Administering SAS® Enterprise Guide® 4.1

The Power to Know.

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Administering SAS® Enterprise Guide® 4.1

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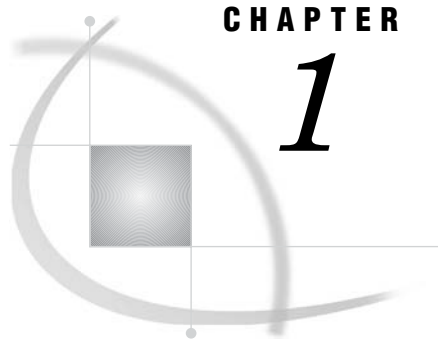
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Introduction to SAS Enterprise Guide Administration

Overview of SAS Enterprise Guide Administration

In order for SAS Enterprise Guide to be able to access the analytical power of SAS, it must have access to SAS data and resources. After you have installed SAS Enterprise Guide at your organization, a large part of the process of administering the application consists of defining the locations of SAS data and resources. These definitions enable SAS Enterprise Guide users to access the data transparently, without having to know anything about the actual location. These definitions are stored as metadata, so you must determine the location and type of the metadata repository, and then make sure that all SAS Enterprise Guide users access the repository. After you have a location to store metadata definitions, you can create definitions for SAS resources such as servers and libraries. Depending on which type of metadata repository you are using, you can also define resources such as users and user groups and can select the tasks that SAS Enterprise Guide users have access to.

Most administration tasks are performed using SAS Enterprise Guide Explorer, which is a component of SAS Enterprise Guide. SAS Enterprise Guide Explorer can also be used by non-administrators to view the metadata definitions. Depending on which type of metadata repository you are using, you might also need to use SAS Management Console in the administration process.

Figure 1.1 on page 2 illustrates how SAS Enterprise Guide uses the metadata definitions that are created by SAS Enterprise Guide Explorer to access SAS resources such as servers and libraries.

Figure 1.1   Creating and Accessing Metadata Definitions
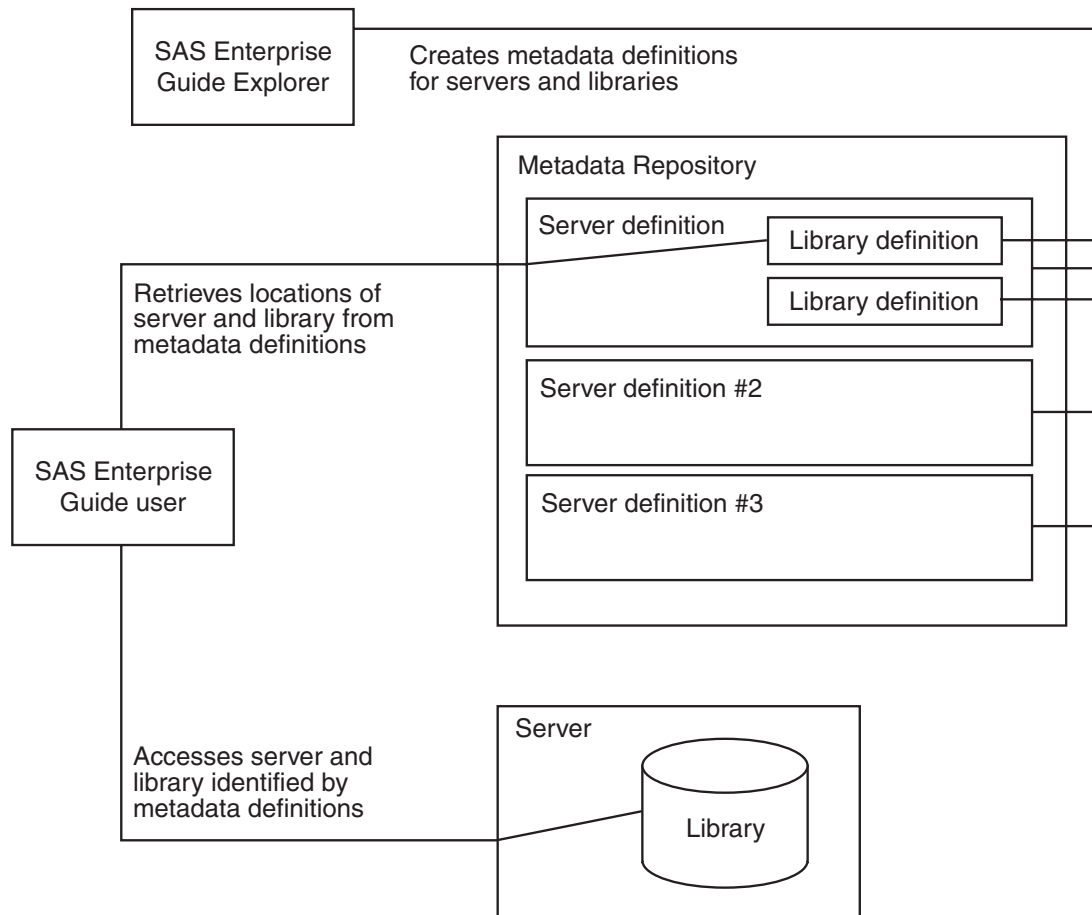
What Is SAS Enterprise Guide?

