9.2 contains no updates or fixes to this product. However, updates to required products such as Base SAS and the SAS/STAT software will benefit data mining users.

Post-Configuration Steps: Restart SAS Analytics Platform

Note: If you are installing the product-specific maintenance release for SAS Enterprise Miner 6.1, then skip this post-configuration step and see Chapter 11, “SAS Enterprise Miner,” on page 75 for instructions on how to install the product-specific maintenance release. △

After installing the second maintenance release for SAS 9.2, you must stop and restart the SAS Analytics Platform server. For more information, see “Restarting the SAS Analytics Platform Server” on page 25.

SAS Fair Banking

Before You Upgrade: Create Backup Files

You should back up metadata, SAS data sets, and stored processes before you install the second maintenance release for SAS 9.2 and SAS Fair Banking 4.1.

Post-Configuration Steps: Administrative Updates to OLAP Cubes

Because of enhancements to OLAP security, you need to perform administrative updates of the cubes in your SAS Fair Banking solution, and you need to update an associated library that is defined and registered by the solution. Without these updates, your cubes will be locked, and you will be unable to refresh their contents. After the administrative updates, your SAS log will contain a message that the cubes were updated.

To perform these updates, follow these steps:

- 1 Log on to SAS Management Console using the SAS Fair Banking administrator account.
- 2 Select the **Folders** tab.
- 3 Navigate to folder **SAS Fair Banking/Data Source** and then to the folder that contains the registered library L_RPTS. For example, if library L_RPTS is located in the folder **Reporting**, navigate to the folder **SAS Fair Banking/Data Source/Reporting**. Delete L_RPTS.
- 4 Log on to the SAS server using the SAS Fair Banking administrator account.
- 5 Restart all SAS services.

- 6 Run the following code in the SAS Fair Banking SAS environment. (See “Configuring the SAS Environment to Run SAS Fair Banking Programs” in *SAS Fair Banking 4.1: Administrator’s Guide* for information about the SAS Fair Banking SAS environment.)

```
%sfb_reporting_job_driver;
```

SAS Forecast Server

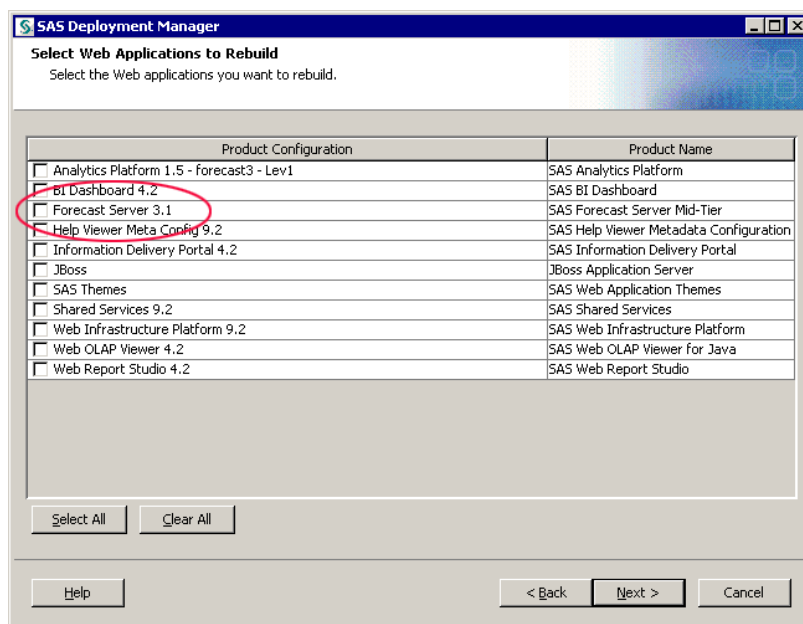
In the second maintenance release for SAS 9.2, additional steps are required to use the Java Web Start application with SAS Forecast Server 3.1. These steps are not required if you are installing SAS Forecast Server 3.1 for the first time.

To use the Java Web Start installation with SAS Forecast Server 3.1, you must complete the following steps after installing the second maintenance release for SAS 9.2:

- 1 Copy the **jws_exclude** file from *SAS-installation-directory\SASForecastServerMidTier\3.1\Config\apps\Forecasting* to the *SAS-configuration-directory\Lev1\AnalyticsPlatform\apps\Forecasting* directory.
- 2 If you selected SAS Forecast Server 3.1 in the **Select Web Applications to Rebuild** panel in the SAS Deployment Manager, then you must copy the rebuilt Web application files to the correct deployment location for SAS Forecast Server.

Note: If you did not select SAS Forecast Server 3.1 in this panel, then you do not need to complete this step. Rebuilding the Web application for SAS Forecast Server is not a required step in the second maintenance release for SAS 9.2. △

The following display shows the SAS Forecast Server 3.1 option in the **Select Web Applications to Rebuild** panel.



To copy the rebuilt Web application files to the correct location for SAS Forecast Server 3.1:

- a Copy the **sas.forecasting.war** file from *SAS-configuration-directory\Lev1\AnalyticsPlatform\apps\Forecasting\Temp*

- directory to
`SAS-configuration-directory\Lev1\AnalyticsPlatform\apps\Forecasting\Lib`.
 You should overwrite the existing file in the **Lib** directory.
 - b** Delete the
`SAS-configuration-directory\Lev1\AnalyticsPlatform\apps\Forecasting\Temp`
 directory.
- 3** Stop and restart the Analytics Platform server. For more information, see
 “Restarting the SAS Analytics Platform Server” on page 25.

SAS Grid Manager

New Functionality: SAS Grid Manager Client Utility

The SAS Grid Manager Client Utility has been added to the second maintenance release for SAS 9.2 and provides these functions:

- ☐ enables users to submit SAS programs to a grid for processing without having other SAS software installed on the machine that is performing the submission (if the grid uses Platform Suite for SAS, Platform LSF must be installed on the machine)
- ☐ enables users to submit SAS programs to the grid and then turn off or reboot the machine from which the program was submitted, while the submitted programs continue to run
- ☐ provides checkpoint and restart functions to automatically restart a program if a machine fails while the program is running on the grid

If you install SAS Grid Manager for the first time using the second maintenance release for SAS 9.2, and the SAS Grid Manager Client Utility is in the plan file, then the SAS Grid Manager Client Utility is automatically installed and configured using the SAS Deployment Wizard.

The configuration for the SAS Grid Manager Client Utility assumes that all of the following actions have been performed:

- ☐ The grid control server has already been installed. The configuration must retrieve the logical grid server definition from metadata.
- ☐ The user name under which jobs are submitted is defined in metadata. If not, jobs that are submitted to the grid will fail. The user must also have read access to the grid server definition.
- ☐ A shared directory or shared file system is available to the client machine and the grid machines.
- ☐ You have created the Grid work directory on the shared directory or the shared file system and verified that it is available to the grid machines as well as to the machine on which the SAS Grid Manager Client Utility is installed. The Grid work directory is specified in the SAS Deployment Wizard (the field name is **Grid work path**), and is the directory on the shared file system that is used to store program, output, and job information.
- ☐ You have copied the SAS installation data (SID) file used to install the grid control server to the Grid work directory and you have renamed the file to `license.sasgsub`. The SID file must have the Grid Manager product licensed, which means that the Grid Manager must be part of the PROC SETINIT stream and listed in the SID file.

Post-Configuration Steps: Install the SAS Grid Manager Client Utility

If you installed your grid using SAS 9.2 before the second maintenance release and want to install the SAS Grid Manager Client Utility, you must also change the sasgrid script file. Follow these steps.

- 1 Install the SAS Grid Manager Client Utility. Follow the instructions in Configuring or Deploying New SAS Products in *SAS Intelligence Platform: Installation and Configuration Guide*. You must obtain a new plan file and include SAS Grid Manager Client Utility 9.2 in the file. Foundation SAS or any other SAS software is not required to be included in this plan file. The machine on which you are installing the utility must have Platform LSF installed on it.
- 2 Edit the sasgrid.cmd file (Windows) or the sasgrid file (UNIX). The file is located in the GridServer directory under the configuration directory (for example, **C:\SASConfig\Grid\Lev1\SASApp\GridServer**).

Note: If you are using Windows, the editor that you use must save the file using carriage return/line feed as the line termination characters. △

- 3 Locate the SASEXEFILE environment variable and change the @sas.exec.file@ value to the path for the SAS executable file on all of the grid machines. For example, you might change the Windows sasgrid.cmd file from **SASEXEFILE="@sas.exec.file@"** to **SASEXEFILE="C:\Program Files\SAS\SASFoundation\9.2\sas.exe"**.
- 4 Save the file.
- 5 Copy the script file to each machine in the grid. The file should be located in the GridServer directory under the SAS configuration directory associated with the SAS Application Server used by the SAS Grid Manager Client Utility. For example, under Windows, you should copy the sasgrid.cmd file to **C:\SASConfig\Grid\Lev1\SASApp\GridServer** if the SAS configuration directory is **C:\SASConfig\Grid\Lev1** and the application server is **SASApp**.

Note: If you do not update the script file on all machines in the grid, the SASGSUB -GRIDGETSTATUS command does not report the correct status for a job submitted to the grid. The job always appears to be in a “Submitted” state. △

- 6 If the machine on which you installed the SAS Grid Manager Client Utility uses a different platform from the machines on the grid, you must modify the server definition for the Logical Grid Server.

Use the Server Manager in SAS Management Console to open the server definition for the Logical Grid Server under the SAS Application Server. Using the context menu, open the Properties window for the server definition that is under the Logical Grid Server definition.

In the Properties dialog box, click the **Options** tab.

In the **Additional Options** field, type **regres="type==any"**.

Close the Properties window.

For more information about the SAS Grid Manager Client Utility, see *Grid Computing in SAS*.

SAS Management Console

New Product Release Number

After applying the second maintenance release for SAS 9.2, the product release number for SAS Management Console is 9.2_M1. To determine the release that you are running at your site, see the About box in SAS Management Console. For more information, see “Understanding Product Release Numbers” on page 7.

