Implementing a SAS® 9.3 Enterprise BI Server Deployment in Microsoft Windows Operating Environments
Release Information

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Introduction

This paper explains how to install and configure the SAS® Enterprise BI Server using a standard SAS Enterprise BI Server, one machine, JBoss deployment plan. The process involves these steps:

- Creating a SAS Software Depot
- Preparing your Windows environment
- Installing and configuring your software
- Performing post-deployment validation
- Adding SAS® users to the system

Step 1: Create a SAS Software Depot

The SAS Enterprise BI Server must be installed from a SAS Software Depot, which is a repository for your SAS software media. If you already have a SAS Software Depot, skip to “Step 2: Prepare Your Environment.” If your installation media is in DVD format, create a SAS Software Depot by following these steps:

1. Insert Disk 1 in your DVD drive.
2. If the SAS® Deployment Wizard does not automatically launch, open the DVD in Windows Explorer, right-click setup.exe, and select Run as Administrator.
3. When prompted, select your language and click OK.
4. On the Select Deployment Task page of the SAS Deployment Wizard, select Create or Add to a SAS Software Depot.
5. On the Specify Order Details page, click Next.
6. On the Specify Order Options page, select Include complete order contents and click Next.
7. On the Specify SAS Software Depot Directory page, specify the location where you want to create your SAS Software Depot and click Next. The location can be on the local machine or it can be on a network drive.
8. On the Final Review page, click Start to create the SAS Software Depot.

Step 2: Prepare Your Environment

Before you can deploy your SAS software, you need to prepare your environment. This includes setting up user and group accounts on the machines that are required by your SAS software deployment and installing third-party software that will be used by the SAS deployment.

Setting Up User Accounts

User accounts that are needed for your SAS deployment can be either local accounts on the machine on which you are deploying SAS or domain accounts that have access to the machine. Although you can use your own account names, SAS recommends using the names that are listed in the following table. If you choose to use different account names, be sure to record those names for future reference.
### Table of Accounts

<table>
<thead>
<tr>
<th>Account</th>
<th>Required Operating System Rights</th>
<th>Recommended Account Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAS Installer</td>
<td>Administrator</td>
<td>my-domain\isas or my-machine\isas</td>
</tr>
<tr>
<td>SAS Spawned Servers*</td>
<td>Log on as a batch job</td>
<td>my-domain\isassrv or my-machine\isassrv</td>
</tr>
<tr>
<td>SAS First User*</td>
<td>Log on as a batch job</td>
<td>my-domain\isasdemo or my-machine\isasdemo</td>
</tr>
<tr>
<td>SAS Client Users</td>
<td>Log on as a batch job</td>
<td>my-domain\user-ID or my-machine\user-ID</td>
</tr>
</tbody>
</table>

*The SAS Deployment Wizard automatically assigns the Log on as batch job right to the SAS Spaw ned Servers and SAS First User accounts.*

The accounts that are listed in the preceding table have the following purposes:

1. **SAS Installer** – This account is used to install SAS. After you create the account, log on to the machine with this account to perform the deployment. It is recommended that this account remain available for future SAS maintenance and updates.

2. **SAS Spawned Servers** – This account is the process owner for stored processes and pooled workspace servers on the machine. During the SAS deployment, the SAS Deployment Wizard prompts you to enter the account name and password for this account.

3. **SAS First User** – This account, which is often referred to as *sasdemo*, is used for demonstration purposes. During the SAS deployment, the SAS Deployment Wizard prompts you to specify the account name and password for this account. The SAS First User account is not a required account. It is, however, used for the purposes of this installation guide.

4. **SAS Client Users** – SAS client users are any users that will connect to the SAS server to launch workspace servers via clients such as SAS® Enterprise Guide® or SAS® Add-In for Microsoft Office. These users should be added to the SAS Server Users group, which is discussed in the next section “Setting Up the SAS Server Users Group.”

### Setting Up the SAS Server Users Group

To run SAS under Windows, users must have certain local user rights on the machine that is hosting the server. The Log on as a batch job right is a required privilege so that the user can start a SAS workspace server. One suggestion for giving a user this privilege is to create a group on the server, add SAS users to the group, and then assign that group the Log on as a batch job right.

To create the SAS Server Users group and assign it to the Log on as a batch job right, do the following:
1. For Windows 7 and Windows Server 2008:
   Click Start. In the Search programs and files field, type Computer Management, and select it from the Start menu when it appears.

