

# **SAS<sup>®</sup> Enterprise Miner<sup>™</sup> 6.2**

## **Single-User Installation Guide**



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**SAS® Enterprise Miner™ 6.2: Single-User Installation Guide**

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# Contents

<i>What's New</i>	<i>v</i>
Overview	v
SAS Add-In for Microsoft Office Ships with SAS Enterprise Miner	v
New SAS Deployment Tools	v
New Configuration Management Tool	v
Deployment Enhancements	vi
Port Changes	vi
<b>Chapter 1  Introduction to the SAS Enterprise Miner Single-User Installation</b>	<b>1</b>
What is SAS Enterprise Miner?	1
About the SAS Enterprise Miner Single-User Installation	1
About User Accounts	2
What Is Covered in This Document?	2
Prerequisites	3
Deploying SAS Enterprise Miner for a Single-User	3
Previous Versions of SAS Enterprise Miner	4
Accessibility Features in the SAS Intelligence Platform Products	5
<b>Chapter 2  Deploying SAS Enterprise Miner in Single-User Mode</b>	<b>7</b>
Preparing to Install and to Configure	7
Install and Configure SAS Enterprise Miner Interactively	8
Review SAS Deployment Wizard Documents	22
Validating Your Deployment	23
<b>Appendix 1  Removing Your SAS Enterprise Miner 6.2 Deployment</b>	<b>25</b>
Overview of Uninstalling Your SAS Enterprise Miner 6.2 Deployment	25
Unconfigure Your SAS Enterprise Miner 6.2 Deployment	25
Uninstall Your SAS Enterprise Miner 6.2 Deployment	27
<b>Appendix 2  Default Ports Used By Your Deployment</b>	<b>29</b>
SAS Default Ports	29
<b>Appendix 3  Recommended Reading</b>	<b>31</b>
Recommended Reading	31
<b>Glossary</b>	<b>33</b>
<b>Index</b>	<b>37</b>



# What's New

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## Overview

The *SAS Enterprise Miner: Single-User Installation Guide* explains how to install and initially configure SAS Enterprise Miner in single-user mode.

This document contains new material on the following enhancements and changes to the SAS Intelligence Platform:

- inclusion of the SAS Add-In for Microsoft Office
- new SAS deployment tools
- new configuration management tool
- deployment enhancements
- port changes

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## SAS Add-In for Microsoft Office Ships with SAS Enterprise Miner

The SAS Add-In 4.3 for Microsoft Office is bundled with SAS Enterprise Miner 6.2.

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## New SAS Deployment Tools

SAS 9.2 has new deployment tools:

- SAS Download Manager enables you to download your SAS order by using an HTTP connection over the Internet.
- SAS Deployment Wizard combines SAS installation and initial configuration into one wizard, replacing the SAS Software Navigator and the SAS Configuration Wizard.

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## New Configuration Management Tool

The new SAS Deployment Manager enables you to remove configuration information (including metadata definitions, configuration files, and Windows services) for one or more components of your installation.

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## Deployment Enhancements

SAS 9.2 has the following deployment enhancements:

- Automated initial SAS configuration eliminates most post-installation manual configuration scripts.
- Up-front user input enables you to avoid having to monitor the entire wizard session.
- The initial SAS installation data file is contained within the SAS Software Depot.
- Automated deployment is possible across multiple machines (capture-replay feature).

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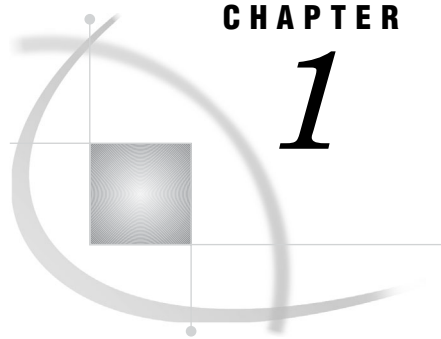
## Port Changes

The following port changes have been made:

- addition of three new SAS object spawner port banks: 8801, 8811, and 8821
- elimination of the SAS object spawner load balancing port
- addition of a metadata utilities SAS Workspace Server port: 8591

*Note:* In SAS 9.2, two or more workspace servers can share the same port even if they are running at the same time. △

- addition of a SAS Deployment Tester server port: 10021



## CHAPTER

## 1

# Introduction to the SAS Enterprise Miner Single-User Installation

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<i>What is SAS Enterprise Miner?</i>	1
<i>About the SAS Enterprise Miner Single-User Installation</i>	1
<i>About User Accounts</i>	2
<i>What Is Covered in This Document?</i>	2
<i>Prerequisites</i>	3
<i>Deploying SAS Enterprise Miner for a Single-User</i>	3
<i>Overview: Deploying SAS Enterprise Miner for a Single-User</i>	3
<i>Step 1: Review the Prerequisites, Ports, and Alert-level SAS Notes</i>	4
<i>Step 2: Designate a Windows User Account</i>	4
<i>Step 3: Install and Configure SAS</i>	4
<i>Previous Versions of SAS Enterprise Miner</i>	4
<i>Accessibility Features in the SAS Intelligence Platform Products</i>	5

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## What is SAS Enterprise Miner?

SAS Enterprise Miner 6.2 contains a collection of sophisticated analysis tools that have a common user-friendly interface that you can use to create and compare multiple data mining models. Statistical tools include clustering, Kohonen self-organizing maps (SOM), variable selection, trees, linear and logistic regression, and neural networking. Data preparation tools include outlier detection, variable transformations, data imputation, random sampling, and the partitioning of data sets (into train, test, and validate data sets). Advanced visualization tools enable you to quickly and easily examine large amounts of data in multidimensional histograms and to graphically compare modeling results. For more information, see the SAS Enterprise Miner online Help.

## About the SAS Enterprise Miner Single-User Installation

The SAS Intelligence Platform includes some analytics clients such as SAS Enterprise Miner in a multi-user format, as described in the “Introduction to Installing the SAS Intelligence Platform” in the *SAS Intelligence Platform: Installation and Configuration Guide*. Multiple-user deployments provide for a number of security- and server-based services, but might seem unnecessarily complex to those who do not need such services. Therefore, the single-user installation is a simpler process by which you can install SAS Enterprise Miner on a number of stand-alone Microsoft Windows machines. For more information about exactly which SAS products are installed, see “What Is Covered in This Document?” on page 2.

## About User Accounts

The SAS Enterprise Miner single-user installation simplifies the user account requirements typically seen in a multi-user deployment. After the deployment is complete, you use the same user account to run SAS Enterprise Miner and any other SAS client. For the SAS Unrestricted User and the SAS Trusted User accounts, the SAS Deployment Wizard reuses the same password that you specify for the SAS Installer account. (By default, the password is set to never expire for these accounts.) For more information about user accounts, see “Users, Groups, and Roles” in the *SAS Intelligence Platform: Security Administration Guide*.

The following table summarizes user accounts and their passwords:

**Table 1.1** User Accounts and Their Passwords

Function	User ID	Password
Windows operating system account used to install SAS software (SAS Installer account).	Windows user account that you supply.	Password for the Windows user account that you supply.
Windows operating system account used to log on to SAS software.	Same as the SAS Installer account.	Same as the SAS Installer account.
SAS internal account used as the SAS Unrestricted User.	sasadm@saspw	Same as the SAS Installer account.
SAS internal account used as the SAS Trusted User.	sastrust@saspw	Same as the SAS Installer account.

## What Is Covered in This Document?

This document describes how to use the SAS Deployment Wizard to install and initially configure SAS Enterprise Miner on a single machine for a single user.

*Note:* The migration tools do not fully support the migration of single-user deployments, but you can follow steps to use SAS Enterprise Miner 5.2 and 5.3 projects in SAS Enterprise Miner 6.2. For more information, see the *SAS Enterprise Miner: Migration Guide*, available at <http://support.sas.com/documentation/onlinedoc/miner/index.html>. △

Depending on the deployment plan that you select, the following products are also installed:

- SAS Enterprise Miner for Desktop
- SAS Text Miner
- SAS Data Mining for the Classroom

With each deployment plan (these plans are identified later in this document) the following products are also installed:

- SAS Enterprise Guide



- SAS ETS Model Editor
- SAS Management Console
- SAS Metadata Server
- SAS Workspace Server
- SAS Analytics Platform server

The complete listing of SAS products installed depends on the deployment plan file that you use and what is actually contained in your SAS 9.2 custom order. For more information, see “About SAS Deployment Plans” on page 7.

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## Prerequisites

You will need the following to install and execute the SAS products described in this document. For more information, see SAS 9.2 system requirements at <http://support.sas.com/documentation/installcenter/92/documents>.

### Windows operating system

Windows XP, Windows Vista, or Windows 7. (Windows XP Home and Windows Vista Home versions are not supported.)

### Windows user ID and password

The user name must not contain any spaces. The user must be a member of the Windows Administrators group. This user should be created before running the SAS Deployment Wizard.

*Note:* SAS requires that the installer account have the Windows user right **Log on as batch job** assigned. If this right is not assigned, then the SAS Deployment Wizard does it for you. When the wizard makes this assignment, you must reboot your machine before using SAS Enterprise Miner. △

### Available disk space

You will need approximately eight GB available on your hard drive for use by the SAS software that you are deploying. This requirement might vary depending upon which deployment plan you use during the installation.

### SAS 9.2 order

You obtain your SAS 9.2 order either by downloading it or by receiving media. This document assumes that you have your SAS 9.2 order in the form of a SAS Software Depot from which you can then install SAS. For more information, see “About SAS Software Depots” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

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## Deploying SAS Enterprise Miner for a Single-User

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### Overview: Deploying SAS Enterprise Miner for a Single-User

The following list summarizes the steps required to install and configure SAS Enterprise Miner in single-user mode on a single machine:

- 1 Review the prerequisites, ports, and alert-level SAS Notes.

- 2 Designate an operating system user account with which you will install and run SAS.
- 3 Using the SAS Deployment Wizard, install and initially configure SAS.

The following sections provide a brief description of each of these tasks. Subsequent chapters in the guide provide the step-by-step instructions for the tasks.

## Step 1: Review the Prerequisites, Ports, and Alert-level SAS Notes

Review the prerequisites, ports, and any alert-level SAS Notes. See the following sources for information about this task:

- Prerequisites:  
“Prerequisites” on page 3
- Ports used in the SAS Enterprise Miner single-user deployment:  
“SAS Default Ports” on page 29
- Alert-level SAS Notes:  
<http://support.sas.com/kb/?ct=51000>  
(Click “Search Problem Notes” in the left-hand navigation pane.)

## Step 2: Designate a Windows User Account

Designate a Windows user account that is a member of the Windows Administrators group on the machine on which you’re deploying SAS 9.2.

Use this account to install SAS and to log in to the various analytics clients after installation.