SAS Enterprise Guide is a thin-client Windows applications that provide a point-and-click desktop interface to the SAS System (Version 8 or later). SAS Enterprise Guide can be used to connect to various server platforms, including UNIX, z/OS, and Windows. SAS Enterprise Guide communicates with the SAS System to access data, perform analysis, and generate results. From SAS Enterprise Guide you can access and analyze many types of data, such as SAS data sets, Excel spreadsheets, and third-party databases. You can either use a set of task dialog boxes or write your own SAS code to perform your analysis. The application helps users to produce results easily, regardless of their SAS knowledge.

SAS Enterprise Guide uses a distributed computing model of networked servers that enable users to access data on multiple platforms quickly and easily.

What Is SAS Enterprise Guide Explorer?

SAS Enterprise Guide Explorer is an application for network and PC administrators that serves as a central resource manager for SAS Enterprise Guide. The resource definitions are stored in a metadata repository, thus enabling all users to access the

same resources. SAS Enterprise Guide and SAS Enterprise Guide Explorer can access metadata definitions in SAS Metadata Repositories as well as SAS Enterprise Guide repositories.

With SAS Enterprise Guide Explorer you can perform the following tasks:

□ manage metadata repository definitions by specifying access information and setting an active repository

□ create metadata definitions for SAS servers and libraries

□ set up virtual folders with shortcuts to multiplatform data (when using a SAS Enterprise Guide repository)

□ set up groups of users to provide high-security access to resources, or bypass groups to provide low-security access (when using a SAS Enterprise Guide repository)

For example, you could add a SAS server that runs on UNIX, specify which users have access to the server, and set up SAS libraries on that server. The specified users could then access the libraries from their SAS Enterprise Guide installation.

SAS Enterprise Guide Explorer operates in either Admin or User mode. Admin mode is available only to users who have had administration features activated, while User mode is available to all users. In Admin mode, users can create and modify metadata definitions and manage repositories. In User mode, users can only view metadata definitions.

About Metadata Repositories

SAS Enterprise Guide and SAS Enterprise Guide Explorer can work with metadata definitions in a SAS Metadata Repository or a SAS Enterprise Guide Repository. Although you can create definitions for multiple repositories of each type, you must choose a single repository as the active repository. The active repository is the source and destination for resource definitions.

The type of metadata repository that you use depends on the needs and requirements of your organization. The following table compares the two types of metadata repositories.

Feature	SAS Metadata Repository	SAS Enterprise Guide Repository
Definition sharing	Metadata definitions shared among all SAS Business Intelligence applications	Metadata definitions used by SAS Enterprise Guide only
Definitions created by SAS Enterprise Guide Explorer	Servers, libraries	Servers, libraries, users, groups, binders
Other administrative applications	SAS Management Console	None

Updates to This Guide

Updates to this guide are available from the SAS Institute Web site at support.sas.com.

Getting Help

To get started with SAS Enterprise Guide Explorer, from the SAS Enterprise Guide Explorer main menu, click **Help ▶ SAS Enterprise Guide Explorer Help**, or click the `Help` button in any SAS Enterprise Guide Explorer dialog box to get help for that dialog box.

For technical assistance, contact SAS Technical Support or visit the Web site at support.sas.com.
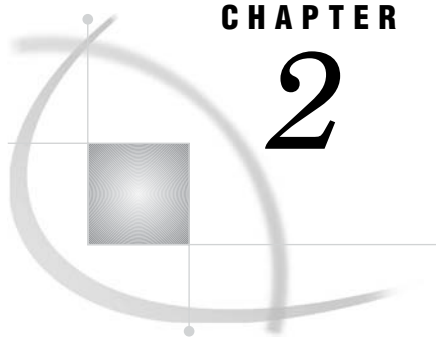
C H A P T E R

2

Installing SAS Enterprise Guide and SAS Servers

Installing SAS Enterprise Guide

Locating Installation Media

System requirements and instructions for installing SAS Enterprise Guide are described in the installation document that is included with the SAS Enterprise Guide application software CD.