   For Windows Server 2003:
   Select Start ► Settings ► Control Panel ► Administrative Tools ► Computer Management.

2. Expand Local Users and Groups.


4. Name the group SAS Server Users and click Create.

5. Assign Log on as a batch job rights to the new SAS Server Users group.

   For Windows 7 and Windows Server 2008:
   Click Start. In the Search programs and files field, type Local Security Policy, and select it from the Start menu when it appears.

   For Windows Server 2003:
   Select Start ► Settings ► Control Panel ► Administrative Tools ► Local Security Policy.

6. In the left pane of the Local Security Policy Settings window, expand Local Policies and click User Rights Assignment.

7. In the right-hand pane under the Policy column, double-click Log on as a batch job. This displays the Log on as a batch job Properties dialog box.

8. On the Local Security Setting tab, click Add User or Group to display the dialog box. In the Enter the object names to select field, type SAS Server Users and click Check Names to select the SAS Server Users group. Then click OK to return to the Log on as a batch job Properties dialog box. Verify that the new group that you entered appears in the text box on the Local Security Settings tab.

9. Click OK to close the dialog box and return to the Local Security Policy window.

   In the future, any new SAS users that you add to your SAS system can be granted Log on as a batch job rights by adding them to the SAS Server Users group in Windows. Because the SAS Server Users group was assigned the Log on as a batch job right, it is not necessary to explicitly add users to this right in the Local Security Policy window.

### Installing Third-Party Software

Before you can install SAS Enterprise BI Server, you must first install some third-party software products. Third-party products play an important role in your SAS deployment. For example, because SAS Enterprise BI Server includes web applications such as SAS® Web Report Studio or the SAS® Information Delivery Portal, you need to install third-party products, such as a Java Development Kit (JDK), and a web application server in order to compile and execute these applications.

The following table references the required third-party software and their recommended versions.

<table>
<thead>
<tr>
<th>Third-Party Product</th>
<th>Recommended Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Java Runtime Environment (JRE)</td>
<td>32-bit JRE 1.6.0_24</td>
</tr>
</tbody>
</table>
Java Development Kit (JDK) | 64-bit JDK 1.6.0_30
---|---
JBoss | 4.2.3 or 5.1.0
JUnit | 4.8.1

Java Runtime Environment

During the initial SAS 9.3 deployment, the SAS Deployment Wizard prompts you for the version of the JRE that you want to use with the SAS Java applications. Select one of the following options:

- **Use the recommended JRE** – This option is recommended. If you select this option, the SAS Deployment Wizard automatically installs the recommended JRE.
- **Specify an existing JRE** – If you select this option, browse to an existing 32-bit JRE 6 that you already have installed on your system.

The minimum required version is JRE 1.6.0_24. A 32-bit JRE is required, even on x64 systems. Note that JRE 1.7 is not supported.

Java Development Kit

For the configuration of your web components, a 64-bit JDK is required. The minimum requirement version is JDK 1.6.0_30.

Download the JDK from Oracle ([www.oracle.com/technetwork/java/javasebusiness/downloads/java-archive-downloads-javase6-419409.html#jdk-6u30-oth-JPR](http://www.oracle.com/technetwork/java/javasebusiness/downloads/java-archive-downloads-javase6-419409.html#jdk-6u30-oth-JPR)).

Once you have downloaded the executable, double-click it to install it. During the SAS installation, the SAS Deployment Wizard prompts you to specify the location of the JDK that you installed.

JBoss

SAS Enterprise BI Server requires a web application server so that the SAS web applications can be deployed and run.

Download either JBoss-4.2.3.GA.zip ([sourceforge.net/projects/jboss/files/JBoss/JBoss-4.2.3.GA](http://sourceforge.net/projects/jboss/files/JBoss/JBoss-4.2.3.GA)) or JBoss-5.1.0.GA ([sourceforge.net/projects/jboss/files/JBoss/JBoss-5.0.1.GA](http://sourceforge.net/projects/jboss/files/JBoss/JBoss-5.0.1.GA)). Once you have downloaded the web application server, extract it to the root of your C:\ drive or the location where you want to store your JBoss web application server. During the SAS installation, the SAS Deployment Wizard prompts you to specify the location of JBoss.

JUnit

The JUnit JAR file is required to run the Deployment Tester, which is a tool that can be used to validate your SAS deployment.

During the SAS installation, the SAS Deployment Wizard prompts you to specify the location of the JUnit JAR file.