## Step 3: Install and Configure SAS

Install and configure your SAS software using the SAS Deployment Wizard, an installation and configuration tool that is supplied by SAS.

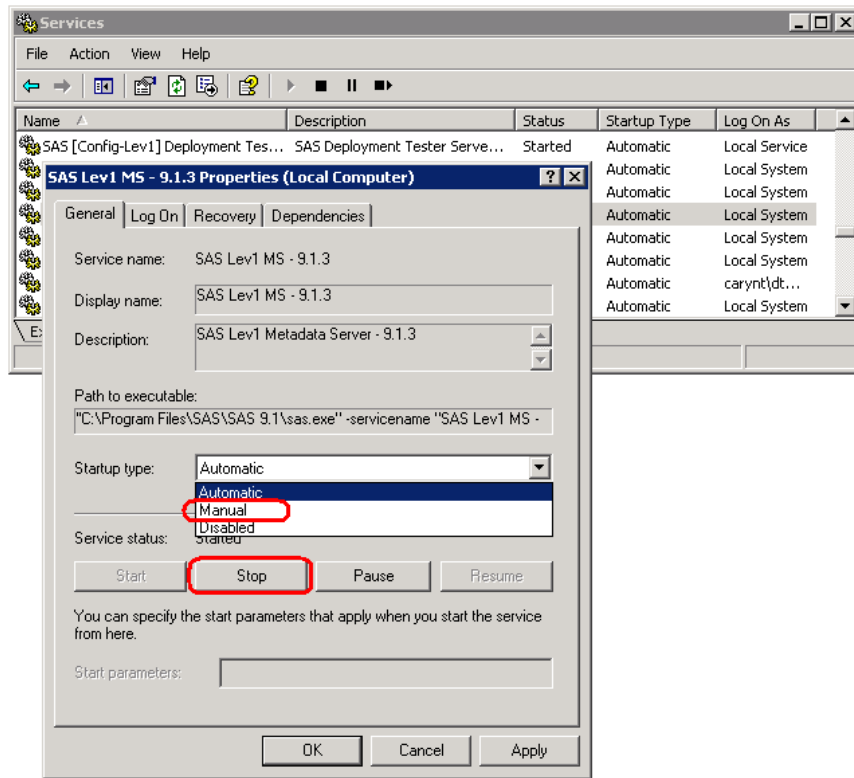
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## Previous Versions of SAS Enterprise Miner

The procedures described in this document will install and initially configure SAS Enterprise Miner 6.2. If you have an earlier copy of SAS Enterprise Miner on your machine, these procedures will *not* affect your existing installation. However, you will be able to run only one version of SAS at a time.

*Note:* The migration tools do not fully support the migration of single-user deployments, but you can follow steps to use SAS Enterprise Miner 5.2 and 5.3 projects in SAS Enterprise Miner 6.2. For more information, see the *SAS Enterprise Miner: Migration Guide*, available at <http://support.sas.com/documentation/onlinedoc/miner/index.html>. △

In particular, you must stop and set to **manual** the currently installed SAS services on the machine on which you are installing SAS Enterprise Miner. In the Windows Services snap-in, stop each SAS service and set the service to **manual**. (The Services snap-in is accessible from Windows **Start** menu in the Control Panel **Administrative Tools ► Services ► Action ► Properties**). In this way, the port used by each SAS service will be freed for the newer version and the earlier service won’t start automatically each time you reboot your machine.

**Figure 1.1** Setting SAS 9.1.3 Services to Manual Startup

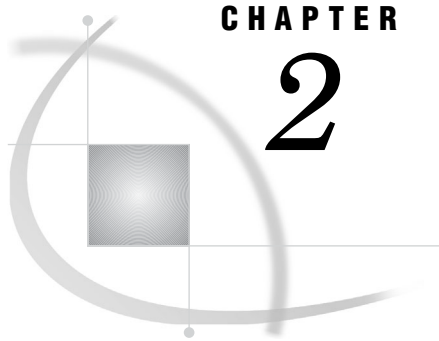
If you want to remove your previous SAS version, see your SAS documentation for the particular version in question. For information about how to remove SAS Enterprise Miner 5.3, see “Uninstalling the SAS Intelligence Platform” in the *SAS 9.1.3 Intelligence Platform Installation Guide* at <http://support.sas.com/913administration>.

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## Accessibility Features in the SAS Intelligence Platform Products

For information about accessibility for any of the products mentioned in this book, see the documentation for that product. If you have questions or concerns about the accessibility of SAS products, send e-mail to [accessibility@sas.com](mailto:accessibility@sas.com) or visit the SAS accessibility site at: <http://www.sas.com/govedu/accessibility.html>.





## CHAPTER

## 2

## Deploying SAS Enterprise Miner in Single-User Mode

<i>Preparing to Install and to Configure</i>	7
<i>SAS Deployment Wizard Options</i>	7
<i>About SAS Deployment Plans</i>	7
<i>Install and Configure SAS Enterprise Miner Interactively</i>	8
<i>Review SAS Deployment Wizard Documents</i>	22
<i>Validating Your Deployment</i>	23
<i>Validate Your Servers</i>	23
<i>Validate Your Clients</i>	24

## Preparing to Install and to Configure

### SAS Deployment Wizard Options

The *SAS Deployment Wizard* is a cross-platform utility that installs and configures many SAS products. The wizard uses a SAS installation data file (SID file) and a deployment plan (plan.xml) for its initial input. The wizard is designed to prompt you for all of the remaining input at the start of the session so that you do not have to monitor an entire deployment.

There are two major ways that you can run the SAS Deployment Wizard:

- interactively
  - a standard method of providing input using fields in pages with a Back and Next button navigation method.
- non-interactively
  - a record and playback feature that enables you to automate a SAS installation for use on multiple machines. This feature is designed for large-scale enterprise deployments to prevent users from having to manually provide input on every page each time the SAS Deployment Wizard is run on a machine. For more information, see “Automating the SAS Installation on Multiple Machines” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

### About SAS Deployment Plans

A *SAS deployment plan* describes what software should be installed and configured on each machine in a SAS deployment. A deployment plan is an XML file that is used as input to the SAS Deployment Wizard. There are two types of deployment plans: standard and custom. The SAS Enterprise Miner 6.2 single-user installation is supported only by a small subset of *standard* deployment plans. The standard deployment plans that support the single-user installation are the following:

**Table 2.1** Single-User Deployment Plans and the Products They Deploy

Products	Deployment Plans				
	EM one machine	EM for Desktop one machine	EM and TM one machine	EM and TM for Desktop one machine	Data Mining for the Classroom, one machine
SAS Enterprise Miner, 6.2	X	X	X	X	X
SAS/STAT 9.2.2	X	X	X	X	X
SAS Text Miner Client 4.2			X	X	X
SAS Enterprise Guide 4.3	X	X	X	X	X
SAS Add-In for Microsoft Office 4.3	X	X	X	X	X
SAS Rapid Predictive Modeler 6.2	X	X	X	X	X

These standard plans are a part of your SAS 9.2 order. Later, you will select one of these plans to deploy your SAS software. The deployment plan that you choose must match the license for the order. If you select the incorrect SAS Enterprise Miner deployment plan, the following note appears in the deployment wizard pane below the selected deployment plan: “Products in Bold text are either not available in this order or are not supported on the platform.”

At the end of the SAS deployment, the SAS Deployment Wizard makes a copy of the deployment plan it used. The deployment plan can be helpful when you want to add another SAS product or change your SAS configuration. The wizard stores a copy of the deployment plan in the SAS configuration directory in the utilities directory, and inserts a date-and-time stamp to the deployment plan filename. For example:

**C:\SAS\Config\Lev1\Utilities\plan.2010-05-31-11.04.xml**

To download the latest SAS 9.2 standard deployment plans that also contain a corresponding architectural diagram and pre-installation checklist, go to <http://support.sas.com/installcenter/plans>.

## Install and Configure SAS Enterprise Miner Interactively

Installing and configuring SAS Enterprise Miner interactively with the SAS Deployment Wizard consists of two main phases:

- Providing installation information such as the following:
  - SAS installation directory name
  - deployment plan
- Providing configuration information such as the following:

- SAS configuration directory name
- required user account credentials

This topic describes most of the configuration pages that you encounter during the configuration phase of a SAS 9.2 deployment. The type and number of configuration-related pages you encounter depends on the deployment plan that you choose and the contents of your SAS 9.2 custom order. For information about all SAS Deployment Wizard prompts, see the online Help for the wizard page in question.

To install and configure SAS Enterprise Miner interactively, complete these steps:

- 1 The migration tools do not fully support the migration of single-user deployments, but you can follow steps to use SAS Enterprise Miner 5.2 and 5.3 projects in SAS Enterprise Miner 6.2. For more information, see the *SAS Enterprise Miner: Migration Guide*, available at <http://support.sas.com/documentation/onlinedoc/miner/index.html>.
- 2 Verify that you have performed the earlier required steps outlined in “Prerequisites” on page 3.
- 3 Log on to your Windows machine with a user ID that is a member of the Windows Administrators group.
- 4 If you have an earlier version of SAS Enterprise Miner installed, make sure that the SAS services in that earlier deployment are stopped and set to manual. For more information, see “Previous Versions of SAS Enterprise Miner” on page 4.
- 5 Open a Windows command prompt and start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot by using the following command:

**setup.exe -record -deploy**

Windows Vista and later requires that you run the SAS Deployment Wizard program using administrator privileges. Right-click setup.exe and select **Run as administrator**.