Scheduling Reports

After you have installed the second maintenance release for SAS 9.2, you cannot use SAS Management Console to deploy reports as jobs for scheduling. Schedules for reports must be created within SAS Web Report Studio. After a report has been deployed and scheduled using SAS Web Report Studio, you can use the Schedule Manager plug-in for SAS Management Console to reschedule the report.

New Functionality: Resource Templates for Neoview and Netezza Libraries

In the second maintenance release for SAS 9.2, resource templates have been added for Neoview and Netezza libraries.

If you install SAS for the first time using this release, the resource templates are loaded automatically. If you install the maintenance release onto an existing SAS 9.2 installation, the resource templates are not added automatically; the templates must be added manually.

Post-Configuration Steps: Load the Resource Templates

To load the resource templates, follow these steps:

- 1 In SAS Management Console, select the Resource Templates folder. This folder is located under the Metadata Manager on the Plug-ins tab.
- 2 Select **Add Resource Template** from the pop-up menu, the Actions menu, or the toolbar.
- 3 Use the Add Resource Template wizard to select and load the Neoview and Netezza templates. The templates are located in the path **Resource Templates ► Libraries ► Database Data ► NeoView Library and Netezza Library** (the templates are listed separately.) Click Help from any window in the Add Resource Template wizard for detailed information.

If you installed these resource templates as part of the process of installing SAS Data Integration Studio 4.21, you do not need to install the resource templates again.

SAS Model Manager

New Functionality

The second maintenance release for SAS 9.2 fixes the following problems that previously affected SAS Model Manager 2.2:

- Spaces in the Windows CLASSPATH environment variable no longer cause connection errors when you run SAS Model Manager macros.
- An insufficient authorization error for the *SAS-configuration-directory/Lev1/SASApp/btegaltr.dat* file no longer occurs when you publish a Teradata scoring function that is in unprotected mode.
- Model Manager now honors publishing the Teradata scoring function in unprotected mode.

Post-Configuration Steps: How to Use the Java Web Start Application

In the second maintenance release for SAS 9.2, additional steps are required to use the Java Web Start application with SAS Model Manager 2.2. These steps are not required if you are running an earlier version of SAS Model Manager or if you are installing SAS Model Manager 2.2 for the first time.

To use the Java Web Start installation with SAS Model Manager, follow these steps:

- 1 On the middle tier server where the SAS Analytics Platform server is installed, access the *SAS-configuration-directory/Lev1/AnalyticsPlatform/apps/ModelManager/* directory.
- 2 Rename the file *picklist.mds* to *picklist.mds.bak*.
- 3 Copy the file *picklist* from the *SAS-installation-directory/SASModelManagerApplicationProgrammingInterface/2.2/Picklists/wars/sas.analytics.mm* directory to the *ModelManager* directory that is specified in Step 1.
- 4 In the *ModelManager* directory, rename the file *picklist* to *picklist.mds*.
- 5 Stop and restart the SAS Analytics Platform server. For more information, see “Restarting the SAS Analytics Platform Server” on page 25

SAS OLAP Server

New Product Release Number

After applying the second maintenance release for SAS 9.2, the product release number for SAS OLAP Server is 9.21_M1. To determine the release that you are running at your site, see the SAS log for SAS OLAP Server or the About box in SAS OLAP Studio. For more information, see “Understanding Product Release Numbers” on page 7.

ExportCubes and ImportCubes Batch Tools

The ExportCubes and ImportCubes command-line batch tools enable you to move your SAS 9.1.3 SP4 cubes to the second maintenance release for SAS 9.2. These batch tools are available for use on Windows and are executed from a DOS command line. To use the batch tools, you must go to the DOS command line on your operating system. The batch tool can be found in the following directory path:

SAS-Installation-directory\sasmanagementconsole\9.1\commands

The ExportCubes batch tool exports the metadata for your cubes into individual XML files that are stored in a designated directory. The ExportCubes batch tool exports all cubes on the metadata server. The ImportCubes batch tool enables you to import SAS 9.1.3 OLAP cube metadata files that have been exported using the ExportCubes batch tool on your SAS 9.1.3 SP4 environment.

With the ImportCubes batch tool you can specify the location of multiple exported SAS 9.1.3 XML files and import them to your SAS 9.2 OLAP environment. The SAS 9.1.3 SP4 cube metadata is imported and added to the SAS 9.2 Metadata Server. After the metadata files are imported, you can then rebuild your SAS 9.1.3 SP4 cubes on your SAS 9.2 system. You can use SAS OLAP Cube Studio to build the physical data for the cubes.

Note: For further information, see “ExportCubes and ImportCubes Batch Tools” in the *SAS OLAP Server: User’s Guide*. △

Drill-through to Metadata Security

When selecting a data table for drill-through, you might need to define user restrictions for certain data in the drill-through table. In the second maintenance release for SAS 9.2, the drill-through to detail functionality enforces metadata security. The SAS Metadata LIBNAME engine is now used to assign the drill-through table library on a per-session basis. This allows client credentials to be used when determining which columns the user can see. Columns that have ReadMetadata permissions denied on the drill-through table will not be visible to the user. If access is denied for a column on the drill-through table, that level must also be denied Read access in the cube. Conversely, if a level is denied Read access in the cube, that column in the drill-through table must have ReadMetadata access denied.

Note: For more information, see “Security for Drill-through Tables” in the *SAS OLAP Server: User’s Guide*. △

SAS OnlineDoc for the Web

New Product Release Number

After applying the second maintenance release for SAS 9.2, the product release number for SAS OnlineDoc for the Web is 9.21_M1. For more information, see “Understanding Product Release Numbers” on page 7.

Post-Configuration Steps: Manual Deployment of SAS OnlineDoc for the Web

The EAR file for the SAS OnlineDoc for the Web contains several updates in the second maintenance release for SAS 9.2. If you deployed the SAS OnlineDoc for the Web when you initially installed SAS 9.2, then you must manually redeploy this EAR file after installing the maintenance release. The EAR file for the SAS OnlineDoc for the Web is available from *SAS-installation-directory\Documentation\9.2\onlinedocweb\sas.onlinedocweb9.2.ear*. For more information, see “Manual Deployment of SAS OnlineDoc for the Web” in the *SAS Intelligence Platform: Web Application Administration Guide*.

SAS OpRisk Monitor

The second maintenance release for SAS 9.2 has no impact on SAS OpRisk Monitor 4.1. However, it is recommended that metadata, SAS data sets, and stored processes are backed up before installing the maintenance release.

After applying the second maintenance release for SAS 9.2, no additional steps are required to configure SAS OpRisk Monitor 4.1.

SAS OpRisk VaR

The second maintenance release for SAS 9.2 has no impact on SAS OpRisk VaR 4.1. However, it is recommended that metadata, SAS data sets, and stored processes are backed up before installing the maintenance release.

After applying the second maintenance release for SAS 9.2, no additional steps are required to configure SAS OpRisk VaR 4.1.

Note: In February 2010, the second maintenance release for SAS OpRisk VaR was released. For more information, see Chapter 14, “SAS OpRisk VaR,” on page 89. △

SAS Profitability Management

The second maintenance release for SAS 9.2 includes the following updates for SAS Profitability Management:

- Allows users to save model descriptions and report hierarchy descriptions that contain more than 127 DBCS characters.
- For customers using the localized Spanish version of SAS Profitability Management, corrects a problem that generated scripting errors when a new model was created.

After applying the second maintenance release for SAS 9.2, no additional steps are required to configure SAS Profitability Management.

SAS Risk Dimensions

The second maintenance release for SAS 9.2 has no impact on SAS Risk Dimensions 5.2. However, it is recommended that metadata, SAS data sets, and stored processes are backed up before installing the maintenance release.

After applying the second maintenance release for SAS 9.2, no additional steps are required to configure SAS Risk Dimensions.

SAS Text Miner

Note: In December 2009, SAS Text Miner 4.2 was released. If you are installing or adding this version of SAS Text Miner, see the *Installation and Upgrade Instructions for SAS Text Miner 4.2* at <http://support.sas.com/documentation/onlinedoc/txtminer/index.html>. △

SAS Enterprise Miner 6.1 and SAS Text Miner 4.1 were updated in May 2009, so the second maintenance release for SAS 9.2 contains no updates or fixes to those products. However, updates to required products such as Base SAS and the SAS/STAT software will benefit data mining and text mining users.

SAS Enterprise Miner is required to run SAS Text Miner, so no additional post-configuration steps are needed to configure SAS Text Miner. To review the post-configuration steps for SAS Enterprise Miner, see “SAS Enterprise Miner” on page 47.

SAS Web Analytics

SAS Web Analytics 5.3 is not supported with the second maintenance release for SAS 9.2. To use SAS Web Analytics with the second maintenance release for SAS 9.2, you need to order SAS Web Analytics 5.3.1.

SAS Web Report Studio

New Product Release Numbers

After applying the second maintenance release for SAS 9.2, the product release number for SAS Web Report Studio is 4.2_M1, and the product release number for SAS Web Report Studio Help and Documentation is 4.2_M2. To determine the release of SAS Web Report Studio that you are running at your site, see the About box in SAS Web Report Studio. For more information about release numbers, see “Understanding Product Release Numbers” on page 7.

New Functionality: LSF Services Group

In the second maintenance release for SAS 9.2, the LSF Services user group has been added. This group enables SAS Web Report Studio to schedule jobs using Platform Suite for SAS. The group uses the login and password of the user ID that schedules reports in

SAS Web Report Studio (typically, lsfuser). The SAS Deployment Wizard for the second maintenance release for SAS 9.2 automatically creates this group for new installations of SAS Web Report Studio that use scheduling with Platform Suite for SAS. The password for the user ID lsfuser is managed by the SAS Deployment Manager.