The SAS Enterprise Guide software is installed on Microsoft Windows platforms and provides access to SAS services and data that are located on your network. A SAS server can be located on Windows XP, Windows NT, z/OS, or UNIX (AIX 4.2, HP-UX 10.20, or Solaris 2.6) platforms. Specific installation procedures are provided with the SAS Enterprise Guide software.

Using Quiet Mode to Install SAS Enterprise Guide

Understanding Quiet Mode

The quiet install program enables you to create a quiet record file, which contains responses to all of the prompts that are encountered during installation. You can then point to the file when you install SAS Enterprise Guide, which installs the application without requiring any responses from the machine's user. You can use the quiet mode installation together with applications such as Microsoft System Management Server (SMS) to remotely install SAS Enterprise Guide throughout your organization.

Note: The installation process also requires you to run the SAS Enterprise Guide System Requirements Wizard on every machine on which SAS Enterprise Guide will be installed. This wizard verifies that all system software components are at the required level, makes updates as necessary, and performs any required reboots. The System

Requirements Wizard can also be run in quiet mode, which lets you include this step in a remote installation plan.

In addition, you must verify the following conditions on each machine on which you are installing SAS Enterprise Guide:

□ Each machine must have enough free disk space. Refer to the SAS Enterprise Guide installation documentation for specific information about the amount of disk space that is required.

□ Each machine must not have a hardware password enabled. A hardware password prevents the reboots that are required when the System Requirements Wizard runs.

△

Recording an Installation

When you record an installation, you are recording all your dialog box settings in a quiet record file. As you proceed through the dialog boxes, read all of the available online Help before continuing.

To record an installation:

1 Determine the location of the source SAS Enterprise Guide image (that is, the image from which you want to install). Make this location the current directory.

2 Start the install recording wizard by entering the **setup.exe record** command.

3 On the first page of the wizard, select a language for the remainder of the wizard.

4 On the second page of the wizard, specify the location of the quiet record file. The default location is the current path, and the default filename is quiet.ini. If you specify the filename and location of an existing quiet record file, the file will be overwritten with no warning.

5 On the next page of the wizard, edit the information that will be stored in the quiet record file. These values specify responses to prompts that are displayed in a normal install. For example, specifying a value of Yes for AddDesktopShortcut indicates that a desktop shortcut is automatically created for all SAS Enterprise Guide installations.
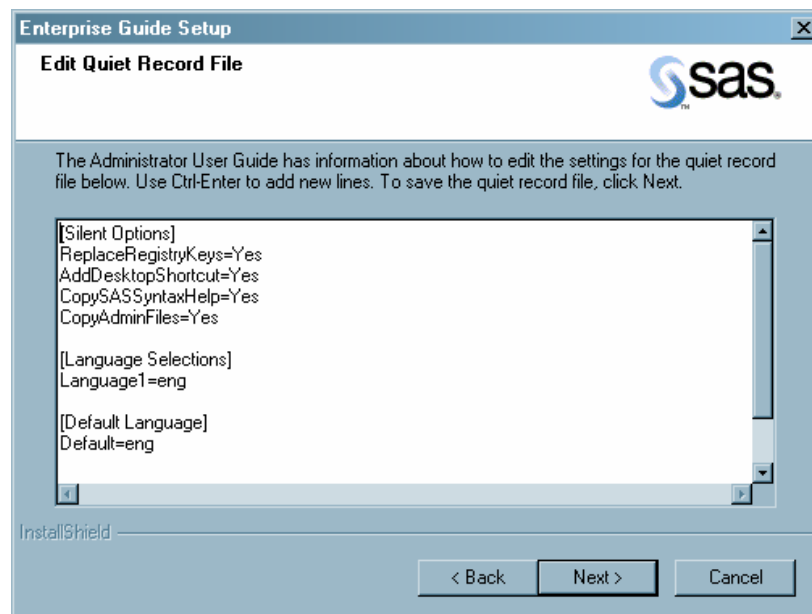
The values that are specified in the quiet record file are as follows:

ReplaceRegistryKeys

> specifies whether the installation process updates all registry entries that SAS Enterprise Guide uses without prompting the user to check for potential conflicts. Specify Yes (the default) to automatically make all registry changes or No to require the user to verify changes.