**Step 3: Install and Configure Your SAS® Software Using the SAS® Deployment Wizard**

Now that you have prepared your environment, you are ready to install and configure SAS using the SAS Deployment Wizard. To begin deploying your software, do the following:

1. Disable your antivirus software. This eliminates any interference that antivirus programs can cause during the deployment.
3. Right-click setup.exe and select *Run as Administrator* to run the SAS Deployment Wizard.

Once the SAS Deployment Wizard initializes, you are prompted to make selections. The following steps document the individual pages of the SAS Deployment Wizard that are displayed during your SAS 9.3 deployment using a SAS Enterprise BI Server, one machine, JBoss standard deployment plan.

**Note:** If you encounter any error messages during the deployment, take note of the error message and the log file that is referenced. These are useful in troubleshooting the failure.

1. **Choose Language**  
   Select your language from the drop-down menu. Click *OK*.
   ![Choose Language](image)

2. **Select Deployment Task**  
   Select *Install SAS software*. Click *Next*.  
   ![Select Deployment Task](image)
3. **Select SAS Software Order**
Select your SAS software order. Click Next.

- **Select Deployment Task**
  - Select the deployment task you would like to perform.
- **End User Tasks**
  - **Install SAS software**
    - Choose this option to install SAS software on this machine.
- **Administrator Tasks**
  - **Manage this SAS Software Depot**
    - Choose this option to manage this SAS Software Depot. You can view and retrieve SAS software orders with this option.
  - **Create or Add to a SAS Software Depot**
    - Choose this option to copy an order from the SAS Software Depot to another new or existing SAS Software Depot.

- **Select a SAS Software Order**
  - Your SAS Software Order number and description will appear here.
- **Additional details for the selected SAS Software Order**
  - View Details...
- **SAS Products to Install**
  - 1. BASE Infrastructure to support Hadoop
  - 2. Base SAS
  - 3. ODS Tools for the Web Server
  - 4. Credit Scoring for SAS Enterprise Miner
  - 5. DataFlux API for Hadoop
  - 6. International Component for Unicode
  - 7. Report Fonts for Clients
  - 8. SAS 3D View Control
4. **Specify SAS Home**
   
   Click **Browse** to select the location where the software will be installed. The default location is `C:\ProgramFiles\SASHOME`. Click **Next**.

5. **Select Deployment Type**
   
   Select **Perform a Planned Deployment** as well as **Install SAS Software** and **Configure SAS Software**. Click **Next**.
6. Specify Deployment Plan
Select **Select a standard deployment plan**. From the drop-down menu, select **EBI Server, one machine, JBoss**. Click **Next**.

### SAS Deployment Wizard

Specify Deployment Plan

Specify a customized or standard deployment plan.

- [ ] Specify the full path to a customized deployment plan
  - C:\SAS Software Depot, JBoss plan, files

- [x] Select a standard deployment plan
  - EBI Server, one machine, JBoss

Details of the selected deployment plan:

- **SingleMachine**
  - Required Software
    - 1. JBoss Application Server
    - 2. Java Development Kit
  - Software to Install
    - 1. SAS Providers for OLE DB
    - 2. SAS Integration Technologies Client
    - 3. SAS/GRAPH ActiveX Control
    - 4. SAS Foundation
    - 5. SAS Intelligence Platform Object Framework

7. Select Deployment Step and Products to Install

From the **Deployment Step** drop-down menu, select **Step 1: SingleMachine**. Click **Next**.

### SAS Deployment Wizard

Select Deployment Step and Products to Install

Select the products you want to install on this machine.

<table>
<thead>
<tr>
<th>Product</th>
<th>Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] SAS Providers for OLE DB</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Integration Technologies Client</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS/GRAPH ActiveX Control</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Foundation</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Intelligence Platform Object Framework</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Management Console</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS BI Integration Plug-in for SAS Management Console</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Deployment Text Plug-in for SAS Management Console</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS EBI Map Manager Plugin for SAS Management Console</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS OLEAF Server Monitor for SAS Management Console</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Configuration Manager</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Framework Data Server</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS Add-In for Microsoft Office Server Data</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS BI Report Services Workplace Configuration</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS BI Unlicense Scheduling Server</td>
<td></td>
</tr>
<tr>
<td>[ ] SAS BI Unlicense Services</td>
<td></td>
</tr>
</tbody>
</table>

Select All  Clear All
8. Select SAS Add-In for Microsoft Office Mode
   If this page is not displayed, skip to Step 9.