Post-Configuration Steps: Create the LSF Services Group

The LSF Services group is automatically created under these conditions:

- You are using the SAS Deployment Wizard for the second maintenance release for SAS 9.2 to install and configure a new installation of SAS Web Report Studio.
- You have enabled scheduling that uses Platform Suite for SAS in the SAS Web Report Studio configuration.
- Platform Suite for SAS is included in the plan file for the second maintenance release for SAS 9.2.

If you installed and configured SAS Web Report Studio by using the SAS Deployment Wizard for any release prior to the second maintenance release for SAS 9.2, then you must manually create the LSF Services group. Follow these steps to create the group:

- 1 Use the User Manager plug-in in SAS Management Console to create a new authentication domain. Select **Actions ► Authentication Domains**. The domain must be named LSFServicesAuthWRS.
- 2 Use the User Manager plug-in in SAS Management Console to create a new group. The group must be named LSFServices.
- 3 In the Properties dialog box for the LSFServices group, select the **Accounts** tab and add the user ID that schedules reports in SAS Web Report Studio (typically lsfuser).

In Windows systems, you must preface the user ID with a domain (*hostname\lsfuser*).

Select the LSFServicesAuthWRS authorization domain for the user.

Provide the password for the user ID.

- 4 On the **Members** tab, add the user ID for the trusted user (SAS Trusted User) to the LSFServices group.

Changing the Location of the Temporary Workspace

In SAS Web Report Studio 4.2, the `wrs.io.tmpdir` property has been added. This property ensures that you can change the location of the temporary workspace for SAS Web Report Studio and SAS Web Report Viewer.

For a JBoss Web server, the default location is

C:\jboss-4.2.0.GA\server\SASServer1\work\jboss.web\localhost\SASWebReportStudio\sas.wrs.tmpfiles.

To change the location of the temporary workspace, you can either modify the `LocalProperties.xml` file or change the properties by using the Configuration Manager plug-in in SAS Management Console.

To change the location of the temporary workspace by using the Configuration Manager:

- 1 In SAS Management Console, expand the **Plug-ins ► Application Management ► Configuration Manager** folder. Right-click the **Web Report Studio 4.2** folder and select **Properties**. The Web Report Studio 4.2 Properties window opens.
- 2 Click the **Advanced** tab.
- 3 Enter the `sas.webreportstudio.cleanup.temp.directory` property.

- 4 Change the value of the property to the value of the location that you want to use for the temporary workspace (for example, **C:\Temp\WRSTEMP**).
- 5 Enter the **wrs.io.tmpdir** property.
- 6 Change the value of the property to the value of the location that you want to use for the temporary workspace (for example, **C:\Temp\WRSTEMP**).
- 7 Click **OK** to exit the Web Report Studio 4.2 Properties window.

To change the location by modifying the LocalProperties.xml file:

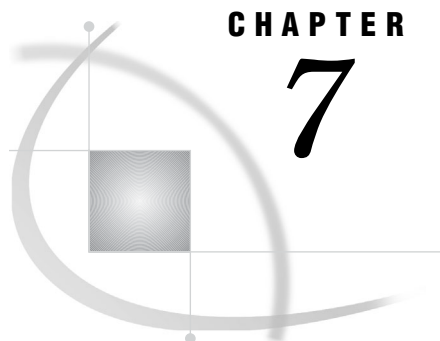
- 1 Locate the LocalProperties.xml file for SAS Web Report Studio. The file is located in **SAS-configuration-directory\Lev1\Web\Applications\SASWebReportStudio4.2\customer**. If the file does not exist, copy and rename the LocalProperties.xml.sample file to LocalProperties.xml.
- 2 Add the following lines to the LocalProperties.xml file for SAS Web Report Studio. This example uses a new location of **C:\Temp\WRSTEMP**.

```
<sas.webreportstudio.file.cleanup.temp.directory>
    C:\Temp\WRSTEMP\sas.wrs.tmpfiles
</sas.webreportstudio.file.cleanup.temp.directory>
<wrs.io.tmpdir>
    C:\Temp\WRSTEMP\sas.wrs.tmpfile
</wrs.io.tmpdir>
```

- 3 Locate the LocalProperties.xml file for SAS Web Report Viewer. The file is located in **SAS-configuration-directory\Lev1\Web\Applications\SASWebReportViewer4.2\customer**. If the file does not exist, copy and rename the LocalProperties.xml.sample file to LocalProperties.xml.
- 4 Add the following lines to the LocalProperties.xml file for SAS Web Report Viewer. This example uses a new location of **C:\Temp\WRSTEMP**.

```
<sas.webreportstudio.file.cleanup.temp.directory>
    C:\Temp\WRSTEMP\sas.wrs.tmpfiles
</sas.webreportstudio.file.cleanup.temp.directory>
<wrs.io.tmpdir>
    C:\Temp\WRSTEMP\sas.wrs.tmpfile
</wrs.io.tmpdir>
```

For information about the LocalProperties.xml file, see “Configuring SAS Web Report Studio” in the *SAS Intelligence Platform: Web Application Administration Guide*.



CHAPTER

7

Frequently Asked Questions

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How Much Time Should I Allow for Applying a Maintenance Release?

The outage time that is required for applying a maintenance release varies from site to site. Installing product updates is only a small part of applying a maintenance release. When estimating the outage time for your site, you must also include time for configuring your Web application servers, restoring customizations, and completing any post-configuration steps for products at your site. To estimate how long it will take to apply a maintenance release, identify the steps in the Chapter 5, “Maintenance Configuration for the Second Maintenance Release for SAS 9.2,” on page 23 and Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43 chapters that must be completed at your site.

How Can I Optimize the Download of a Maintenance Release?

If you created a SAS Software Depot for SAS 9.2, it is recommended that you download the maintenance release for SAS 9.2 to this depot. When you download a maintenance release for SAS 9.2 to an existing SAS 9.2 Software Depot, then only the files that were updated in the maintenance release will be downloaded. If you download the maintenance release to a new SAS Software Depot, then all files in the SAS 9.2 release must be downloaded.

Does the Date-and-Time Stamp of My Files Affect the Installation of the Maintenance Release?

The installation process for a maintenance release uses the date-and-time stamps for some non-versioned files to determine whether a file needs to be updated. The

date-and-time stamp for an installation of SAS 9.2 Phase 2 is February 20, 2009. If you copied installations or modified these date-and-time stamps in any way, then the maintenance release might not install properly. To modify the date-and-time stamps in UNIX operating environments, see “Installing a Maintenance Release in a UNIX Environment” on page 15.

Can I Add New Products While Applying a Maintenance Release?

Updates that are installed in a maintenance release apply only to software that is already installed at your site. No new software is installed during a maintenance installation. If your software order includes new software, then you need to restart the SAS Deployment Wizard after applying the maintenance release to install the new products.

How Do I Confirm a Successful Installation?

To confirm that the maintenance release installed successfully, review the Installation section in the Deployment Summary, which automatically opens after the installation process completes. For more information, see “About the Deployment Summary” on page 19.

To troubleshoot a product that failed to install, use the product’s audit files. The audit files list each file that was added, deleted, or replaced for that product. For more information, see “About the Audit Files for a Maintenance Release” on page 21.

What Can I Do If a Product Update Fails?

If the update of a product failed during the installation process, you might need to force a reinstallation of the maintenance release. For example, your installation failed while installing the English update of Base SAS. However, the Deployment Summary shows that the update for Base SAS was applied, and you cannot reinstall Base SAS from the SAS Deployment Wizard.

To force the SAS Deployment Wizard into update mode, specify the **-forcemaint** option when you specify the start-up command for your operating environment. (For a list of the start-up commands, see *Install and Configure SAS Interactively in the SAS Intelligence Platform: Installation and Configuration Guide*.) When forced into update mode, SAS examines each file and determines whether any updates need to be applied.

How Do I Validate a Deployment?

SAS provides several tools that you can use to validate your deployment. For more information about these tools and the validation process, see SAS Note 35787 at <http://support.sas.com/kb/35/787.html>.

How Can I Determine Whether a Maintenance Release Has Already Been Applied?

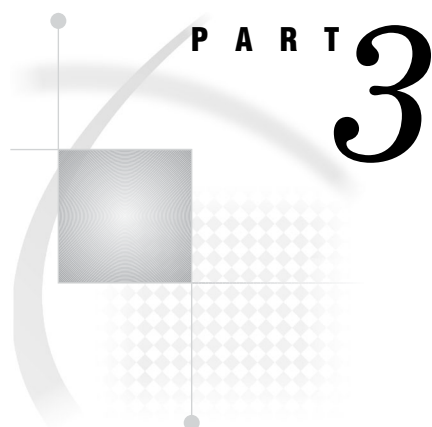
To determine whether your site is running the latest version of your SAS products, run the SAS Deployment Wizard. If a machine does not require any product updates, then the SAS Deployment Wizard will not go into update mode, and the installation on that machine is complete.

Can I Uninstall a Maintenance Release?

When applying a maintenance release, SAS automatically backs up any files that are modified in the SAS installation directory. However, it does not back up any changes that you made to the SAS configuration directory.

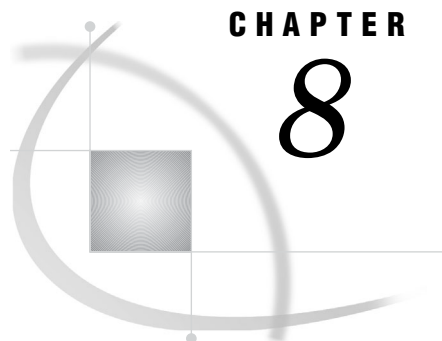
Therefore, before installing a maintenance release, it is recommended that you back up all of the files in your SAS deployment. If you need to restore a previous deployment of SAS, it is recommended that you use these backup copies.

For more information, see “Creating and Removing Backup Files” on page 12.