AddDesktopShortcut

> specifies whether to create a shortcut on the user's desktop for SAS Enterprise Guide. Specify Yes (the default) to create the shortcut or No to not create it.

CopySASSyntaxHelp

> specifies whether the help for SAS syntax elements is installed along with SAS Enterprise Guide. Specify Yes (the default) to install the help or No to omit installation. The SAS syntax help requires approximately 57MB to install, so if you select Yes, you must ensure that all users machines have enough free disk space.

CopyAdminFiles

> specifies whether to allow the ability to use SAS Enterprise Guide Explorer for administration functions. If the administration functions are not installed, SAS Enterprise Guide Explorer can still be used to view resource information. Specify Yes (the default) to install the administration functions or No to omit the installation.

Language1

> specifies which localized versions of SAS Enterprise Guide will be installed. You must specify at least one language (identified as Language1, which is specified as English by default). Additional languages are specified as Language2, Language3, and so forth. The default value is **eng** (English). Other valid values are as follows:

zho	Simplified Chinese
zht	Chinese Traditional
fra	French
deu	German
iwr	Hebrew
hun	Hungarian
ita	Italian
jpn	Japanese
kor	Korean
pol	Polish
rus	Russian
esp	Spanish
sve	Swedish

Default

> specifies the localized version of SAS Enterprise Guide that is used by default whenever the application is started. The language

that you select must be a language that you have specified to be installed. The default value is **eng** (English).

Location

specifies the installation path for SAS Enterprise Guide. If you do not specify a path, a default path of **C:\Program Files\SAS\Enterprise Guide 4** is used. The user is prompted to supply an installation path. This setting does not contain a default value.

6 On the last page of the wizard, select **Finish** to close the wizard and save the quiet record file.

After you have created the quiet record file for SAS Enterprise Guide, create a quiet record file for the System Requirements Wizard. To create this file, follow the steps in the following section.

Performing a Quiet Installation

After you record your quiet record file, you can use it to repeat the same installation without using or seeing the setup dialog boxes. You can also use the quiet record file together with an application such as Microsoft Systems Management Server (SMS) to install SAS Enterprise Guide remotely.

Before you can install SAS Enterprise Guide, you must run the System Requirements Wizard. To run the wizard in quiet mode, follow these steps:

1 Determine the location of the System Requirements Wizard. The wizard is located in the \SRW directory of the location of your SAS install image.

2 Enter this command:

```
LOCATION\SETUP.EXE -s -f2''log_file''
''QuietLog:log_file''
''LogFile:DetailedLogFile''
''AutoID:UserID''
''AutoPwd:Password''
''AutoDomain:Domain''
```

–f2"log_file"

specifies the fully qualified path to the log file that contains the dialog box responses.

QuietLog:log_file

specifies the fully qualified path to the log file that contains the dialog box responses.

LogFile:DetailedLogFile

specifies the fully qualified path to the detailed log of the quiet installation.

AutoID,
AutoPwd,
AutoDomain

specifies the user ID, password, and domain of the user under which the wizard runs. The ID, password, and domain must be valid for each machine on which you run the wizard. If you do not specify these options, the wizard will not finish running until a user manually logs on to the machine. The user ID and password are stored in the Windows Registry of the remote machine between reboots and are removed from the registry after the last reboot.

3 Check the detailed log file for any errors that prevented the System Requirements Wizard from finishing on a machine.

After you have run the System Requirements Wizard on all machines, you can install the SAS Enterprise Guide application. To install SAS Enterprise Guide in quiet mode, follow these steps:

1 Determine the location of the source SAS Enterprise Guide image, and make that the location of the current directory.

2 Determine the name and the location of the quiet record file that you want to use. For this example, the location is **C:\quiet.ini**.

   Note: If you do not provide the pathname and filename for the setup response file, then the setup program tries to use quiet.ini in the directory where setup.exe resides. △

3 Run the setup program by using the **/s quietfile:** command line options to specify quiet mode and the quiet record file that should be used for input. Here is an example command:

   ```
   m:\eg> setup /s quietfile:=''c:\quiet.ini''
   ```

   You can also use the /f2 option to specify the location of an installation log file. Here is an example:

   ```
   m:\eg> setup /s quietfile=''C:\quiet.ini'' /f2''C:\EGInstall.log''
   ```

   You can also use the **silentstatus** option to display an installation status monitor on the user's desktop during installation.

