Implementing a SAS® Metadata Server Configuration for Use with SAS® 9.2 Enterprise Guide® in Microsoft Windows Operating Environments
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Overview

SAS® 9.2 Enterprise Guide® enables you to perform analytics and to display the results in the client interface. To do this, the SAS Enterprise Guide client must have access to a SAS server. This server can be one of two types:

- a local SAS server
- a server that is administered by a SAS® Metadata Repository

The following sections provide quick-reference steps to help you install a server that is administered by the SAS® Metadata Repository. This type of server uses a SAS® Metadata Server to define and configure supporting servers, users, and libraries.

This document is for users who are experienced with SAS Enterprise Guide and with the procedures explained throughout the following sections.

Step 1: Setting Up Required User and Group Accounts

Note: The information in this section is taken from the pre-installation requirements for SAS®9 that are included as part of the deployment plan. Before you install and configure your software, you must create a set of required user accounts that are used to maintain the server and to perform specialized functions. These accounts, shown in the following table, are normally local to the server, although domain accounts are allowed in Windows environments.

<table>
<thead>
<tr>
<th>Account</th>
<th>Required Rights</th>
<th>Recommended User ID</th>
<th>Actual User ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAS Installer</td>
<td>Administrator rights (user must be a local administrator on the machine, a member of the administration group, or both)</td>
<td>my-domain\installer-ID*</td>
<td></td>
</tr>
<tr>
<td>SAS Spawned Servers</td>
<td>Log on as a batch job security setting, which is automatically assigned by the SAS® Deployment Wizard</td>
<td>my-domain\sassrv</td>
<td></td>
</tr>
<tr>
<td>SAS First User (optional)</td>
<td>Log on as a batch job security setting, which is automatically assigned by the SAS Deployment Wizard</td>
<td>my-domain\sasdemo</td>
<td></td>
</tr>
</tbody>
</table>

* This user ID should be available long term for use with future SAS maintenance releases.

Note: The last column of this table is blank so that you can write your actual user IDs in the table for reference.

If you currently know of additional user, client, or SAS Enterprise Guide accounts that need to access your server through SAS Enterprise Guide, add these accounts at this time. All user accounts should be granted the Log on as a batch job user right, as described in the following steps:

1. Select Start ► Settings ► Control Panel ► Administrative Tools ► Local Security Policy to display the Local Security Settings window.
2. In the left pane of the Local Security Settings window, expand Local Policies and select User Rights Assignment.
3. In the right pane under Policy, double-click Log on as a batch job. This selection displays the Log on as a batch job Properties dialog box.
4. On the Local Security Setting tab, click the Add User or Group button to display the Select Users or Groups dialog box. Enter the appropriate information in the text boxes. Then click OK to return to the Log on as a batch job Properties dialog box.
5. Verify that the new group that you entered appears in the text box on the **Local Security Setting** tab.

6. Click **OK** to close the dialog box and return to the Local Security Settings window.

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### Step 2: Downloading Software Using the SAS® Download Manager

**To download your software:**

1. Install the SAS® Download Manager from the "Downloads & Hot Fixes" page on the SAS Customer Support site.

2. Invok the SAS Download Manager.

   **Note:** For reference, from this point on for this section as well as sections "Step 3: Installing Software Using the SAS® Deployment Wizard" and "Step 6: Installing SAS® Enterprise Guide® on Client Machines," the respective SAS Download Manager page name is in bold and precedes the step for which the page occurs. Also, unless specified to do otherwise, you should assume that you click **Next** after each step.

3. **Order Information page:** Enter the order number and the installation key that are contained in your original Software Order E-mail. Do not use information from a renewal order (license update) e-mail.

4. **Specify Order Details page:** Specify the order details (order number, description, and any notes).

5. **Specify SAS Software Depot Directory page:** Specify the directory in which your SAS Software Depot resides.

6. **Final Review page:** Confirm that the information you entered in the previous steps is correct on the Final Review page. If any of the information is not correct, use the **Back** button to make the changes. Then, when you return to the Final Review page, click **Download** to download your requested software to the SAS Software Depot.

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### Step 3: Installing Software Using the SAS® Deployment Wizard

**To install your software using the SAS Deployment Wizard:**

1. Log on to your machine with the SAS Installer account that you created in "Step 1: Setting Up Required User and Group Accounts." This account must have administrative privileges.

2. Close your antivirus and firewall software. This step is recommended because some antivirus or firewall configurations can prevent an application from installing successfully.

3. Invoke the SAS Deployment Wizard by double-clicking the setup.exe file that is located in the root directory of your SAS Software Depot. The default location is `C:\SAS Software Depot\setup.exe`.

4. **Select Deployment Task page:** Select **Install SAS software** as the deployment task.

5. **Specify SAS Home page:** Accept the default SAS home directory as the installation location, or, if necessary, enter an alternate location.

6. **Select Deployment Type page:** Select **Perform a Planned Deployment** and then select both the **Install SAS Software** and the **Configure SAS Software** check boxes.

7. **Specific Deployment Plan page:** Select the option **Select a standard deployment plan**. In the text box below this selection, click the down arrow and select the plan **Enterprise Guide, two machines**.

8. **Select Products to Install page:** In the **Machine** text box, click the down arrow and select **Server**.

9. **Specify SAS Installation Data File page:** The path to the SAS Installation Data (SID) file for your order is included on this page, by default. If you need to select a different location, click the **Browse** button and navigate to the location for your SID file.
10. **Select Language Support page:** Click the **Clear All** button to limit the languages that SAS supports to English only. Then, if you require additional language support, select the languages that you require.

11. **Select Java Runtime Environment page:** Leave the default option **Use the recommended Java Runtime Environment** selected.