*Note:* Using the **-record -deploy** options causes the wizard to create a response file that records the inputs that you supplied. This can be helpful when you want to repeat the deployment on other machines or you want to troubleshoot a deployment issue. △

By default, the deployment wizard writes the response file in the following location:

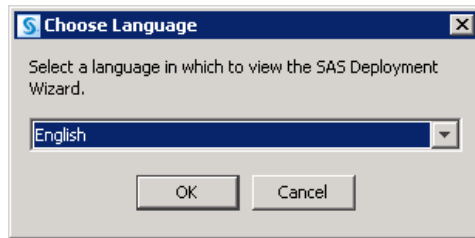
**C:\Documents and Settings\current-user\sdwresponse.properties**

For information about how to play back a response file, see “Playing Back a SAS Deployment Wizard Response File” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

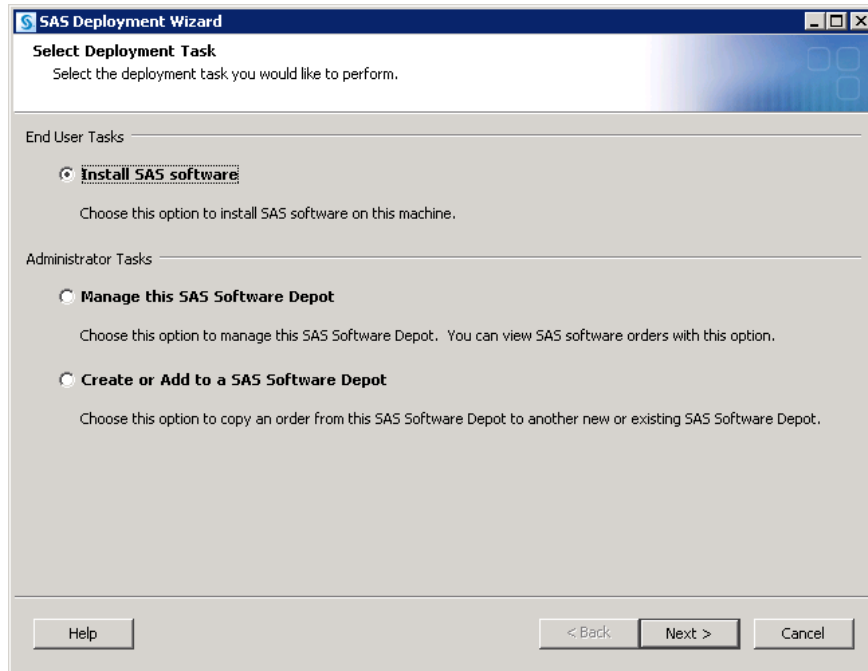
You should see a welcome page similar to the following:



- 6 Select the language that you want the SAS Deployment Wizard to use when it displays text.



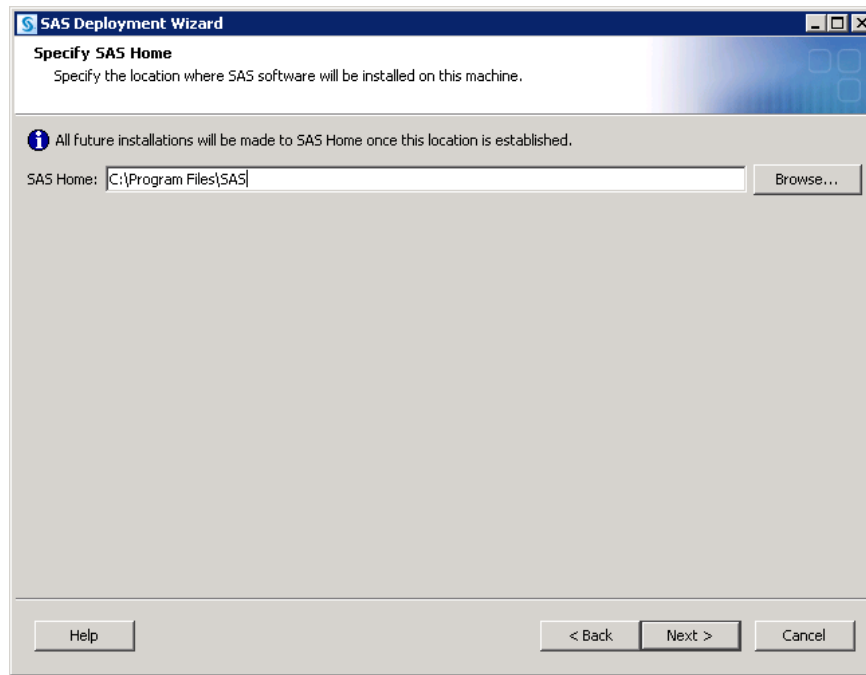
- 7 Select **Install SAS Software**.



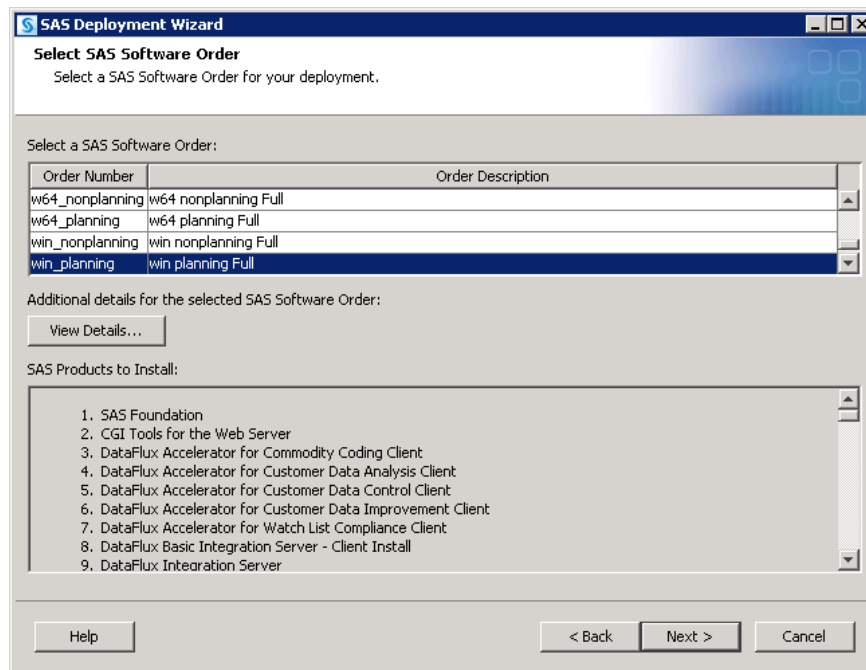
- 8 On the Specify SAS Home page, enter the location (SAS Home) where you want to install SAS. If you have an earlier version of SAS Enterprise Miner on your machine, be sure to enter a different path here.

*Note:* The deployment wizard prompts you for SAS Home the first time that you run the wizard. On any subsequent sessions on this machine, the wizard uses the previously specified location for SAS Home.  $\triangle$

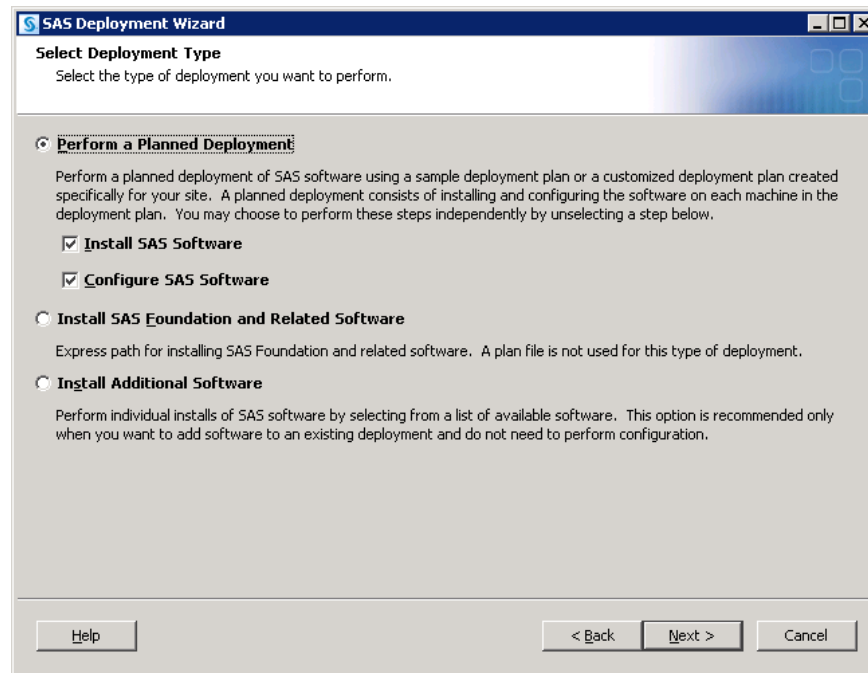




- 9 If you have more than one order in your SAS Software Depot, you will see a page that prompts you to choose the order that you want to use.



- 10 Select **Perform a Planned Deployment**, and make sure that **Install SAS Software** and **Configure SAS Software** are both checked.

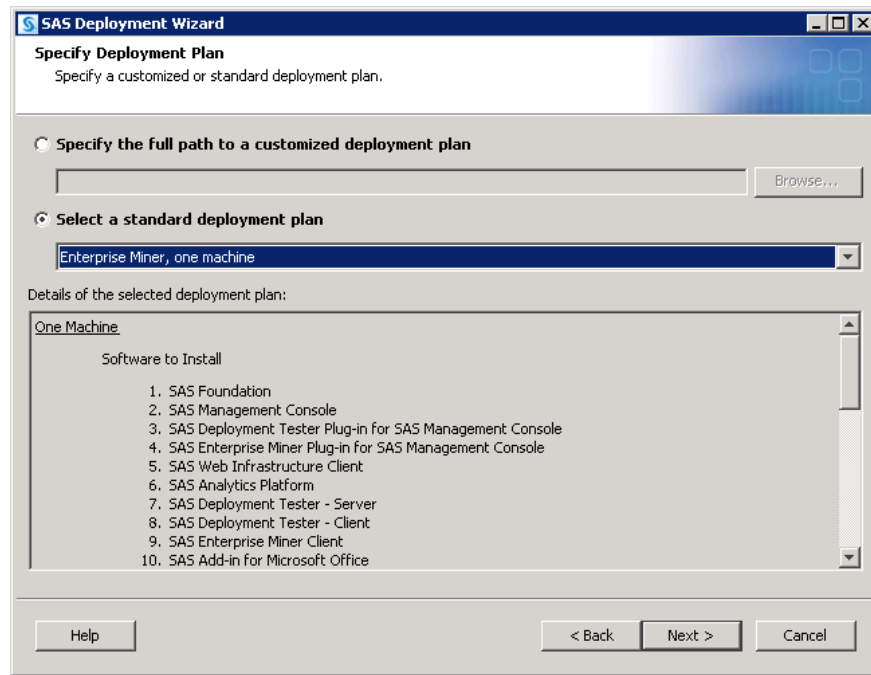


11 Choose **Select a standard deployment plan**, and then choose one of the following plans:

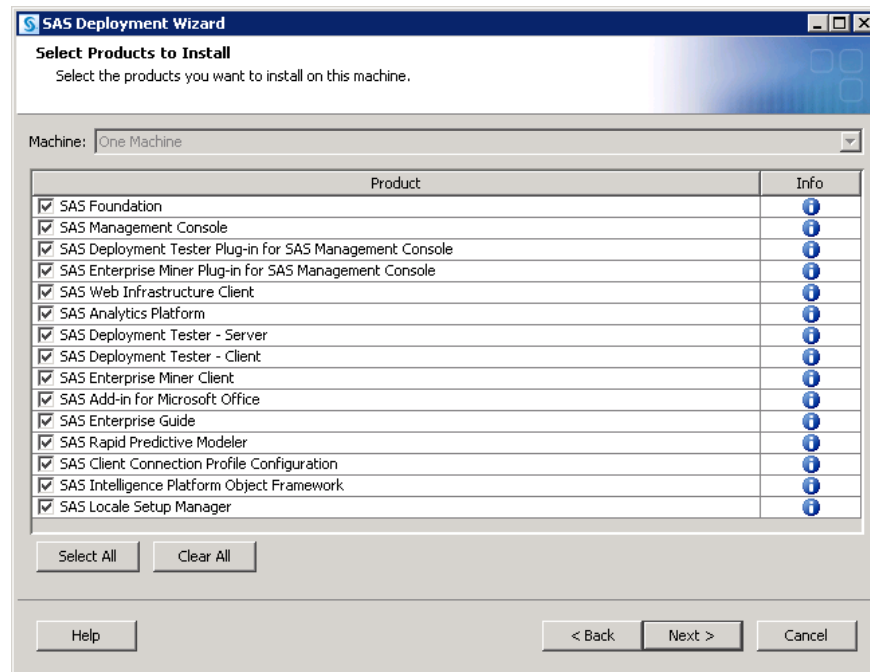
- ☐ Enterprise Miner, one machine
- ☐ Enterprise Miner for Desktop, one machine
- ☐ Enterprise Miner and Text Miner, one machine
- ☐ Enterprise Miner for Desktop and Text Miner, one machine
- ☐ Data Mining for the Classroom, one machine

The deployment plan that you choose must match the license for the order. If you select the incorrect SAS Enterprise Miner deployment plan, the following note appears in the deployment wizard pane below the selected deployment plan: “Products in Bold text are either not available in this order or are not supported on the platform.”