   Select **32-bit Compatibility Mode** if you are running 32-bit Microsoft Office. Select **64-bit Native Mode** if you are running 64-bit Microsoft Office. Click **Next**.

9. Specify SAS Installation Data File

   Click **Browse** to select the location of your SAS installation data file. Click **Next**.
10. **Select Language Support**

Select the languages that you might need. If you want only English, click **Clear All** (English remains selected as the default language). Click **Next**.

![Select Language Support Window](image)

11. **Select Regional Settings**

From the **Language (Region) [Locale]** drop-down menu, select the regional language. Click **Next**.

![Select Regional Settings Window](image)
12. **Select Java Runtime Environment**

Select **Use the recommended Java Runtime Environment** and click **Next** to allow the SAS Deployment Wizard to install the JRE. Alternatively, select **Select an existing Java Runtime Environment** and click **Browse** to then select the location for the 32-bit JRE 6 that you pre-installed in the “Java Runtime Environment” section. Click **Next**.

13. **Select Microsoft Office Applications**

If this page is not displayed, skip to Step 14.

Select the Microsoft Office products that you want to activate SAS Add-In for Microsoft Office. Click **Next**.
14. **SAS Environments URL**

If this page is not displayed, skip to Step 15.

In the **SAS Environments URL** field, enter the following path: `http://servername.domain.com:8080/SASLogon/sas-environment.xml`. Substitute your fully qualified host name in place of `servername.domain.com`. Click **Next**.

15. **Specify SAS Document Conversion Host and Port**

If this page is not displayed, skip to Step 16. Do not change the default information that is displayed on this page. Click **Next**.
16. **Checking System**

Wait while the SAS Deployment Wizard checks your system (as shown in the next three displays). When it is finished, click **Next**.
SAS Deployment Wizard
Checking System

Tooling installation complete
440 / 440 (100%)

Examining File System
- 5,351 / 126,574 (4%)

Required disk space: 3,714 MB
Available disk space: 83,649 MB

If any files are shown below, installation cannot proceed because some of the files that need to be added/modified/deleted are either locked or do not have write permissions. Once the installer has finished scanning your filesystem, please quit any SAS applications that might be running and locking files, and add write permissions to those files that are not writable. Once you have done this, click the Refresh button. If you choose not to remediate the problem at this time, simply click the Cancel button to quit.

Unwritable files: 0

SAS Deployment Wizard
Checking System

Tooling installation complete
440 / 440 (100%)

Examining File System
- 126,574 / 126,574 (100%)

Required disk space: 15,351 MB
Available disk space: 83,649 MB

If any files are shown below, installation cannot proceed because some of the files that need to be added/modified/deleted are either locked or do not have write permissions. Once the installer has finished scanning your filesystem, please quit any SAS applications that might be running and locking files, and add write permissions to those files that are not writable. Once you have done this, click the Refresh button. If you choose not to remediate the problem at this time, simply click the Cancel button to quit.

Unwritable files: 0
17. **Review Required Software**

Review the required software that is being installed on your machine. Click **Next**.

---

18. **Specify Software Location**

Click **Browse** to select the path to the JBoss application server that you downloaded to your system. (See the “JBoss” section.) If you used JBoss 4.2.3, you might get a warning that says you are not using the correct version. That is okay; just continue by clicking **Next**.
19. **Specify Software Location**

Click **Browse** to select the location of your JDK. Click **Next**.

![Software Location dialog](image)

20. **Select Configuration Prompting Level**

Select **Typical** and click **Next**.

![Configuration Level dialog](image)
21. **Specify Configuration Information**

Click **Browse** to select the location in which your SAS configuration will reside. The default location is `C:\SAS\EBIServer`. Do not use the same location that was used for SASHOME on the Specify SAS Home page in Step 4. Select **Level** for the **Configuration Level**. Click **Next**.

22. **Local Machine Name**

Enter the **Fully-qualified Local Host Name** and the **Short Local Host Name**. Click **Next**.
23. **Migration Information**

Do not select **Perform Migration.** Click **Next.**

![Migration Information Wizard](image)

24. **Windows Options**

Select **Create Windows Shortcuts.** Click **Next.**

![Windows Options Wizard](image)
25. **Windows Shortcuts**

From the **Create Windows Shortcuts** drop-down menu, select **For All Users**. Click **Next**.

26. **Integrated Windows Authentication**

Do not select **Use Integrated Windows authentication**. Click **Next**.
27. **SAS Metadata Server**

Do not change the default information that is displayed on this page. Click **Next**.