Product-Specific Maintenance Releases

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CHAPTER

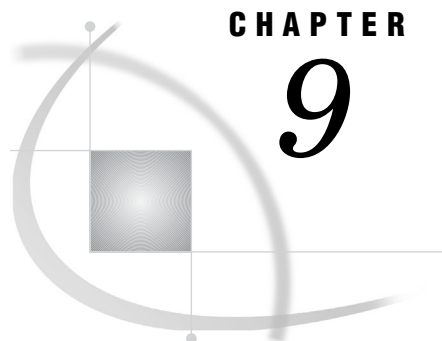
8

SAS Analytics Platform

About the Maintenance Release 65

About the Maintenance Release

The maintenance release for SAS Analytics Platform 1.5 (available in December 2009) includes localized Help. After installing the maintenance release, the product number for SAS Analytics Platform is 1.5_M2.

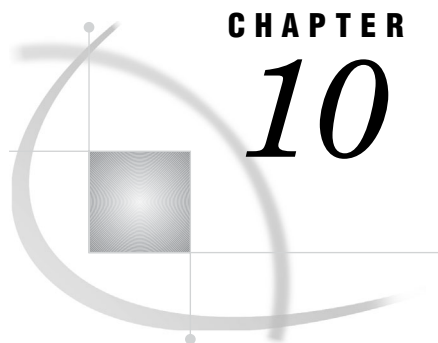


SAS Customer Intelligence

About the Maintenance Release 67

About the Maintenance Release

The maintenance release for SAS Customer Intelligence 5.3 (available in February 2010) includes localized Help. After installing the maintenance release, the product number for SAS Customer Intelligence is 5.3_M1.



CHAPTER

10

SAS Data Surveyor for Clickstream Data

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New Product Release Number

In November 2009, SAS Data Surveyor for Clickstream Data 2.1 shipped a maintenance release. After installing the maintenance release, the product number for SAS Data Surveyor for Clickstream Data is 2.1_M1.

Preparing for a Maintenance Release

After applying the maintenance release, you must configure the middle tier and plug-ins for SAS Data Surveyor for Clickstream Data. Review the requirements for each configuration before applying the maintenance release.

- When configuring the middle tier, you copy any existing files to a backup directory and a maintenance directory. Before applying the maintenance release, consider how much disk space you need for these additional directories.
- Configuring the SAS Data Surveyor for Clickstream Data plug-in results in the contents of the **/Product/SAS Data Surveyor for Clickstream Data** folder being removed from the metadata data and replaced with new versions of the templates. As a result, any customizations that you made to objects are lost.

If you changed any object in the **/Product/SAS Data Surveyor for Clickstream Data** folder in a previous release, copy those objects to a backup location before applying the maintenance release.

Configuring the Middle Tier of SAS Data Surveyor for Clickstream Data

Overview of the Configuration Process

After installing the maintenance release, you must manually configure your existing clickstream collection servers in order to apply the maintenance updates.

To manually configure your servers:

- 1 Back up and copy your existing files.
- 2 Copy updates.
- 3 Edit the robots.txt file.
- 4 Edit the SASSiteConfig.js files.
- 5 Apply the update.
- 6 Verify that the server is working.

Note: You should complete these steps in compliance with your organization's standards. In a production environment, it is recommended that you first apply these changes to a test environment. After you have validated the updates in the test environment, copy the updates to the production environment. Δ

Step 1: Back Up and Copy Your Existing Files

- 1 Create two directories for your existing files:
 - ☐ a backup directory, which contains copies of your files from the previous release
 - ☐ a maintenance directory, which contains the file updates from the maintenance release
- 2 Copy the following items from the document root directory of your existing clickstream collection server to the backup directory and the maintenance directory:
 - ☐ the robots.txt file
 - ☐ the sastag folder

Step 2: Copy the Updates from the Maintenance Release

The files in the *SAS-installation-directory\SASDataSurveyorforClickstreamDataMidTier\2.1\content\css* directory contain the updates from the maintenance release. You must replace the files in your maintenance directory with these updated files.

Copy the following files from the *SAS-installation-directory\SASDataSurveyorforClickstreamDataMidTier\2.1\content\css* directory to your maintenance directory:

- ☐ /sastag/SASTag.js
- ☐ /sastag/SASTagDebug.js
- ☐ /sastag/SASTagRead.js
- ☐ /sastag/SASSiteConfig.js.orig
- ☐ /robots.txt.orig

Note: When you copy the `/sastag/SASSiteConfig.js.orig` and `/robots.txt.orig` files to the maintenance directory, rename these files `/sastag/SASSiteConfig.js` and `/robots.txt`, respectively. △

Step 3: Edit the robots.txt File

In a previous release, you might have specified customizations in the `robot.txt` file. These customizations are available from the `robot.txt` in your backup directory. To restore these customizations, modify `robots.txt` in your maintenance directory.

Step 4: Edit the SASSiteConfig.js Files

In a previous release, you might have specified customizations in the `SASSiteConfig.js` files. These customized files are usually named `SASSiteConfig_name.js`. To determine whether you customized these files in a previous release, review the files in the backup directory.

To restore any customizations:

- 1 Copy any `/sastag/SASSiteConfig.js` files in your maintenance directory. Rename the copied files `SASSiteConfig_name.js`. For example, you might copy `/sastag/SASSiteConfig.js` to `/sastag/SASSiteConfig_MYSITE.js`.
- 2 Modify the `SASSiteConfig_name.js` file to restore any customizations that you made in the previous release.

Step 5: Apply the Updates to Your Root Directory

Copy the files from your maintenance directory to the document root of the collection server.

Step 6: Verify the Installation

To verify that data is being collected, view the logs from the clickstream collection server.

Configuring the SAS Data Surveyor for Clickstream Data Plug-ins

Overview of the Configuration Process

After installing the maintenance release, you must configure SAS Data Surveyor for Clickstream Data. There are three main steps for configuring SAS Data Surveyor for Clickstream Data:

- 1 Unconfigure the previous release.
- 2 Configure SAS Data Surveyor for Clickstream Data to apply the maintenance updates.
- 3 Verify that the maintenance release was applied successfully.

Step 1: Unconfigure the Previous Release

To remove any configuration from the previous installation of SAS Data Surveyor for Clickstream Data:

- 1 Run *SAS-installation-directory\SASDeploymentManager\9.2\config.exe*. In Windows operating environments, this path is typically **C:\Program Files\SAS\SASDeploymentManager\9.2\config.exe**.
After you select the language that you want to use, the SAS Deployment Manager opens.
- 2 In the Select Configuration Task step, select **Remove Existing Configuration**, and then click **Next**.
- 3 In the Select Configuration Directory/Level step, select the configuration directory and the level that was used in the previous configuration, and then click **Next**.
- 4 In the Specify Connection Information step, specify the user ID and password for the metadata server, and then click **Next**.
- 5 In the Select Product Configurations to Remove step, select **DataSurvey Clickstrm Plugs 2.1** from the list of products to remove, and then click **Next**.
- 6 In the Summary step, verify that SAS Data Surveyor for Clickstream Data Plug-ins appears under Stage 1: Unconfigure Products, and then click **Start**.

Check marks indicate that each step in the unconfiguration process was successful. If any warnings or errors were generated during the unconfiguration, then review the log that is located in **<configuration directory>/<level>/Logs/Configure/datasvyweblog_unconfigure_yyyy_mm_dd_hh.mm.ss.log**, where *yyyy_mm_dd_hh.mm.ss* is the date and time stamp for the log. Click **Next**.

- 7 In the Additional Resources step, click **Review Manual Configuration Instructions**. Because no manual steps are required for SAS Data Surveyor for Clickstream Data, you should see this text:

The metadata for the SAS Data Surveyor for Clickstream Data has been removed.

Step 2: Configure to Apply the Maintenance Updates

To configure SAS Data Surveyor for Clickstream Data after applying the maintenance release:

- 1 From the SAS Software Depot where you installed the maintenance release, run *setup.exe*. The SAS Deployment Wizard opens.
Note: You might have more than one order number in your software depot. To specify an order number, run **setup.exe -order nnnn** where *nnnn* is the order number. △
- 2 In the Select Deployment Task step, select **Install SAS Software**, and then click **Next**.

Note: If the Review Required Updates step appears, then the SAS Deployment Wizard has detected a maintenance release in your SAS Software Depot that has not been applied. If you do not want to install this maintenance update, you must close the SAS Deployment Wizard and restart it by using the **-nosasupdate** option. For example, type **setup.exe -order nnnn -nosasupdate** where *nnnn* is the order number. △

- 3 In the Select Deployment Type step, select **Perform a Planned Deployment**. Verify that the **Install SAS Software** option is deselected and that the **Configure SAS Software** option is selected. Click **Next**.

- 4 In the Specify Deployment Plan step, select the deployment plan that was used to install the maintenance release. Click **Next**.
- 5 In the Select Configuration Prompting Level step, select **Typical**, and then click **Next**.
- 6 In the Specify Configuration Information step, verify the configuration directory and level, and then click **Next**.

If a message appears stating that the configuration directory and level already exist, click **Yes** to continue with the configuration.

- 7 Complete the remaining steps in the SAS Deployment Wizard. When you are prompted to select the context for the SAS Application Server, select the correct context for your site.

Note: By default, the SASMeta context is selected. However, for most sites, the SASMeta context is not the correct value. You need to specify the context for the SAS Application Server at your site. △

- 8 In the Deployment Summary step, click **Start**.

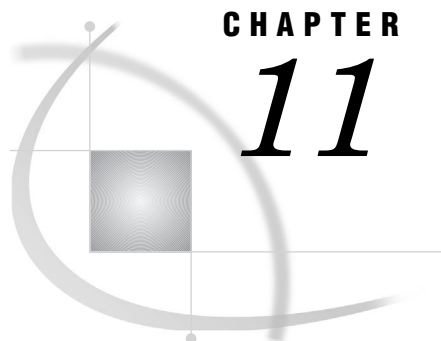
Check marks indicate that each step in the configuration process was successful. If any warnings or errors were generated during the configuration, then review the log that is located in **<configuration directory>/<level>/Logs/Configure/datasvyweblog_unconfigure_yyyy_mm_dd_hh.mm.ss.log**, where *yyyy_mm_dd_hh.mm.ss* is the date and time stamp for the log. Click **Next**.