For more information about these deployment plans, see “About SAS Deployment Plans” on page 7.




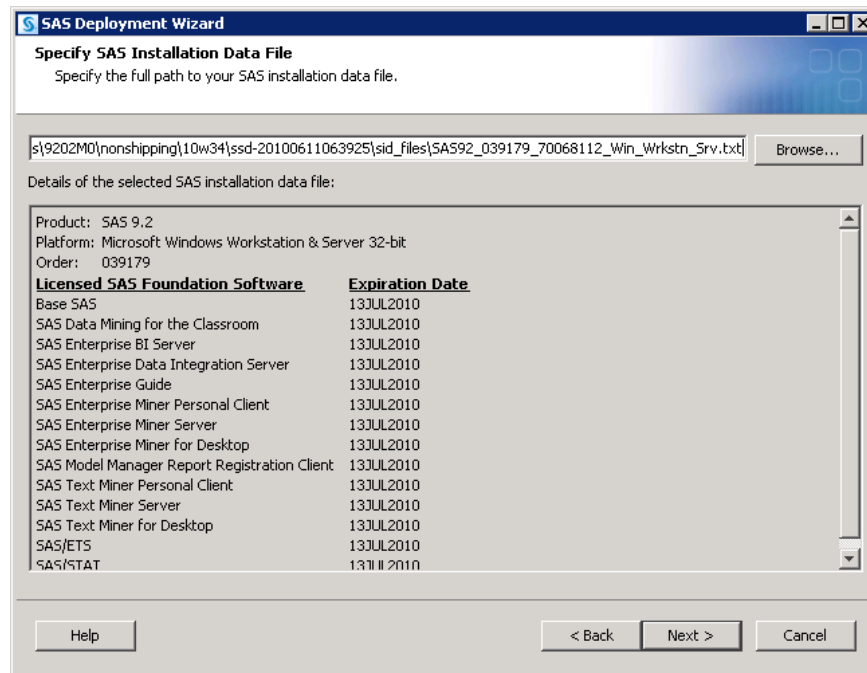
12 By default, all products displayed will be installed.



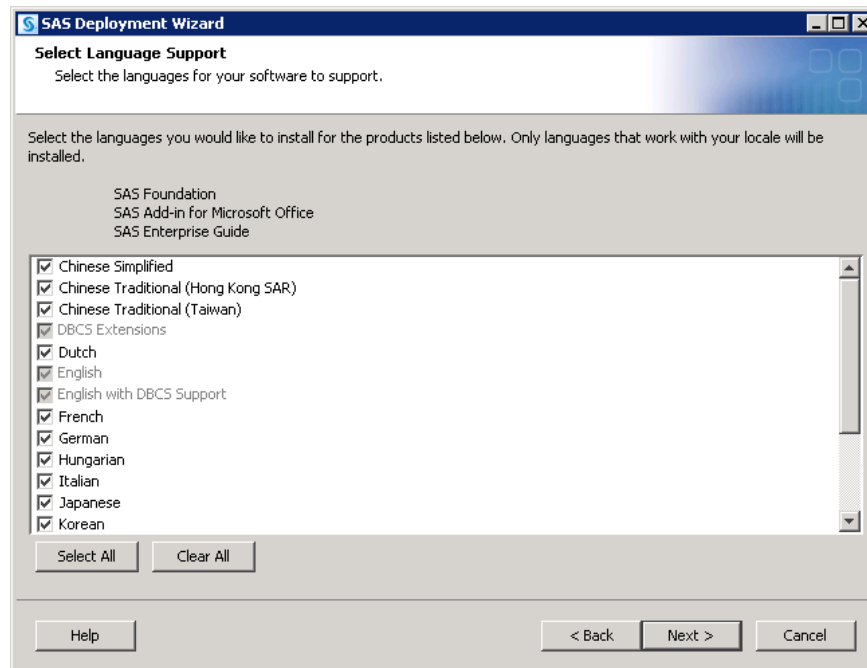
13 Specify the location of the SAS installation data file that contains information about the software that you have licensed for the current machine.

**CAUTION:**

If you do not use the installation data file that supports the products you are planning to install and configure on this machine, you might experience errors later when you are trying to use the products.    



**14** Deselect any languages that you do not want SAS to support. By default, SAS attempts to support all languages that your machine's operating system is configured for.



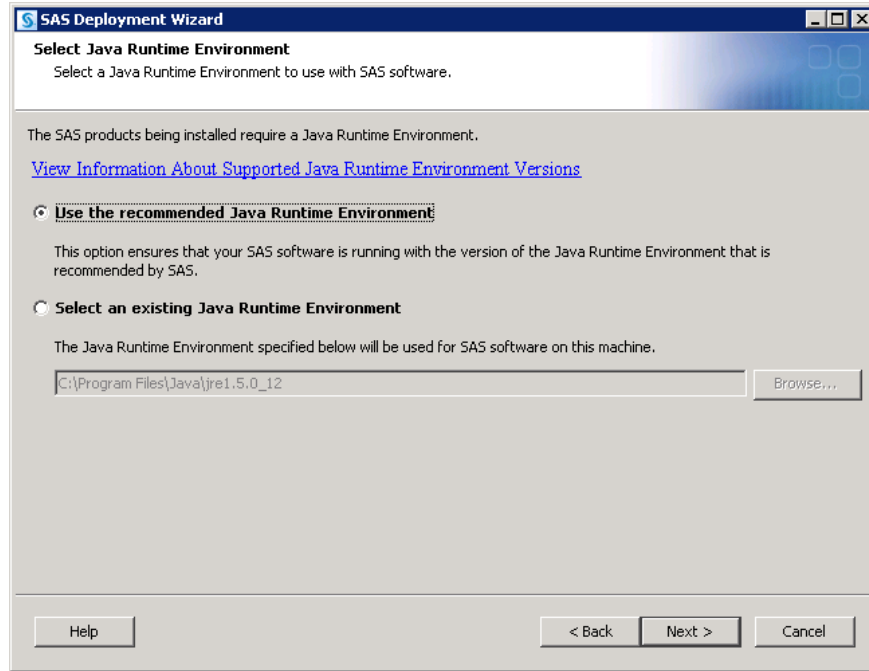
**15** The deployment wizard prompts you to do one of the following:

**Use the recommended Java Runtime Environment**

(Recommended) select to have the deployment wizard install the required JRE on this machine.

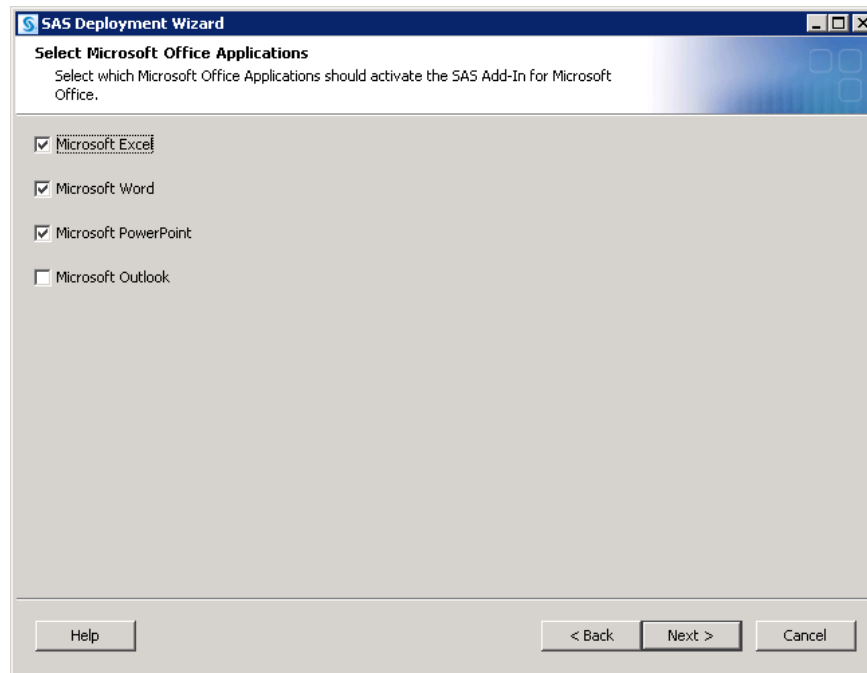
**Select an existing Java Runtime Environment**      Select to specify the path to a JRE that you have already installed on this machine.

For more information, see <http://support.sas.com/resources/thirdpartysupport/v92/jres.html>.