28. **Deployment Accounts: Type of Accounts**

From the **Type of Accounts to Use** drop-down menu, select **Use SAS internal accounts when appropriate**. Click **Next**.
29. **External Account: Installer**

   In the relevant fields, enter the fully qualified user ID and password for the Installer account that will perform the installation (for example, `domain\user-ID` or `machine\user-ID`). Click **Next**.

30. **SAS Internal Account: Unrestricted Administrator**

   Enter and confirm the password that will be used for the internal `sasadm@saspw` account. Click **Next**.
31. **SAS Internal Account: Trusted User**
Enter and confirm the password that will be used for the internal sastrust@saspw account. Click **Next**.

32. **Anonymous Web Access**
Select **Enable Anonymous Web Access (Optional)**. Click **Next**.
33. **SAS Internal Account: Anonymous Web User**

Enter and confirm the password that will be used for the internal webanon@saspw account. Click **Next**.

34. **External Account: SAS Spawned Servers Account**

In the relevant fields, enter the fully qualified user ID (for example, domain\user-ID or machine\user-ID) and password for your SAS Spawned Servers account, which you created previously in the “Setting Up User Accounts” section. Click **Next**.
35. **Deployment Accounts: First User**

Select **Set up a First User Identity (Optional)**. Click **Next**.

36. **External Account: First User**

In the **External User ID** field, enter the password for your SAS First User account (for example, `domain\user-ID` or `machine\user-ID`), which you created previously in the “Setting Up User Accounts” section. Click **Next**.
37. **Server Encryption**

Do not change the default information that is displayed on this page. Click **Next**.

38. **E-mail Server**

Do not change the default information that is displayed on this page. Click **Next**.
39. **E-mail Addresses**

In the relevant fields, enter the sender and recipient e-mail addresses for SAS system-related e-mails. Click **Next**.

40. **SAS Object Spawner**

Do not change the default information that is displayed on this page. Click **Next**.
41. **SAS Object Spawner: Port Bank**

Do not change the default information that is displayed on this page. Click **Next**.

42. **SAS Application Server: Server Context**

Do not change the default information that is displayed on this page. Click **Next**.
43. **SAS Workspace Server**

Do not change the default information that is displayed on this page. Click **Next**.

44. **Metadata Utility Workspace Server**

Do not change the default information that is displayed on this page. Click **Next**.
45. SAS Pooled Workspace Server
Do not change the default information that is displayed on this page. Click Next.

46. SAS Stored Process Server
Do not change the default information that is displayed on this page. Click Next.
47. **Stored Process Server: Multibridge Connections**

Do not change the default information that is displayed on this page. Click **Next**.

48. **SAS OLAP Server**

Do not change the default information that is displayed on this page. Click **Next**.
49. **Metadata Utility SAS/CONNECT Spawner**

Do not change the default information that is displayed on this page. Click **Next**.

![Metadata Utility SAS/CONNECT Spawner](image)

The metadata server requires a SAS/CONNECT spawner for the purpose of metadata replication. A metadata utility SAS/CONNECT spawner will be configured during configuration of the metadata server.

**Port:**
```
7091
```

50. **SAS Framework Data Server**

Do not change the default information that is displayed on this page. Click **Next**.

![SAS Framework Data Server](image)

**Port:**
```
20831
```
51. **SAS Framework Data Server: Transactional Database Files**

Click **Browse** to select the location in which to store the transactional database files. Click **Next**.

52. **Metadata Utility SAS DATA Step Batch Server**

Do not change the default information that is displayed on this page. Click **Next**.
53. **Operating System Services Scheduling Server**

Do not change the default information that is displayed on this page. Click **Next**.

54. **SAS Deployment Tester Server**

Do not change the default **Port** information that is displayed on this page. Click **Browse** to select the location of the junit-4.8.1.jar file that you downloaded previously in the "JUnit" section. Click **Next**.
55. **SAS Remote Services Application**

Do not change the default information that is displayed on this page. Click **Next**.

56. **Event Broker Ports**

Do not change the default information that is displayed on this page. Click **Next**.
57. **Web Application Server: Automatic Configuration**

Do not change the default selection that is displayed on this page. Click **Next**.

58. **Web Application Server: Scripting Configuration**

Do not change the default selection that is displayed on this page. Click **Next**.
59. **Web Application Server: Managed Server**

Do not change the default information that is displayed on this page. Click **Next**.