- 9 In the Additional Resources step, click **Review Manual Configuration Instructions**. Although no manual steps are required for SAS Data Surveyor for Clickstream Data, review this information carefully.

Click **Finish**.

Step 3: Verify Your Installation

To verify that the maintenance release was applied successfully, review the contents of the **/Products** folder by using the **Folders** tab in SAS Data Integration Studio or SAS Management Console. If you see **/Products/SAS Data Surveyor for Clickstream Data/2.1/Clickstream Templates/Multiple Log Templates/Customer Integration Template**, then you correctly configured SAS Data Surveyor for Clickstream Data after applying the maintenance release.



CHAPTER

11

SAS Enterprise Miner

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About the Maintenance Release for SAS Enterprise Miner

It is recommended that SAS Enterprise Miner customers who are running SAS 9.2 apply both the second maintenance release for SAS 9.2 and the product-specific maintenance release for SAS Enterprise Miner 6.1 (available in December 2009).

Your site might have previously installed a maintenance release for SAS 9.2. If not, then the second maintenance release for SAS 9.2 is applied when you install the product-specific maintenance release for SAS Enterprise Miner. To determine what version of SAS and SAS Enterprise Miner you have installed at your site, generate a deployment registry report. For more information, see SAS Note 35968 at <http://support.sas.com/kb/35/968.html>.

The following table explains what happens when you install the maintenance release for SAS Enterprise Miner.

Table 11.1 Possible Scenarios When Installing the Maintenance Release for SAS Forecast Server

SAS Products Currently Installed at Your Site	What Happens When You Install the Maintenance Release for SAS Enterprise Miner
SAS 9.2 TS2M0 SAS Enterprise Miner	<p>In your SAS log, you see TS2M0. This Technical Support number corresponds to SAS 9.2, which shipped in March 2009. When you install the maintenance release for SAS Enterprise Miner 6.1, SAS automatically applies the second maintenance release for SAS 9.2.</p> <p>Because you are installing the maintenance release for SAS 9.2 as part of the product-specific maintenance release for SAS Enterprise Miner, you do not need to complete the steps in Chapter 4, “Installing the Second Maintenance Release for SAS 9.2,” on page 19 and Chapter 5, “Maintenance Configuration for the Second Maintenance Release for SAS 9.2,” on page 23 chapters in Part 2, Maintenance Releases for SAS 9.2. (If you were installing only the second maintenance release for SAS 9.2, then you would need to complete all of the steps in Part 2.)</p> <p>However, you do need to reconfigure all of the SAS products at your site. Except for SAS Enterprise Miner, complete the post-configuration steps for all SAS products at your site. For more information, see Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43.</p>
SAS 9.2 with the second maintenance release already installed SAS Enterprise Miner 6.1	<p>In the SAS log, you see TS2M2. This Technical Support number corresponds to the second maintenance release for SAS 9.2, which shipped in September 2009. When you applied this maintenance release, you completed the steps in Part 2, Maintenance Release for SAS 9.2.</p> <p>When you install the maintenance release for SAS Enterprise Miner 6.1, SAS recognizes that you have the second maintenance release for SAS 9.2 installed and does not apply this maintenance release again. Therefore, you do not need to complete the steps in Part 2, Maintenance Releases for SAS 9.2 again. Instead, you simply need to install the maintenance release for SAS Enterprise Miner 6.1 and then reconfigure SAS Enterprise Miner.</p>

After installing the maintenance release, the product number for SAS Enterprise Miner is 6.1 M2.

How to Apply the Maintenance Release for SAS Enterprise Miner 6.1

Step 1: Installation

Note: If you have SAS Text Miner installed at your site or if you are adding SAS Text Miner in this release, do not follow these instructions. Instead, see the *Installation*

and Upgrade Instructions for SAS Text Miner 4.2 at <http://support.sas.com/documentation/onlinedoc/txtminer/index.html>. △

To install the maintenance release for SAS Enterprise Miner 6.1:

- 1 Terminate all active SAS sessions, daemons, spawners, and servers. It is important to stop the SAS servers in the inverse order that they were started. For more information, see “Overview of Server Operation” in the *SAS Intelligence Platform: System Administration Guide*.
- 2 Verify that all machines where you are installing the maintenance release have SAS Enterprise Miner 6.1 installed.

Note: When installing a maintenance release, you must use the same operating system accounts that you used to install SAS 9.2. △

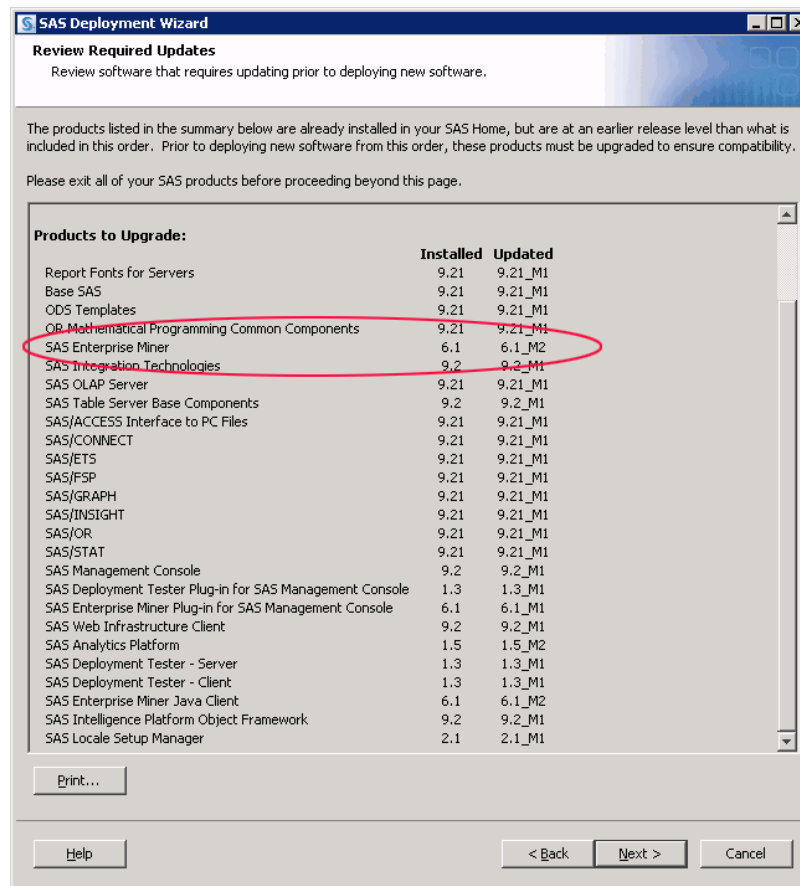
- 3 For each machine in your deployment, start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot.

Table 11.2 How to Start the SAS Deployment Wizard

Operating System	How to Start the SAS Deployment Wizard
Windows	Double-click setup.exe in the highest-level directory of your SAS Software Depot.
UNIX	Execute setup.sh from the highest-level directory of your SAS Software Depot.

- 4 In the Select Deployment Task step, select **Install SAS software**, and then click **Next**.
- 5 In the Review Required Updates step, review the list of software updates. You should see an item for SAS Enterprise Miner. Click **Next**.

Note: The list of products to upgrade depends on what you have licensed at your site and if you have applied any other maintenance releases.



△

- 6 In the Deployment Summary step, click **Start**.

When the installation is complete, the Deployment Summary opens. For more information about the contents of this file, see “About the Deployment Summary” on page 19.

Note: The list of products in the Deployment Summary depends on what you have licensed at your site and if you have applied any other maintenance releases. △

- 7 Except for SAS Enterprise Miner, complete the post-configuration steps for SAS products at your site. For more information, see Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43.

Note: You will reconfigure SAS Enterprise Miner in “Step 2: Reconfiguring SAS Enterprise Miner” on page 78. △

- 8 Restart your SAS servers, except for the SAS Analytics Platform server.

Note: You will restart the SAS Analytics Platform server after you reconfigure SAS Enterprise Miner. △

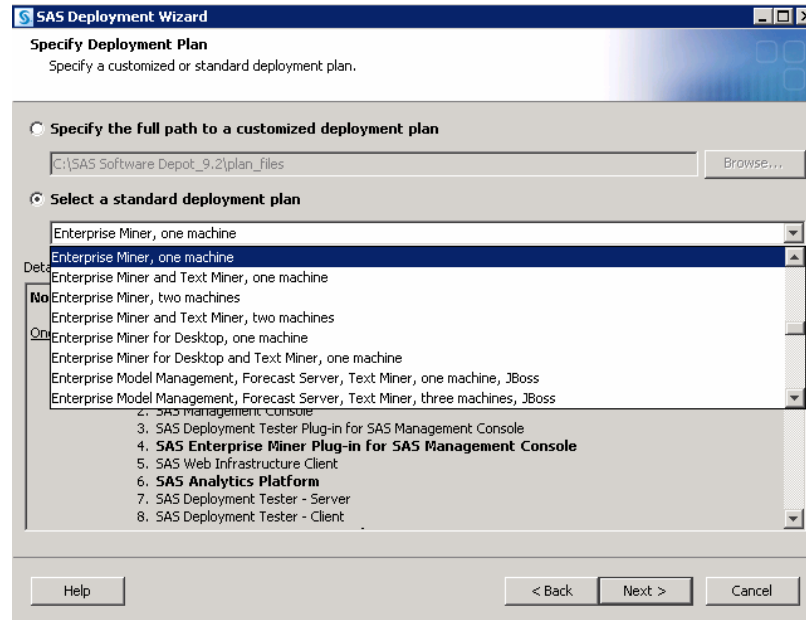
Step 2: Reconfiguring SAS Enterprise Miner

To reconfigure SAS Enterprise Miner:

- 1 Start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot.