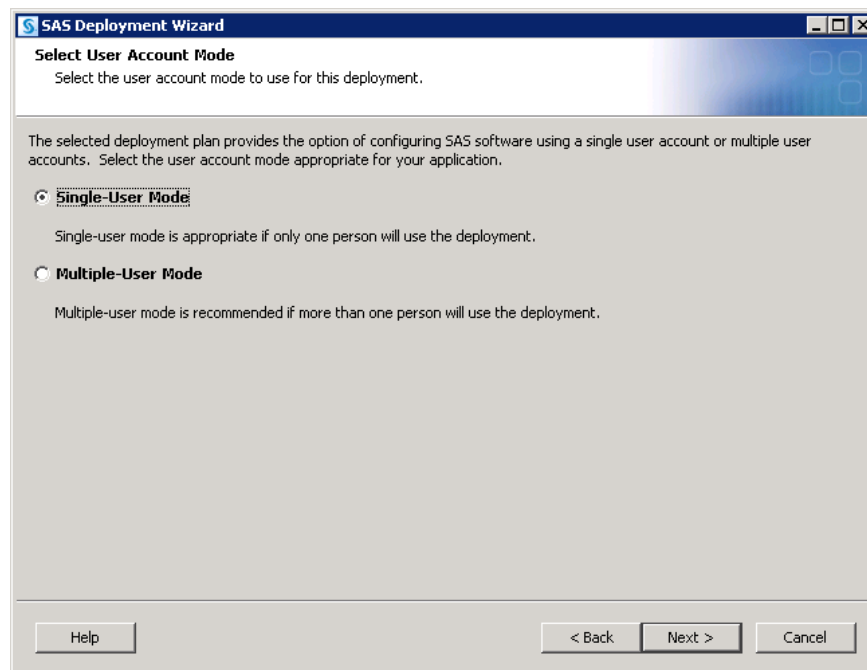
- 16** On the Select Microsoft Office Applications page, choose the Microsoft Office applications for which you want the SAS Add-In for Microsoft Office activated.

When the Office application is launched, the activated SAS add-in automatically loads, and users see either a **SAS** tab on the Ribbon (Microsoft Office 2010 and 2007) or a **SAS** menu and toolbars (Microsoft Office 2003). To activate the SAS Add-In for Microsoft Office in Microsoft Excel, Word, PowerPoint, or Outlook after the installation, you can run SwitcherUtility.exe. For more information, see the Help for the SAS Add-In for Microsoft Office.



17 On the Select User Account Mode page, choose **Single-User Mode**.

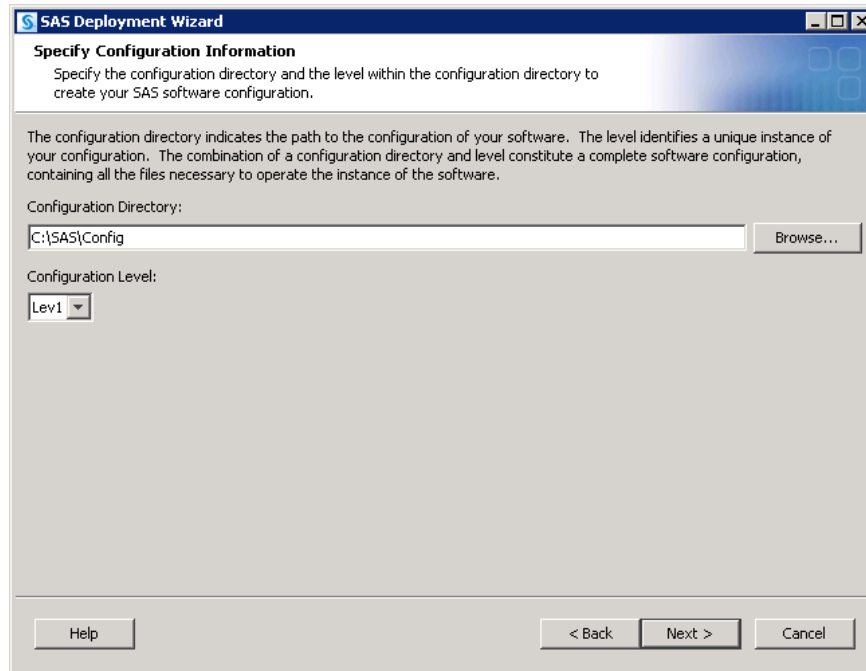
*Note:* When deploying SAS Enterprise Miner for the Desktop, the SAS Deployment Wizard automatically selects **Single-User Mode** and you do not see this wizard page. △



18 On the Specify Configuration Information page, select the path where the SAS Deployment Wizard will write SAS configuration files and logs and the level you want to deploy (for example, Lev1 = production).

*Note:* The last digit of the default port number reflects the configuration level that you select in the SAS Deployment Wizard. For example, when you select **Lev1**, the default port for the metadata server is 8561. If you choose another level, such as **Lev2**, the wizard changes the default port to 8562. △

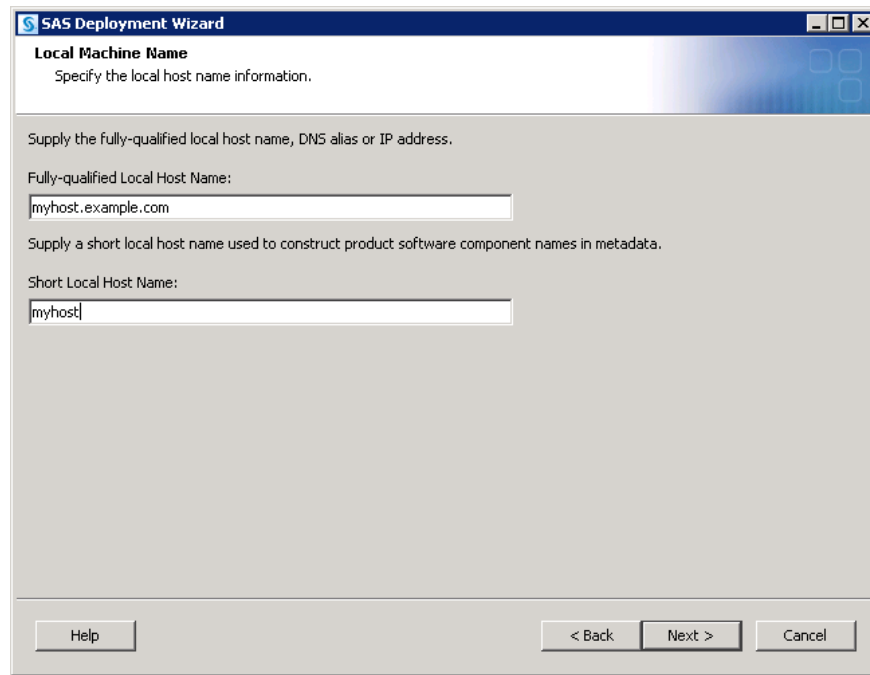
For more information, see “Overview of the Configuration Directory Structure” in the *SAS Intelligence Platform: System Administration Guide*.



- 19 On the Local Machine Name page, enter the complete name of the local host in the **Fully-qualified Local Host Name** box. The fully qualified local host name typically takes the form of the local host name plus the domain name server (for example, myserver.example.com). Enter a short host name in the **Short Local Host Name** box. The short local host name is the abbreviated, more common method of referring to the host, usually only a single word.

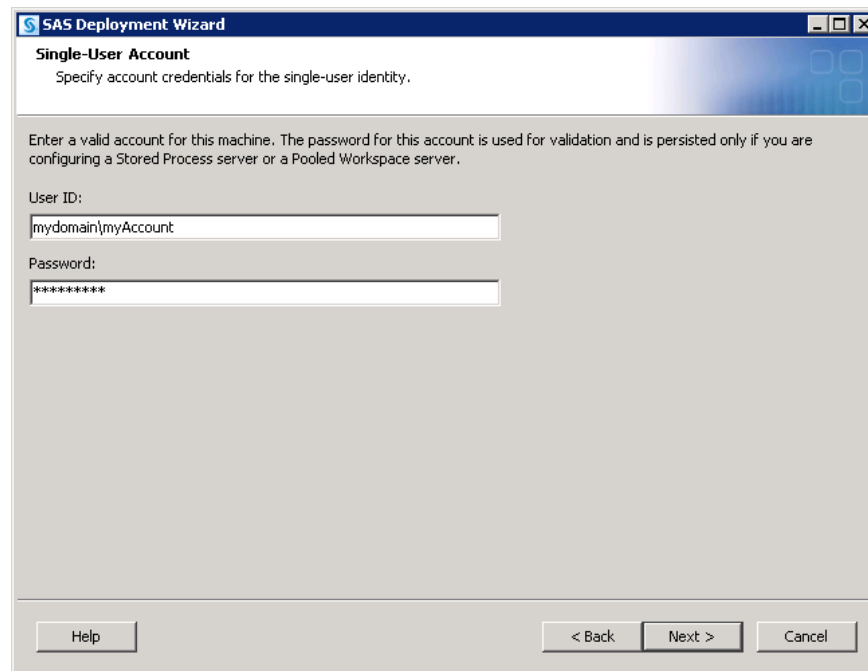
*Note:* If your machine uses different names depending on the state of the network connection, then you should specify the short machine name in both the **Fully-qualified Local Host Name** and **Short Local Host Name** boxes.

This situation is common on laptops with wireless network connections. When the network is enabled, the machine name is fully qualified (for example, mymachine.example.com). When the laptop is running without a network connection, then the laptop machine name is the short local host name (for example, mymachine). SAS uses the value of **Short Local Host Name** for labeling purposes only and it is never used to do anything related to networking. △



The screenshot shows the 'Local Machine Name' page of the SAS Deployment Wizard. The title bar reads 'SAS Deployment Wizard'. The page header is 'Local Machine Name' with the instruction 'Specify the local host name information.' Below this, a text box labeled 'Fully-qualified Local Host Name:' contains the text 'myhost.example.com'. Another text box labeled 'Short Local Host Name:' contains the text 'myhost'. At the bottom, there are three buttons: 'Help', '< Back', and 'Next >', and a 'Cancel' button on the far right.

- 20 On the Single-User Account page, enter a Windows account that is known to the machine and is a member of the Windows Administrators group. (This is the account with which you will log on to the SAS 9.2 analytics clients that you are installing.)



The screenshot shows the 'Single-User Account' page of the SAS Deployment Wizard. The title bar reads 'SAS Deployment Wizard'. The page header is 'Single-User Account' with the instruction 'Specify account credentials for the single-user identity.' Below this, a text box labeled 'User ID:' contains the text 'mydomain\myAccount'. Another text box labeled 'Password:' contains a series of asterisks '\*\*\*\*\*'. At the bottom, there are three buttons: 'Help', '< Back', and 'Next >', and a 'Cancel' button on the far right.

- 21 On the E-mail Server page, enter the port and host name for an SMTP e-mail server that the SAS Metadata Server uses to send e-mail alerts to an administrator if journaling issues arise. The SAS Deployment Wizard also uses this e-mail server as the default for the SAS Application Server to provide e-mail services to various SAS clients.



*Note:* If you do not know the name of your SMTP e-mail server, or do not have such a server, then entering a dummy value enables the installation to continue. However, you will *not* receive e-mail notifications should your metadata server run low on disk space. △

For more information, see “Overview of Adding or Modifying E-Mail Settings for SAS Application Servers” in the *SAS Intelligence Platform: Application Server Administration Guide*.