12. **Select Configuration Prompting Level page:** Select the **Express** prompting level.

13. **Specify Configuration Information page:** Accept the default values for **Configuration Directory** and **Configuration Level**.

14. **Migration Information page:** Accept the default migration information (that is, **Perform migration should NOT** be selected, and no path should be specified for **SAS Migration Utility Package Directory**).

15. **Deployment Accounts: Type of Accounts page:** Accept the default value **Use SAS internal accounts when appropriate** for the account type.

16. **External Account: Installer page:** Provide the credentials for the SAS Installer account. This should be the account for which you are currently logged on to the system.

17. **SAS Internal Account: Unrestricted Administrator page:** Provide a password for the SAS Administrator internal account. The combination of this password and the **sasadm@saspw** user name (that appears by default) logs on to SAS® Management Console.

18. **SAS Internal Account: Trusted User page:** Provide a password for the SAS Trusted User internal account. The user name **sastrust@saspq** appears by default.

19. **External Account: SAS Spawned Servers Account page:** Provide the fully qualified name and password for the SAS Spawned Servers account, which you created previously in "**Step 1: Setting Up Required User and Group Accounts.**"

20. **E-mail Server page:** Enter your e-mail server information, if you know it. **Note:** The E-mail Server prompt enables you to receive e-mail messages if your server is failing. If you do not know this information, you can enter "dummy" data as the values. However, if you use "dummy" values, you will not receive notification if the server fails.

21. **Deployment Summary page:** Verify that the installation and configuration information is correct in the **Deployment Summary**. Then click **Start** to begin the deployment.

**Notes:**
- You might be prompted to update system components when the System Requirements Wizard is running.
- You might be prompted to restart your system. The installation resumes after the system is restarted.

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**Step 4: Validating Your System**

After you complete all the steps in the SAS Deployment Wizard, the Instructions.html file ("Configuration Guidelines and Details") opens in your default browser. For future reference, this file is located in the directory **C:\SAS\EG\Lev1\Documents**.

Follow the instructions in the Instructions.html file for validating the following application-server components:

- SASApp -- Stored Process server
- SASApp -- Workspace server

While completing the instructions, the system prompts you for credentials. Use the credentials for the SAS Spawned Server when you are prompted.
Step 5: Adding SAS® Enterprise Guide® Users to the System

SAS Enterprise Guide users must have an operating-system account that enables the metadata server host to authenticate the users. You must create this account for all SAS Enterprise Guide users.

**To add SAS Enterprise Guide users to the system:**

1. Grant user accounts, as necessary, the required privilege **Logon as a batch job**. (See instructions in "Step 1: Setting Up Required User and Group Accounts.")

2. Create a metadata object for each user. Users need a metadata identity so that the metadata server can grant or deny them access to metadata objects. To create the metadata objects, follow these steps:
   a. In SAS Management Console, select the **User Manager** plug-in.
   b. On the menu bar, 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** box blank and keep the default value `DefaultAuth` for **Authentication Domain**.

Step 6: Installing SAS® Enterprise Guide® on Client Machines

**To install SAS Enterprise Guide on client machines:**

1. Log on to your machine with the SAS Installer account that you created in "Step 1: Setting Up Required User and Group Accounts." This account must have administrative privileges.

2. Close your antivirus and firewall software. This step is recommended because some antivirus or firewall configurations can prevent an application from installing successfully.

3. Start the SAS Deployment Wizard by double-clicking the setup.exe file that is found in the root directory of your SAS Software Depot. The default location is `C:\SAS Software Depot\setup.exe`.

4. **Select Deployment Task page:** Select **Install SAS software** as the deployment task.

5. **Specify SAS Home page:** Accept the default SAS home directory as the installation location, or, if necessary, enter an alternate location.

6. **Select Deployment Type page:** Select **Perform a Planned Deployment** and then select both the **Install SAS Software** and the **Configure SAS Software** check boxes.

7. **Specific Deployment Plan page:** Select the option **Select a standard deployment plan**. In the text box below this selection, click the down arrow and select the plan **Enterprise Guide, two machines**.

8. **Select Products to Install page:** In the **Machine** text box, click the down arrow and select **Client**.

9. **Specify SAS Installation Data File page:** The path to the SAS Installation Data (SID) file for your order is included on this page, by default. If you need to select a different location, click the **Browse** button and navigate to the location for your SID file.

10. **Select Language Support page:** Click the **Clear All** button to limit the languages that SAS supports to English only. Then, if you require additional language support, select the languages that you require.

11. **Select Java Runtime Environment page:** Leave the default option **Use the recommended Java Runtime Environment** selected.
12. **Select Configuration Prompting Level page**: Select the **Express** prompting level.

13. **Specify Configuration Information page**: Accept the default values for **Configuration Directory** and **Configuration Level**.

14. **Migration Information page**: Accept the default migration information (that is, **Perform migration** should **NOT** be selected, and no path should be specified for **SAS Migration Utility Package Directory**).

15. **SAS Metadata Server page**: Enter the host name for the SAS server that you configured in "Step 3: Installing Software Using the SAS® Deployment Wizard."

16. **Deployment Summary page**: Verify that the information for the installation and configuration deployment is correct.

**Notes:**
- You might be prompted to update system components when the System Requirements Wizard is running.
- You might be prompted to restart your system. The installation resumes after the system is restarted.

17. When the installation completes, invoke SAS Enterprise Guide. Upon invocation, you are prompted for credentials to the SAS server machine.

   The user ID should be the same one that you added to the metadata in "Step 5: Adding SAS® Enterprise Guide® Users to the System."

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**Resources**