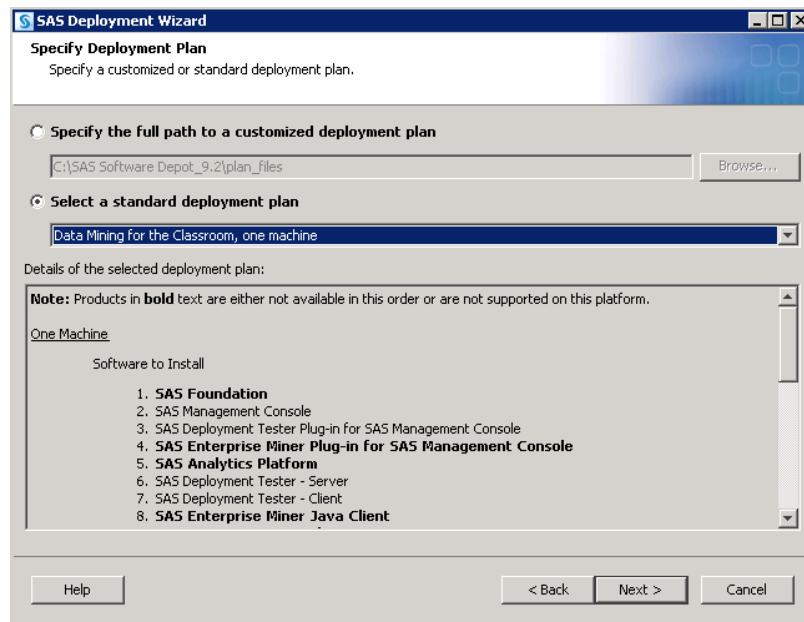
Note: In a multi-tier deployment, SAS Enterprise Miner needs to be reconfigured only on the machine server where the SAS Analytics Platform is installed. △

- 2 In the Select Deployment Task step, select **Install SAS software**, and then click **Next**.
- 3 In the Select Deployment Type step, select **Configure SAS software**, and then click **Next**.
- 4 In the Specify Deployment Plan step, select the plan that was used for the original configuration of SAS Enterprise Miner, and then click **Next**.



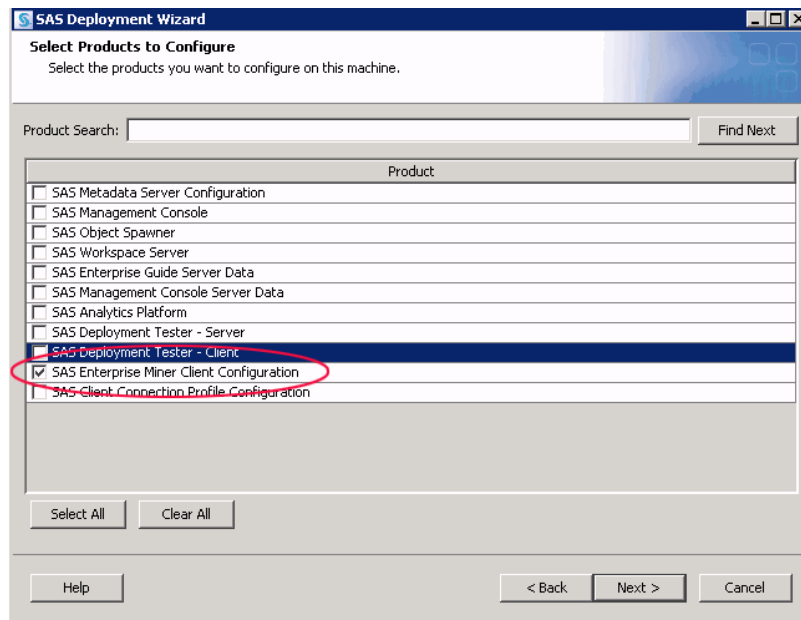
Products in bold are not available either because they are not part of your SAS license or they are not supported on this platform.

Note: If you are installing SAS Data Mining for the Classroom, select the standard deployment plan for SAS Data Mining for the Classroom.



△

- 5 In the Select Products to Configure step, select **SAS Enterprise Miner Client Configuration**, and then click **Next**.

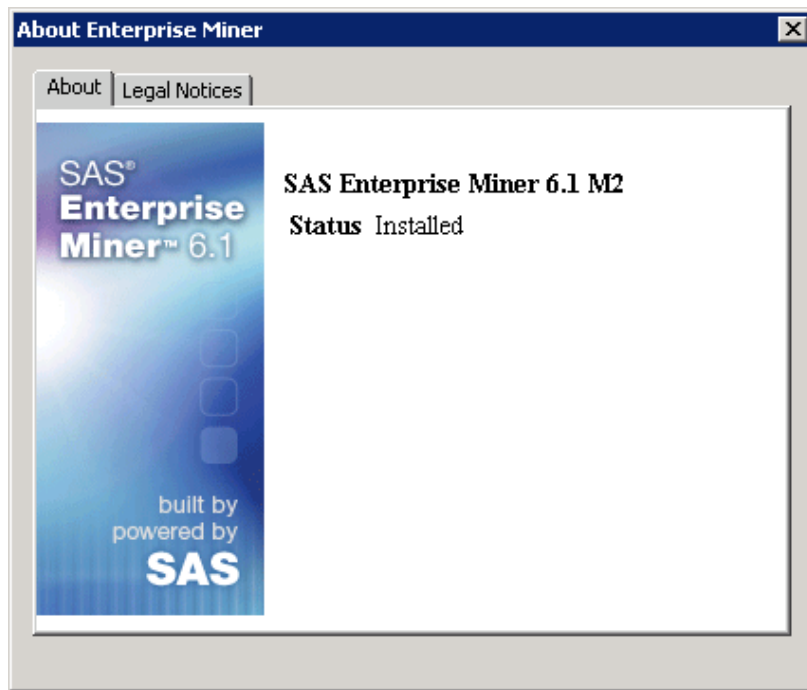


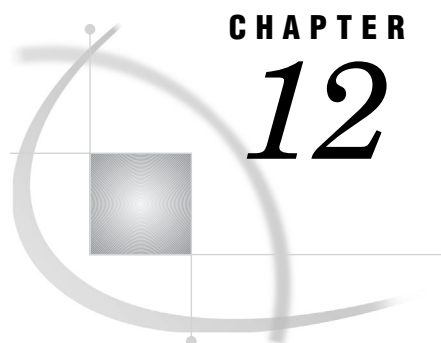
Note: If you are installing SAS Data Mining for the Classroom, then the configuration option is **SAS Data Mining for the Classroom Configuration**. △

- 6 Enter the appropriate values for the remaining steps in the SAS Deployment Wizard. In the Deployment Summary step (which is the final step), click **Start**.
- 7 Restart the SAS Analytics Platform by completing the steps in “Restarting the SAS Analytics Platform Server” on page 25.

Step 3: Validating Your Installation

To validate your installation, open SAS Enterprise Miner and select **Help ► About**.





CHAPTER

12

SAS Forecast Server

About the Maintenance Release 83

How to Install the Maintenance Release 83

About the Maintenance Release

The maintenance release for SAS Forecast Server 3.1 (available in December 2009) includes localized Help. After installing the maintenance release, the product number for SAS Forecast Server is 3.1_M2.

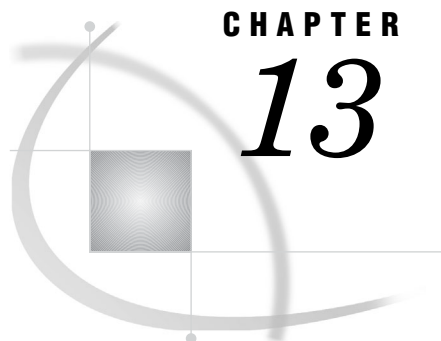
How to Install the Maintenance Release

Your site might have previously installed a maintenance release for SAS 9.2. If not, then the second maintenance release for SAS 9.2 is applied when you install the product-specific maintenance release for SAS Forecast Server. To determine what version of SAS and SAS Forecast Server you have installed at your site, generate a deployment registry report. For more information, see SAS Note 35968 at <http://support.sas.com/kb/35/968.html>.

The following table explains what happens when you install the maintenance release for SAS Forecast Server.

Table 12.1 Possible Scenarios When Installing the Maintenance Release for SAS Forecast Server

SAS Products Currently Installed at Your Site	What Happens When You Install the Maintenance Release for SAS Forecast Server
SAS 9.2 Phase 2 SAS Forecast Server 3.1	<p>In your SAS log, you see TS2M0. This Technical Support number corresponds to SAS 9.2 Phase 2, which shipped in March 2009. When you install the maintenance release for SAS Forecast Server 3.1, SAS automatically applies the second maintenance release for SAS 9.2.</p> <p>Because you are installing the maintenance release for SAS 9.2 as part of the product-specific maintenance release for SAS Forecast Server, you do not need to complete the steps in Chapter 4, “Installing the Second Maintenance Release for SAS 9.2,” on page 19 and Chapter 5, “Maintenance Configuration for the Second Maintenance Release for SAS 9.2,” on page 23 chapters in Part 2, Maintenance Releases for SAS 9.2. (If you were installing only the second maintenance release for SAS 9.2, then you would need to complete all of the steps in Part 2.)</p> <p>However, you do need to reconfigure all of the SAS products at your site. Complete the post-configuration steps for all SAS products at your site. For more information, see Chapter 6, “Product-Specific Updates and Post-Configuration Requirements,” on page 43.</p>
SAS 9.2 with the second maintenance release already installed SAS Forecast Server 3.1	<p>In the SAS log, you see TS2M2. This Technical Support number corresponds to the second maintenance release for SAS 9.2, which shipped in September 2009. When you applied this maintenance release, you completed the steps in Part 2, Maintenance Release for SAS 9.2.</p> <p>When you install the maintenance release for SAS Forecast Server 3.1, SAS recognizes that you have the second maintenance release for SAS 9.2 installed and does not apply this maintenance release again. Therefore, you do not need to complete the steps in Part 2, Maintenance Releases for SAS 9.2 again. Instead, you simply need to install the maintenance release for SAS Forecast Server 3.1.</p>



CHAPTER

13

SAS OpRisk Monitor

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About the SAS OpRisk Monitor 4.1_M2 Release

The second maintenance release for SAS OpRisk Monitor 4.1 incorporates the hot fix that was released on October 16, 2009. For more information about this hot fix, see <http://ftp.sas.com/techsup/download/hotfix/HF2/A38.html>.