The screenshot shows the 'E-mail Server' configuration window of the SAS Deployment Wizard. The window title is 'SAS Deployment Wizard' and the subtitle is 'E-mail Server'. Below the subtitle, it says 'Specify E-mail Server information.' A note states: 'An unauthenticated SMTP e-mail server is used to send alert e-mail messages when the Metadata Server encounters problems.' The form contains the following fields and options:

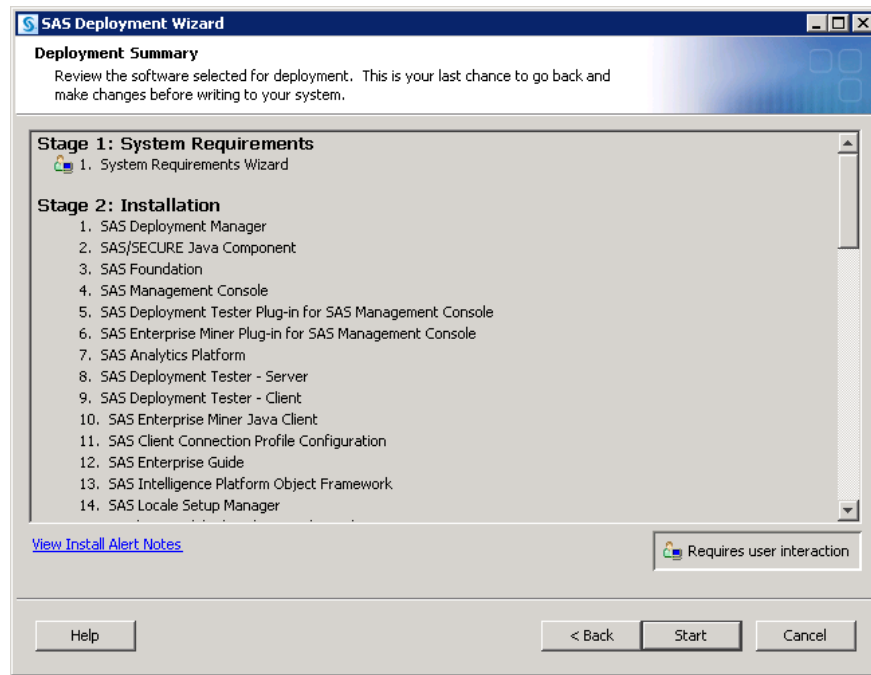
- Host Name:** A text box containing 'mailhost.example.com'.
- Port:** A text box containing '25'.
- Sender E-mail Address:** A text box containing 'myaccount@example.com'.
- Recipient E-mail Address:** A text box containing 'myaccount@example.com'.
- Authentication:** A checkbox labeled 'E-mail Server Requires Authentication' which is currently unchecked. A note above it says: 'Specify whether your E-mail server requires authentication. You will be prompted for E-mail server credentials if you check this field.'

At the bottom of the window, there are three buttons: 'Help', '< Back', and 'Next >', and a 'Cancel' button.

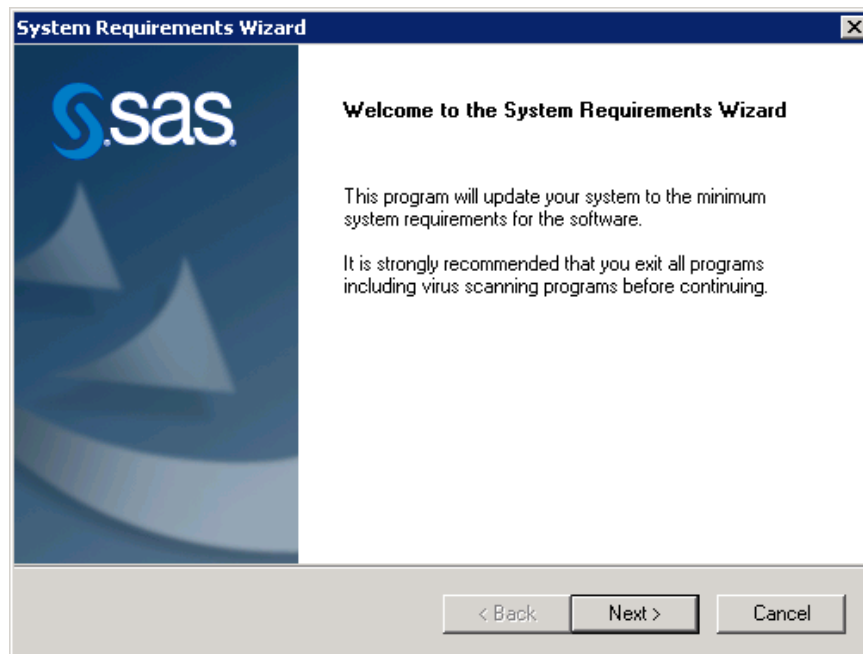
**22** The SAS Deployment Wizard has finished collecting installation and configuration input. This is the last opportunity to go back and change any information you have provided on previous pages before the wizard begins writing to your system.

Make one of the following choices:

- Click **Start** to begin installing SAS files and writing the configuration to the current machine.
- Click **Back** to navigate to earlier wizard pages to change installation and configuration information previously entered.
- Click **Cancel** to terminate the wizard session. Note that you will lose installation and configuration information previously entered.

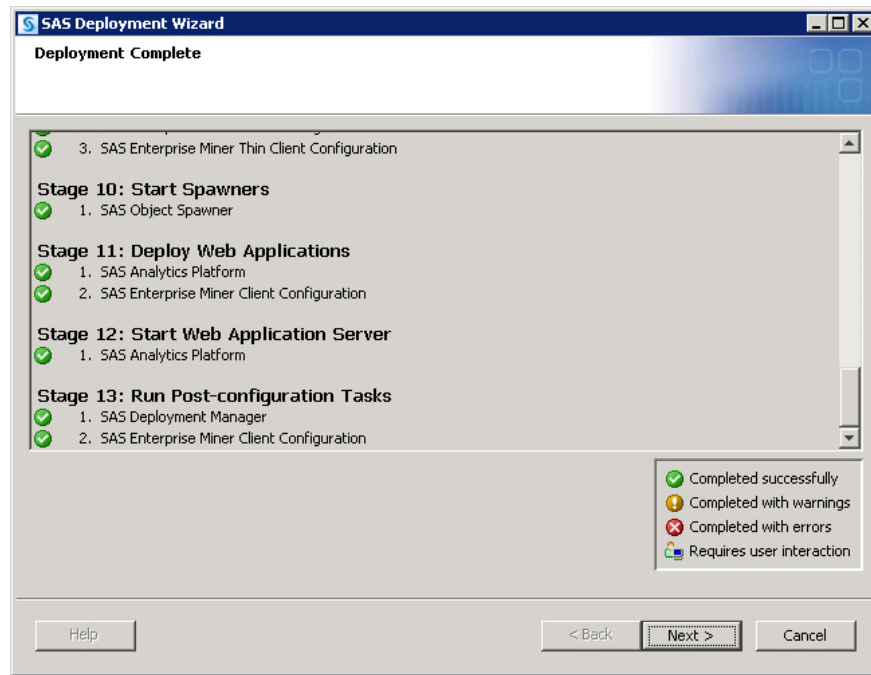


**23** If this is a first-time SAS 9.2 deployment, the System Requirements Wizard runs and requires you to provide input.



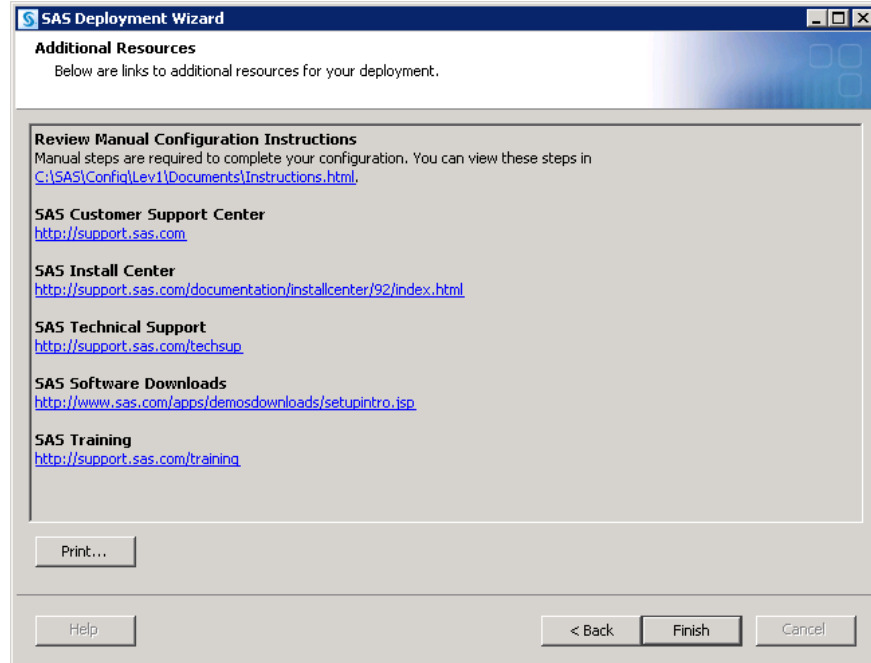
This is the last interactive input required from you, unless a configuration error occurs.

When you see a page similar to the following, the SAS Deployment Wizard is finished:



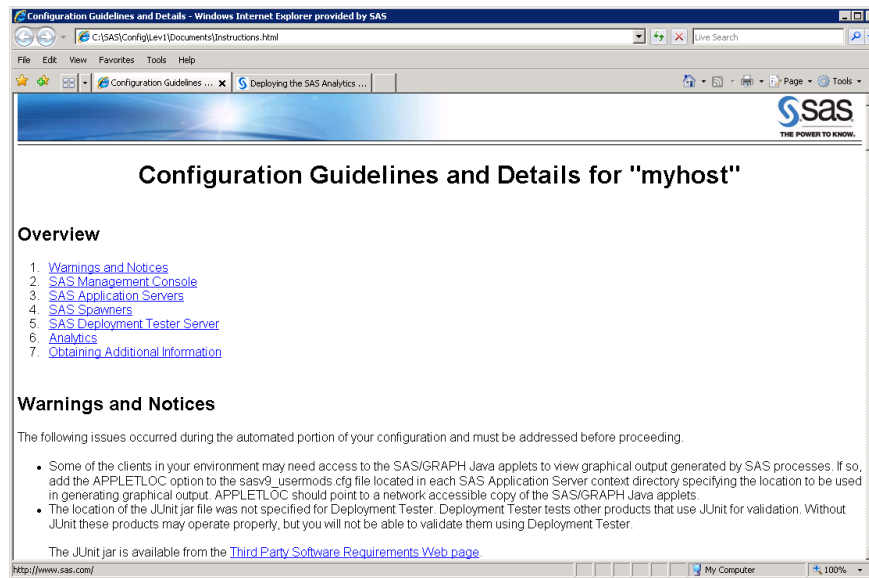
#### 24 Click **Next**.