60. **Web Application Server: Managed Server Ports**

Do not change the default information that is displayed on this page. Click **Next**.
61. **Web Application Server: Automatic Deployment**

Do not change the default selection that is displayed on this page. Click **Next**.

62. **SAS Web Application Themes**

Do not change the default information that is displayed on this page. Click **Next**.
63. **IP Multicast Version**

Do not change the default information that is displayed on this page. Click **Next**.

![IP Multicast Version](image)

64. **IP Multicast**

Do not change the default information that is displayed on this page. Click **Next**.

![IP Multicast](image)
65. **SAS Distributed In-Process Scheduling Server**

Do not change the default information that is displayed on this page. Click **Next**.

---

66. **SAS Web Report Studio: Clustering Support**

Do not change the default selection that is displayed on this page. Click **Next**.
67. **SAS Web Report Studio: Scheduling**

Do not change the default selection that is displayed on this page. Click **Next**.

68. **SAS Web Report Studio: In-Process Scheduling Ports**

Do not change the default information that is displayed on this page. Click **Next**.
69. **SAS Content Server: Repository Directory**
Do not change the default information that is displayed on this page. Click **Next**.

70. **SAS Web Infrastructure Platform: Database Type**
Do not change the default information that is displayed on this page. Click **Next**.
71. **SAS Information Delivery Portal: Samples**

Do not change the default selection that is displayed on this page. Click Next.

72. **SAS Web Infrastructure Database JDBC Properties**

Do not change the default information that is displayed on this page. Click Next.
73. **SAS Flex Application Themes**

Do not change the default information that is displayed on this page. Click **Next**.

- **Host Name:** [Your hostname]
- **Port:** [Port number]
- **Configured Protocol:** [HTTP Protocol]

74. **Deployment Summary**

This page provides the system requirements and the SAS software that will be installed and configured on your system. Click **Start** to begin the installation. The System Requirements Wizard launches interactively. Do not change any of the default selections that are displayed. Click **Next** on each page.
You might be asked to reboot your system. If so, the **Pending Reboot and Automatic Log On** dialog box is displayed. Select **Automatically log back in after reboot** and enter your domain name, user name, and password in the appropriate fields. Click **OK** to reboot your system. The SAS Deployment Wizard should launch when you log back on to the machine. If it does not, simply rerun setup.exe from your SAS Software Depot to resume.

![Pending Reboot and Automatic Log On](image)

**Deployment Complete**

Green check marks next to every item on this page indicate that your deployment completed successfully.
If your deployment was successful, then you are ready to perform the post-deployment steps that are documented in “Step 4: Perform Post-Deployment Validation.”

If you received errors during your deployment, then contact SAS Technical Support atmailto:support@sas.com. Click Next.

76. Additional Resources

Click Finish to close the SAS Deployment Wizard and complete the deployment. The link to your Instructions.html file is located on this page of the wizard under Review Manual Configuration Instructions. This document is used in the next section, “Step 4: Perform Post-Deployment Validation.”

Step 4: Perform Post-Deployment Validation

Once your deployment has completed, there are some post-deployment steps that need to be taken. These steps are documented in your Instructions.html file, which is located in your configuration directory \Lev1\Documents folder.

The Instructions.html file provides the steps for checking that your SAS servers are running and that your web applications were properly deployed.

Step 5: Add SAS® Users to the SAS® System

Now that you have deployed SAS and have successfully validated that your software is working properly, it is now time to add your SAS users to the SAS system. Adding host or domain accounts for SAS users to the SAS metadata gives the user a SAS metadata identity. This enables the SAS users to use the software and access SAS metadata objects.

Perform the following steps to add SAS users to the SAS metadata:

1. Grant the host or domain accounts for each user the required Log on as a Batch Job permission. You can do
this by adding the user accounts to the SAS Servers Group that was created in the section “Setting Up the SAS Server Users Group.”

2. Create a metadata identity for each user.
   a. In SAS® Management Console, select **User Manager**.
   b. Select **Actions ▶ New ▶ User**.
   c. In the **Name** text box, enter the name of the user.
   d. Click the **Accounts** tab, and then click **New**.
   e. In the dialog box that appears, enter the fully qualified user ID (for example, `domain\user-id` or `machine\user-id`). Leave the **Password** field blank and keep the default value **DefaultAuth** for **Authentication Domain** the field. Click **OK**. Then click **OK** again.

Now that you have granted users the required host and SAS system access, the users are ready to begin using the SAS client software.

**Resources**