Additionally, the second maintenance release for SAS OpRisk Monitor 4.1 has the following changes:

- Localization support has been added for several languages.

Table 13.1 Added Localization Support for Various Languages

Type of Support	Languages
User interface only	European Portuguese (PT)
	Japanese (JA)
	Korean
	Simplified Chinese (ZH)
	Ukrainian (UK)
User interface with limited right-to-left support	Hebrew (IW)
User interface and Help	French (FR)
	German (DE)
	Italian (IT)
	Polish (PL)
	Russian (RU)
	Spanish (ES)

- The SAS OpRisk Monitor Administrative Tools now prompt for a user ID and password if the values are not available in the db.properties file.
- Performance has improved when loading the Control Profile page in Control Testing.

- The `orm_job_autoexec_orig.sas` file allows metadata options to be set for interactive or batch SAS sessions that need to run stored process code. The `metaserver`, `metaport`, and `metarepository` options are activated whenever a stored process is run through an interactive or batch SAS session.
- To eliminate long delays when building a task list, a query has been optimized for the **Test plans awaiting your acceptance** listing.
- Limited bidirectional script support has been added to provide right-to-left support, so Web pages are rendered in the appropriate direction. If you configure your Web browser to use a bidirectional language such as Arabic, the page is rendered right-to-left. Note that there are still some known issues.
- A `NullPointerException` has been fixed in this release making actions on the **Control Testing Control Profile** tab available.
- Action plans that are deleted from inside of an issue are removed from the **Action Plans** list.
- Response table data can now be exported from the Control Profile Measure page.
- The following changes are related to Oracle WebLogic 10:
 - Support for saving, applying, or deactivating an Incident under investigation status is now available.
 - When clicking a link in the Certification Periods table, the appropriate page now opens.

How to Apply the Maintenance Release for SAS OpRisk Monitor

Step 1: Installation

To install the maintenance release for SAS OpRisk Monitor:

- 1 Terminate all active SAS sessions, daemons, spawners, and servers. It is important to stop the SAS servers in the inverse order that they were started. For more information, see “Overview of Server Operation” in the *SAS Intelligence Platform: System Administration Guide*.

- 2 Verify that all machines where you are installing the maintenance release have SAS OpRisk Monitor installed.

Note: When installing a maintenance release, you must use the same operating system accounts that you used to install SAS 9.2. △

- 3 For each machine in your deployment, start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot.

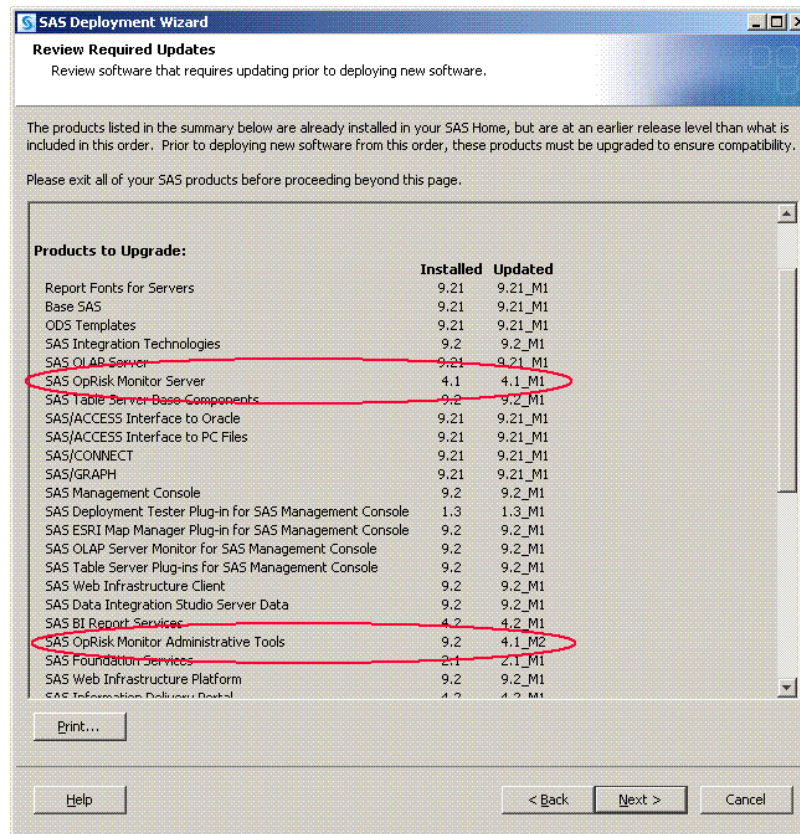
Table 13.2 How to Start the SAS Deployment Wizard

Operating System	How to Start the SAS Deployment Wizard
Windows	Double-click setup.exe in the highest-level directory of your SAS Software Depot.
UNIX	Execute setup.sh from the highest-level directory of your SAS Software Depot.

- 4 In the Select Deployment Task step, select **Install SAS software**, and then click **Next**.

- 5 In the Review Required Updates step, review the list of software updates. You should see an item for SAS OpRisk Monitor. Click **Next**.

Note: The list of products to upgrade depends on what you have licensed at your site and if you have applied any other maintenance releases. △



- 6 In the Deployment Summary step, click **Start**.

When the installation is complete, the Deployment Summary opens. For more information, see .

- 7 Complete the post-configuration steps for SAS products at your site. For more information, see .

Note: You will reconfigure SAS OpRisk Monitor in “Step 2: Reconfiguring SAS OpRisk Monitor” on page 87. △

- 8 Restart all SAS servers.

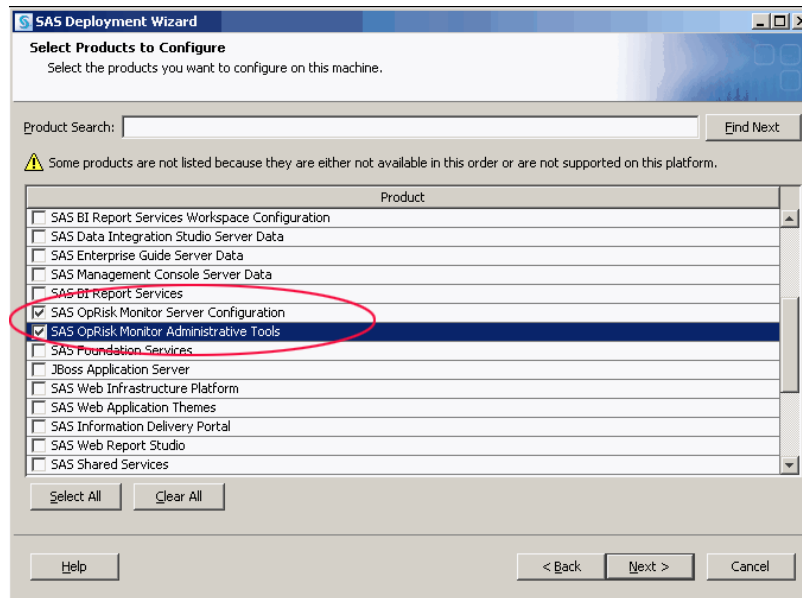
Step 2: Reconfiguring SAS OpRisk Monitor

To reconfigure SAS OpRisk Monitor:

- 1 Start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot.
- 2 In the Select Deployment Task step, select **Install SAS software**, and then click **Next**.
- 3 In the Select Deployment Type step, select **Configure SAS software**, and then click **Next**.

- 4 In the Specify Deployment Plan step, select the plan that was used for the original configuration of SAS OpRisk Monitor, and then click **Next**.
- 5 In the Select Products to Configure step, select **SAS OpRisk Monitor Server Configuration** and **SAS OpRisk Monitor Administrative Tools**, and then click **Next**.

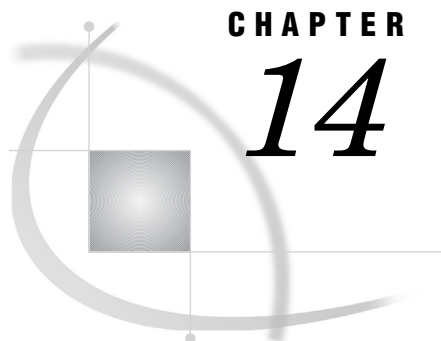
Note: You do not need to reconfigure the SAS OpRisk Monitor middle tier. △



- 6 Enter the appropriate values for the remaining steps in the SAS Deployment Wizard. In the Deployment Summary step (which is the final step), click **Start**.

Step 3: Validating Your Installation

To validate your installation, open SAS OpRisk Monitor and select **Help ► About**.



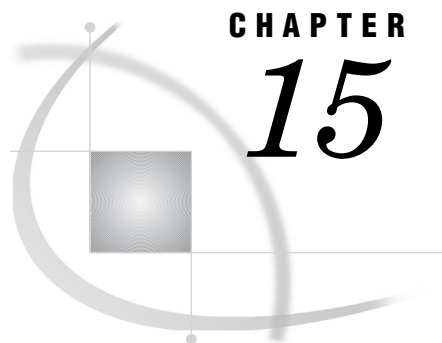
SAS OpRisk VaR

About the Maintenance Release 89

About the Maintenance Release

It is recommended that SAS OpRisk VaR customers who are running SAS 9.2 apply both the second maintenance release for SAS 9.2 and the second maintenance release for SAS OpRisk VaR (available in February 2010). The maintenance release for SAS OpRisk VaR applies important changes to both the server and client.

For more information about the maintenance release for SAS OpRisk VaR, contact your SAS account representative.