The Additional Resources page lists several URLs that you can visit to obtain things such as technical support and product training.



#### 25 Click **Finish**.

Your Web browser should appear. If you had any configuration errors, you should see ConfigurationErrors.html. Otherwise, you should see Instructions.html.



- 26 Proceed to the section, “Review SAS Deployment Wizard Documents” on page 22 to examine the SAS Deployment Wizard output to troubleshoot any configuration errors and complete any necessary manual configuration steps.

*Note:* SAS requires that the installer account have the Windows user right **Log on as batch job** assigned. If this right is not assigned, then the SAS Deployment Wizard does it for you. Check Instructions.html to see whether the wizard assigned the **Log on as a batch job** right. If this assignment was made, then you must reboot your machine before using SAS Enterprise Miner. △

- 27 When you are finished, be sure to back up your metadata repository and your SAS configuration directory before you perform any post-deployment wizard configuration.

- Make a backup copy of your SAS 9.2 configuration directories by using your site-approved method. Your SAS configuration directories are all the child directories beneath the path that you specified earlier in this procedure on the Specify Configuration Information wizard page.
- Back up your metadata repository and repository manager. For more information, see “Best Practices for Backing Up and Restoring Your System” in the *SAS Intelligence Platform: System Administration Guide*.

- 28 Be sure to restart any SAS Windows services that you stopped for purposes of creating a backup.

---

## Review SAS Deployment Wizard Documents

During configuration of SAS 9.2, the SAS Deployment Wizard creates documents that can help you identify any remaining configuration tasks and errors. Use the following documents to perform manual configuration steps and to correct any configuration errors:

### Instructions.html

contains a list of manual steps that must be performed to complete your deployment. Instructions.html resides under the SAS configuration directory in the **Levn/Documents** subdirectory (for example, **C:\SAS\Config92\Lev1\Documents**).

**ConfigurationErrors.html**

(only created if configuration errors occurred) contains a list of configuration errors that require further attention. ConfigurationErrors.html resides under the SAS configuration directory in the **Levn/Documents** subdirectory (for example, **C:\SAS\Config92\Lev1\Documents**).

**Configuration logs (as needed)**

provide a more detailed list of errors for each SAS component that the SAS Deployment Wizard migrates and configures. There is one log file for each SAS component. The configuration logs reside under the SAS configuration directory in the **Levn/Logs/Configure** subdirectory (for example, **C:\SAS\Config92\Lev1\Logs\Configure**).

---

## Validating Your Deployment

---

### Validate Your Servers

There are a few simple steps required to confirm that the various SAS servers you have deployed are running properly.

*Note:* SAS requires that the installer account have the Windows user right **Log on as batch job** assigned. If this right is not assigned, then the SAS Deployment Wizard does it for you. Check Instructions.html to see whether the wizard assigned the **Log on as a batch job** right. If this assignment was made, then you must reboot your machine before validating the workspace server. △

The following table summarizes server validation information:

**Table 2.2** Validation Summary for the SAS Server Tier

Server	Validation Method
Metadata server	Successful login using the SAS Management Console.
Metadata utility (SASMeta) workspace server	Right-click the validate command in SAS Management Console using the account credentials with which you used to deploy SAS Enterprise Miner: Server Manager ► SASMeta ► Logical Workspace Server.
Metadata utility (SASMeta) SAS DATA step batch server	Successful launch of SAS when running the sasbatch script. The sasbatch script resides here: <i>SAS-Configuration-Directory\Levn\SASMeta\BatchServer\sasbatch.bat</i> .
Object spawner	If one of the workspace servers validates (see below), then the object spawner is running.

Server	Validation Method
Workspace server	Right-click the validate command in SAS Management Console using the account credentials with which you used to deploy SAS Enterprise Miner: Server Manager ► SASApp ► Logical Workspace Server.
Analytics platform server	Access the analytics platform server Server Status window. Run a Web browser and point it to <b>http:// fully-qualified-machine-name:6401/AnalyticsPlatform</b> .

## Validate Your Clients

To confirm that the various SAS components you have deployed are running properly, see if you can successfully launch the various SAS clients that you have installed. When logging on to the clients, be sure to use the user credentials that you specified during the installation process. (See the Single-User Account page.) Always use a domain when entering a user ID (for example, mydomain\myAccount).

When logging on to SAS Enterprise Miner, make sure that you select the **Personal Workstation** check box.

SAS Enterprise Miner

**sas**

**SAS® Enterprise Miner™ 6.2**

THE POWER TO KNOW.

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User name:

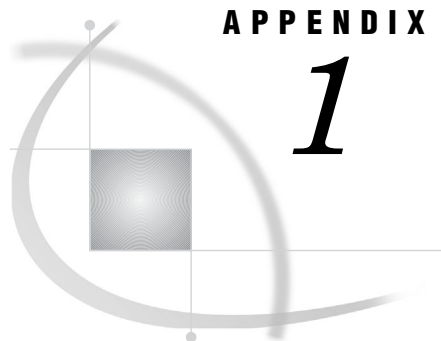
Password:

☐ Remember my password

☐ Personal Workstation

Server:

Log On   Cancel   Help



## APPENDIX

## 1

## Removing Your SAS Enterprise Miner 6.2 Deployment

---

*Overview of Uninstalling Your SAS Enterprise Miner 6.2 Deployment* 25

*Unconfigure Your SAS Enterprise Miner 6.2 Deployment* 25

*Uninstall Your SAS Enterprise Miner 6.2 Deployment* 27

---

### Overview of Uninstalling Your SAS Enterprise Miner 6.2 Deployment

To remove your SAS Enterprise Miner deployment from a machine, you need to perform the following steps:

- 1 Unconfigure SAS Enterprise Miner.
- 2 Uninstall SAS Enterprise Miner.

---

### Unconfigure Your SAS Enterprise Miner 6.2 Deployment

The SAS Deployment Manager enables you to unconfigure some or all of your SAS Enterprise Miner 6.2 deployment.

When troubleshooting your deployment, you might need to unconfigure one or more components. In this situation, after unconfiguring, you would rerun the SAS Deployment Wizard and reconfigure those components. For more information, see “Configure or Deploy New SAS Components” in the *SAS Intelligence Platform: Installation and Configuration Guide*.

*Note:* When you unconfigure SAS Enterprise Miner, SAS Text Miner is also unconfigured. △

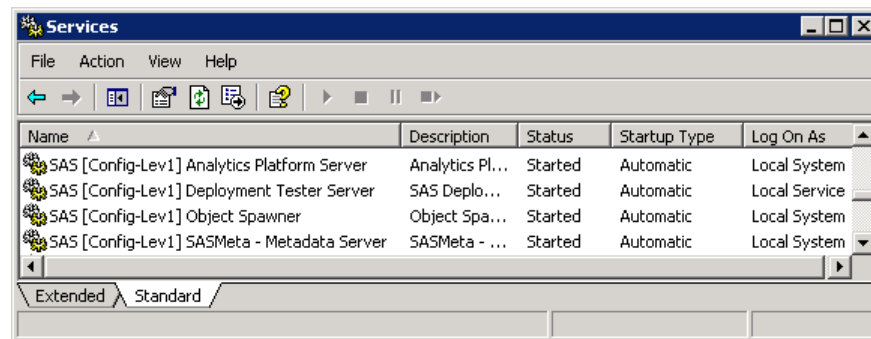
If you want to remove your SAS Enterprise Miner 6.2 deployment, then you first need to unconfigure *all* the SAS components in your deployment, and then uninstall them. For information about uninstalling, see “Uninstall Your SAS Enterprise Miner 6.2 Deployment” on page 27.

To unconfigure some or all of your SAS Enterprise Miner 6.2 deployment, follow these steps:

*Note:* For information about how to remove SAS Enterprise Miner 5.3, see “Uninstalling the SAS Intelligence Platform” in the *SAS 9.1.3 Intelligence Platform Installation Guide* at <http://support.sas.com/913administration>. △

- 1 Log on to the machine with the user credentials that you used to install SAS Enterprise Miner 6.2, or with a user ID that is a member of the Windows Administrators group.
- 2 Run the Windows Services snap-in and stop all SAS 9.2 services *except* for the SAS Metadata Server. (The Services snap-in is accessible from the Windows **Start** menu in the Control Panel. Select **Administrative Tools ► Services**.) Find and stop the following services:
  - SAS [configuration-name-Levn] Analytics Platform Server
  - SAS [configuration-name- Levn] Deployment Tester Server
  - SAS [configuration-name-Levn] Object Spawner

**Figure A1.1** SAS Services Installed Using the Enterprise Miner, One Machine Deployment Plan



- 3 Navigate to *SAS-installation-directory/SASDeploymentManager/9.2* and launch config.exe. (The SAS installation directory is what was specified during installation on the Specify SAS Home page.)
- 4 In the SAS Deployment Manager, select **Remove Existing Configuration**.
- 5 On the next page, specify the configuration directory and the level (for example, **Lev1**) from which the configuration is to be removed.
- 6 On the next page, enter the user ID and password for the unrestricted administrative user. The user ID should be sasadm@saspw, and the password is the same as the one for the account that you used to install and to run SAS Enterprise Miner 6.2.
- 7 On the next page, select the check boxes for the components that you want to remove. For each component that you select, be sure to also include the other components on the machine that depend on that component. For more information, see “Identify Dependent SAS Products” in the *SAS Intelligence Platform: Installation and Configuration Guide*.
- 8 When you have finished selecting the components that you want to unconfigure, click **Start**.

Detailed log messages are written to a file called *component-name\_unconfigure\_date-and-time*, where *component-name* identifies the component that was removed. The deployment manager writes this file to *SAS-configuration-directory\Levn\Logs\Config*.

When the configuration removal is complete, the Deployment Complete page appears.

- 9 Click **Next**.



- 10 On the Additional Resources page, click **Finish**.

A Web browser should launch and display  
*configuration-name-and-level\_ConfigurationRemoval.html*

The document contains details about the components that were removed and additional manual steps that you might need to perform. The document is created in a temporary location. You should save it on your network or your file system so that you can refer to it later.

- 11 If you are deleting *all* of the SAS components, you need to manually remove the SAS Metadata Server repository.

To delete the metadata server repository, delete the following directory and any subdirectories beneath it:

*SAS-configuration-directory\Levn\SASMeta\MetadataServer* (for example:  
**C:\SAS\Config\Lev1\SASMeta\MetadataServer**).

---

## Uninstall Your SAS Enterprise Miner 6.2 Deployment

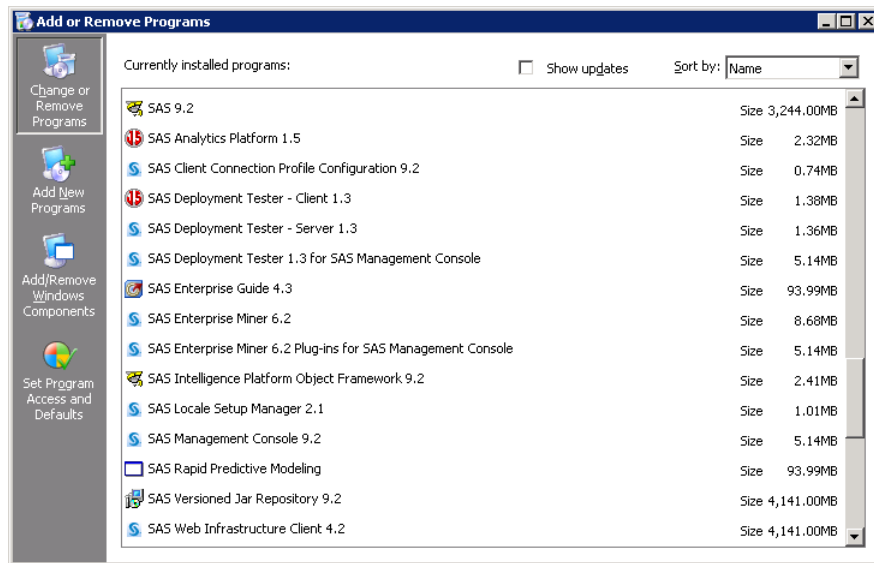
To remove your SAS Enterprise Miner 6.2 deployment, follow these steps:

*Note:* For information about how to remove SAS Enterprise Miner 5.3, see “Uninstalling the SAS Intelligence Platform” in the *SAS 9.1.3 Intelligence Platform Installation Guide* at <http://support.sas.com/913administration>. △

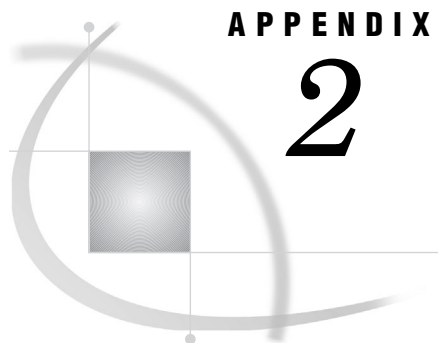
- 1 First, make sure that you have unconfigured all of your SAS Enterprise Miner 6.2 components by following the instructions in “Unconfigure Your SAS Enterprise Miner 6.2 Deployment” on page 25.
- 2 Log on to the machine with the user credentials that you used to install SAS Enterprise Miner 6.2, or with a user ID that is a member of the Windows Administrators group.
- 3 Using the Windows Add or Remove Programs snap-in, remove all applications that begin with the name “SAS”. (Add or Remove Programs is accessible from the Windows **Start** menu in the Control Panel.)

*Note:* You can remove the SAS entries in any order except for the **SAS Versioned Jar Repository 9.2**, which must be removed *last*. △

**Figure A1.2** SAS Programs Installed Using the Enterprise Miner, One Machine Deployment Plan



- 4 Delete the SAS configuration directory. This is the directory specified during installation on the Specify Configuration Information page.
- 5 Delete the SAS installation directory. This is the directory specified during installation on the Specify SAS Home page.



## APPENDIX

## 2

## Default Ports Used By Your Deployment

SAS Default Ports 29

### SAS Default Ports

The following table lists the ports used by SAS 9.2 components in the SAS Enterprise Miner single-user installation:

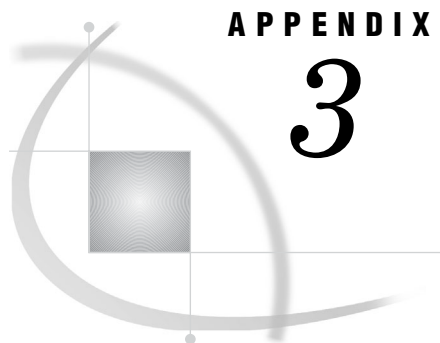
*Note:* The last digit of the default port number reflects the configuration level that you select in the SAS Deployment Wizard. For example, when you select **Lev1**, the default port for the metadata server is 8561. If you choose another level, such as **Lev2**, the wizard changes the default port to 8562. △

**Table A2.1** Default Ports Used by SAS 9.2

Server or Spawner	Default Port
SAS Metadata Server	8561
SAS Analytics Platform server	6401, 6411, and 6421
SAS object spawner: operator port	8581
SAS Workspace Server	8591
Metadata utilities SAS Workspace Server <sup>1</sup>	8591
SAS Deployment Tester server	10021

<sup>1</sup> In SAS 9.2, two or more workspace servers can share the same port even if they are running at the same time.





## APPENDIX

## 3

## Recommended Reading

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*Recommended Reading* 31

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## Recommended Reading

Here is the recommended reading list for this title:

- *Getting Started with SAS Enterprise Miner*
- *Administrator's Guide for SAS Analytics Platform 1.5*
- *SAS Intelligence Platform: Overview*
- *SAS Enterprise Miner: Migration Guide*
- *SAS Intelligence Platform: Installation and Configuration Guide*
- *SAS Intelligence Platform: System Administration Guide*
- *SAS Intelligence Platform: Desktop Application Administration Guide*
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# Glossary

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**authentication**

the process of verifying the identity of a person or process within the guidelines of a specific authorization policy.

**authentication domain**

a SAS internal category that pairs logins with the servers for which they are valid. For example, an Oracle server and the SAS copies of Oracle credentials might all be classified as belonging to an OracleAuth authentication domain.

**connection profile**

a client-side definition of where a metadata server is located. The definition includes a computer name and a port number. In addition, the connection profile can also contain user connection information.

**credentials**

the user ID and password for an account that exists in some authentication provider.

**deploy**

to install an instance of operational SAS software and related components. The deployment process often includes configuration and testing as well. See also migrate.

**deployment plan**

information about what software should be installed and configured on each machine in a SAS deployment. A deployment plan is an XML file that is used as input to the SAS Deployment Wizard. There are two types of deployment plans: standard and custom. A standard deployment plan describes a common configuration. Standard plans are stored by default in the SAS Software Depot. A custom deployment plan is created by a SAS representative specifically for a site.

**domain**

a database of users that has been set up by an administrator by using a specific authentication provider such as LDAP or the host operating system. The domain name should be unique within your enterprise. For example, you should not have a Windows domain and a UNIX domain that are both named "SALES". See also authentication domain.

**Extensible Markup Language**

a markup language that structures information by tagging it for content, meaning, or use. Structured information contains both content (for example, words or numbers)

and an indication of what role the content plays. For example, content in a section heading has a different meaning from content in a database table. Short form: XML.

**Java**

a set of technologies for creating software programs in both stand-alone environments and networked environments, and for running those programs safely. Java is a Sun Microsystems trademark.

**login**

a SAS copy of information about an external account. Each login includes a user ID and belongs to one SAS user or group. Most logins do not include a password.

**metadata identity**

a metadata object that represents an individual user or a group of users in a SAS metadata environment. Each individual and group that accesses secured resources on a SAS Metadata Server should have a unique metadata identity within that server.

**metadata object**

a set of attributes that describe a table, a server, a user, or another resource on a network. The specific attributes that a metadata object includes vary depending on which metadata model is being used.

**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 data set**

a file whose contents are in one of the native SAS file formats. There are two types of SAS data sets: SAS data files and SAS data views. SAS data files contain data values in addition to descriptor information that is associated with the data. SAS data views contain only the descriptor information plus other information that is required for retrieving data values from other SAS data sets or from files that are stored in other software vendors' file formats.

**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 data file**

a control file containing license information that is required in order to install SAS.

**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.

**SAS Software Depot**

a file system that consists of a collection of SAS installation files that represents one or more orders. The depot is organized in a specific format that is meaningful to the SAS Deployment Wizard, which is the tool that is used to install and initially configure SAS. The depot contains the SAS Deployment Wizard executable, one or more deployment plans, a SAS installation data file, order data, and product data.

**SAS Workspace Server**

a SAS IOM server that is launched in order to fulfill client requests for IOM workspaces.

**service**

one or more application components that an authorized user or application can call at any time to provide results that conform to a published specification. For example, network services transmit data or provide conversion of data in a network, database services provide for the storage and retrieval of data in a database, and Web services interact with each other on the World Wide Web. See also SAS Foundation Services.

**SID file**

See SAS installation data file.

**spawner**

See object spawner.

**trusted user**

a privileged service account that can act on behalf of other users on a connection to the metadata server.

**unrestricted user**

a special user of a metadata server who can access all metadata on the server (except for passwords, which an unrestricted user can overwrite but cannot read). An unrestricted user can also perform administrative tasks such as starting, stopping, pausing, and refreshing the metadata server. You are an unrestricted user if your user ID is listed in the adminUsers.txt file and is preceded by an asterisk.

**workspace**

in the IOM object hierarchy for a SAS Workspace Server, an object that represents a single session in SAS.

**XML**

See Extensible Markup Language.



# Index

---

## A

accessibility features 5  
accounts  
    *See* user accounts

## B

backups 22

## C

clients  
    validating 24  
configuration  
    interactive 8  
    logs 23  
configuration directories  
    backing up 22  
ConfigurationErrors.html file 23

## D

default ports 29  
deployment  
    *See also* installation  
    removing 25  
    unconfiguring 25  
    uninstalling 27  
deployment plans 7

## I

installation 3  
    basic steps 3  
    interactive 8  
    preparation 7  
    prerequisites 3  
    products installed 2  
    single-user versus multi-user 1  
Instructions.html file 22  
interactive installation and configuration 8

## L

Log on as batch job right 3, 22  
logs  
    configuration 23

## M

metadata repositories  
    backing up 22

## P

passwords 2  
ports, default 29  
prerequisites for installation 3  
previous versions of software 4

## R

removing a deployment 25  
response files 9

## S

SAS Analytics Platform server 3  
SAS default ports 29  
SAS Deployment Wizard 7  
    options 7  
    reviewing documents 22  
SAS Enterprise Guide 2  
SAS Enterprise Miner 1  
    installation steps 3  
    previous versions 4  
SAS Enterprise Miner for Desktop 2  
SAS ETS Model Editor 3  
SAS installation data file 13  
SAS Installer account 2  
SAS Management Console 3  
SAS Metadata Server 3  
SAS Text Miner 2  
SAS Text Mining for the Classroom 2  
SAS Trusted User account 2  
SAS Unrestricted User account 2  
SAS Workspace Server 3  
servers  
    validating 23

## U

unconfiguring a deployment 25  
uninstalling a deployment 27  
user accounts 2

## **V**

validation  
  clients 24

servers 23

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