SAS Risk Dimensions

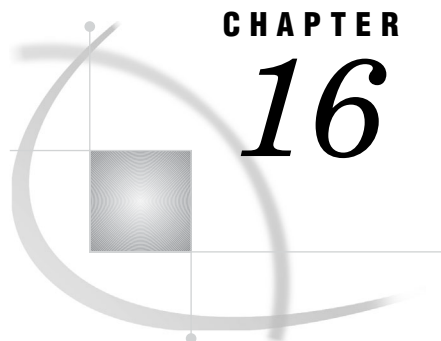
About the Maintenance Release 91

About the Maintenance Release

It is recommended that SAS Risk Dimensions customers who are running SAS 9.2 apply both the second maintenance release for SAS 9.2 and the maintenance release for SAS Risk Dimensions (available in November 2009). The maintenance release for SAS Risk Dimensions applies important changes to both the server and the client.

For more information about the maintenance release for SAS Risk Dimensions, contact your SAS account representative.

For more information about the second maintenance release for SAS 9.2, see “Summary of Each Maintenance Release for SAS 9.2” on page 6.



CHAPTER

16

SAS Web Analytics

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General Information

SAS Web Analytics 5.3 is not supported with the second maintenance release for SAS 9.2. To use SAS Web Analytics with the second maintenance release for SAS 9.2, you need to order SAS Web Analytics 5.3.1.

It is recommended that you back up your jobs, Web marts, and associated metadata before installing the second maintenance release for SAS 9.2 and SAS Web Analytics 5.3.1.

Follow the maintenance release instructions “How to Install the Second Maintenance Release for SAS 9.2” on page 21 up to but not including individual machine configuration.

Note: Ensure that you have rebuilt and redeployed all Web application servers “Configuring Your Web Application Servers” on page 28 except SAS Web Analytics. The SAS Web Analytics Web application server is rebuilt and redeployed when SAS Web Analytics 5.3.1 is configured. △

Summary of Configuration Steps

These are the general steps. For details about each step, see the following topic.

Note: It is important that you follow the configuration steps in this order. △

- 1 Rename or save the appropriate SAS Web Analytics metadata folders to 5.3.
- 2 Unconfigure SAS Web Analytics 5.3 and the SAS Data Surveyor for Clickstream Data.
- 3 Rename or save the appropriate SAS Web Analytics metadata folders and update the generated transformations in SAS Data Integration Studio.
- 4 Configure SAS Web Analytics 5.3.1 and the SAS Data Surveyor for Clickstream Data.
- 5 Add users and groups by using SAS Management Console. For instructions, see the *SAS Web Analytics 5.3: Administrator's Guide, Second Edition*.
- 6 Delete SAS Web Report Studio reports that are no longer supported.
- 7 Migrate 5.3 Web marts to 5.3.1. For instructions, see the *SAS Web Analytics 5.3: Administrator's Guide, Second Edition*.

Details of Configuration Steps

- 1 Before you remove the existing configuration, you must complete these tasks:
 - a Start SAS Management Console.
 - b Click the **Folders** tab, and then expand the **Products** folder. Rename the **SAS Web Analytics** folder to **SAS Web Analytics 5.3**.

Note: This step is necessary only if you have customized reports or information maps, or if you have added search engine bid data. △
 - c Expand the **Shared Data** folder. Rename the **Web Analytics** folder to **SAS Web Analytics 5.3**.

CAUTION:
If you skip step 1c, you will lose all job customizations. △
- 2 Unconfigure SAS Web Analytics 5.3 by completing these steps:
 - a Start all SAS servers and Web application servers that are running the SAS Information Portal and SAS Web Report Studio.
 - b Navigate to *SAS-installation-directory/SASDeploymentManager/9.2 directory*.
 - c Invoke SAS Deployment Manager by running the **config.exe** file (for Windows) or the **./config.sh** file (for UNIX).
 - d Select **Remove Existing Configuration**.
 - e Select these components:
 - **SAS Data Surveyor for Clickstream Data**. For steps for configuring this component, see “Configuring the Middle Tier of SAS Data Surveyor for Clickstream Data” on page 70.
 - **SAS Web Analytics 5.3 -- SAS Web Analytics Server Configuration**
 - **SAS Web Analytics Server Config 5.3 -- SAS Web Analytics Server Configuration**
 - f Click **Start**.
- 3 When the unconfigure program finishes, complete these steps:
 - a In SAS Management Console:
 - i Click the **Folders** tab, and then expand the **Products** Folder.
 - ii Rename the **SAS Web Analytics 5.3** folder to **SAS Web Analytics**.

CAUTION:
If you have made changes to SAS Web Analytics 5.3 information maps or SAS Web Report Studio reports, make sure you rename them. Information maps and SAS Web Report Studio reports in the SAS Web Analytics folder are overwritten during configuration. △
 - b Follow the directions for updating generated transformations“SAS Data Integration Studio” on page 44 in SAS Data Integration Studio.
- 4 Configure the components that are required by SAS Web Analytics in the SAS Deployment Wizard. For descriptions of SAS Deployment Wizard features, see “Preparing to Install and to Configure” in *SAS Intelligence Platform: Installation and Configuration Guide*.

Use the following commands to open the SAS Deployment Wizard in your SAS Software Depot.

For Windows:

setup.exe

For UNIX:

./setup.sh

a Select **Configure**.

b Select the following components to configure:

i **SAS Data Surveyor for Clickstream Data Plug-ins**

For steps for configuring this component, see “Configuring the SAS Data Surveyor for Clickstream Data Plug-ins” on page 71.

ii the Web application server (JBoss, WebSphere, or WebLogic)

iii **SAS Web Analytics Mid-Tier**

iv **SAS Web Analytics Server Configuration**

v **SAS Web Analytics Public Type Metadata**

c If your previous setup included multiple Web application servers, then you need to select multiple Web application servers.

d Make a selection for **SAS Web Analytics Dependencies -- Select Application Server Context**. Typically, you would select **SASApp**.

CAUTION:

Selecting **SASMeta** causes the configuration process to stop running due to errors. △

e Make a selection for **SAS Web Analytics Server Configuration -- Select SAS Application Server Context**. Typically, you would select **SASApp**.

CAUTION:

Selecting **SASMeta** causes a fatal error in configured SAS Web Analytics components. △

f Select or enter the directory that was used in SAS Web Analytics for the Weba library.

g Complete the configuration steps for your setup.

5 Add users and groups in SAS Management Console as sasadm@saspw. For instructions, see the *SAS Web Analytics 5.3: Administrator's Guide, Second Edition*.

a Add recommended groups to the **Web Analytics Administrators** group.

b Add users to the **Web Analytics Administrators**, **Web Analytics Analyst**, and **Web Analytics Report Users** groups.

6 If SAS Web Report Studio reports exist for SAS Web Analytics 5.3, it is recommended that you delete the Browser and Referrer Search Term reports because they are no longer supported. To delete the reports:

a Start SAS Management Console.

b Click the **Folders** tab.

c Navigate to **/Products/SAS Web Analytics/Reports/Browsers and Platforms**, and then delete Browser.srx.

d Navigate to **/Products/SAS Web Analytics/Reports/Referrer and Search Term Reports**, and then delete Referrer Search Term.srx.

7 Migrate 5.3 Web marts to 5.3.1 using SAS Data Integration Studio. For instructions, see *SAS Web Analytics 5.3: Administrator's Guide, Second Edition*.

Glossary

hot fix

a software update that is based on customer-reported defects and that have a status of alert or high-priority, or that might affect a large number of customers. Hot fixes are coordinated by Technical Support and made available to customers on the hot fix download site.

object spawner

a program that instantiates object servers that are using an IOM bridge connection. The object spawner listens for incoming client requests for IOM services. When the spawner receives a request from a new client, it launches an instance of an IOM server to fulfill the request. Depending on which incoming TCP/IP port the request was made on, the spawner either invokes the administrator interface or processes a request for a UUID (Universal Unique Identifier).

planned deployment

a method of installing and configuring a SAS business intelligence system. This method requires a deployment plan that contains information about the different hosts that are included in the system and the software and SAS servers that are to be deployed on each host. The deployment plan then serves as input to an installation and configuration tool called the SAS Deployment Wizard.

SAS configuration directory

the location where configuration information for a SAS deployment is stored. The configuration directory contains configuration files, logs, scripts, repository files, and other items for the SAS software that is installed on the machine.

SAS Deployment Manager

a cross-platform utility that manages SAS deployments. The SAS Deployment Manager supports functions such as updating passwords for your SAS deployment, rebuilding SAS Web applications, and removing configurations.

SAS Deployment Wizard

a cross-platform utility that installs and initially configures many SAS products. Using a SAS installation data file and, when appropriate, a deployment plan for its initial input, the wizard is designed to prompt the customer for all the remaining input at the start of the session so that the customer does not have to monitor an entire deployment.

SAS installation directory

the location where your SAS software is installed. This location is the parent directory to the installation directories of all SAS products. The SAS installation directory is also referred to as SAS Home in the SAS Deployment Wizard.

SAS Management Console

a Java application that provides a single user interface for performing SAS administrative tasks.

SAS Metadata Server

a multi-user server that enables users to read metadata from or write metadata to one or more SAS Metadata Repositories. The SAS Metadata Server uses the Integrated Object Model (IOM), which is provided with SAS Integration Technologies, to communicate with clients and with other servers.

update mode

an operating state of the SAS Deployment Wizard in which users are required to install software updates before they can perform any other deployment tasks. The SAS Deployment Wizard automatically goes into update mode when it determines that the current SAS order contains new versions or maintenance updates to the deployed products in a given SAS installation directory.

upgrade

a type of software update that introduces new functionality. An upgrade generally involves a new release number. See also hot fix.

Web application

an application that is accessed via a Web browser over a network such as the Internet or an intranet. SAS Web applications are Java Enterprise Edition (JEE) applications that are delivered via Web application archive (WAR) files. The applications can depend on Java and non-Java Web technologies.

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