Troubleshooting

If the quiet setup program encounters a problem during playback, then the program terminates. When the program terminates, the status dialog box disappears and all of the changes that were made to your system are reversed. The system is left in its original state.

Installing SAS Servers

This section describes the configuration of a SAS server for use with SAS Enterprise Guide. These instructions complement the normal SAS installation. For system requirements for installing SAS on server hosts, see the installation instructions that are included with the SAS installation CD.

1 Install the required SAS software.

   Using the SAS installation procedures that are included with the software package, install Version 8 or a later version of SAS software on the server host. These products are required when you install SAS software:

   □ Base SAS

   □ SAS Core

   □ SAS Integration Technologies.

2 Install additional SAS products.

   Based on your business needs, install any additional SAS products by using the installation procedures that are provided with the software package. The following is a sample list of products that you can install on the server.

   □ SAS/ACCESS (for accessing database management system data, such as data that is housed in Oracle or DB2)

   □ SAS/ETS

□ SAS/GRAPH

□ SAS/QC

□ SAS/MDDB

□ SAS/STAT.

3 Configure the object server.

After you install SAS, you need to configure a SAS object server so that it can communicate with SAS Enterprise Guide. The configuration procedure that you follow is based on the host environment of the server and on whether you are using a SAS Metadata Repository or a SAS Enterprise Guide repository.
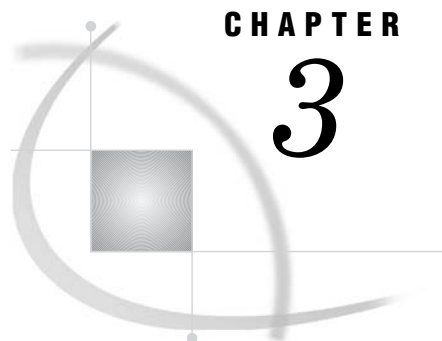
If the server is running on a local Windows machine, you can use a COM connection. If the server is running on a remote Windows machine, you must use an IOM Bridge connection. If the server is running on a z/OS or UNIX platform, you must use an IOM Bridge connection and a SAS spawner to communicate with the server.

If you are using a SAS Metadata Repository, you can define the object server by using SAS Management Console. From the Server Manager, start the New Server wizard, define a SAS Application Server, and select SAS Workspace Server as the server type. See *SAS Management Console: User's Guide* for more information.

If you are using a SAS Enterprise Guide repository, you must define the object server manually. See *SAS Integration Technologies: Server Administrator's Guide* for information on defining a COM or IOM Bridge connection and defining a SAS Spawner.

Troubleshooting the Installation

After you install SAS Enterprise Guide, you must verify that the installation was successful. To verify the installation, start SAS Enterprise Guide. If SAS Enterprise Guide displays an error message that indicates that the application cannot connect to the local repository, then contact either your local SAS representative or SAS Technical Support before continuing. This process will identify any problem machines that are not found by the installation wizard.

3

Setting Up Metadata Repositories

What Is a Metadata Repository?

A metadata repository contains definitions for objects such as servers and libraries that are used by SAS Enterprise Guide and other applications. SAS Enterprise Guide can use metadata from a SAS Metadata Repository or from a SAS Enterprise Guide repository. Metadata definitions in a SAS Metadata Repository can be used by many other applications besides SAS Enterprise Guide, which lets you use a single set of object definitions for all SAS applications in your organization.

If you use a SAS Metadata Repository, you can use SAS Enterprise Guide Explorer to define servers and libraries. Other metadata definitions (such as users and SAS content) are defined by SAS Management Console or other applications such as ETL Studio.

If you use a SAS Enterprise Guide repository, you can use SAS Enterprise Guide Explorer to define servers, libraries, users, groups, and binders.

Setting up metadata repositories is an essential part of SAS Enterprise Guide administration because SAS Enterprise Guide needs to access at least one repository, whether the repository is stored locally or on a networked Windows server. You can use SAS Enterprise Guide Explorer to identify which type of repository will be used to store object definitions.

You can use SAS Enterprise Guide Explorer to create definitions for multiple repositories of each of the supported types, and then select one repository as the active repository. SAS Enterprise Guide then uses the active repository as the source for

object definitions. You can change which repository is designated as the active repository, but you cannot share object definitions between repositories.

Figure 3.1 is an example of a multi-repository configuration used with SAS Enterprise Guide, with a SAS Metadata Repository selected as the active repository. This specifies that SAS Enterprise Guide uses the selected SAS Metadata Repository for object definitions.

Figure 3.1 Repository Configuration, Active SAS Metadata Repository
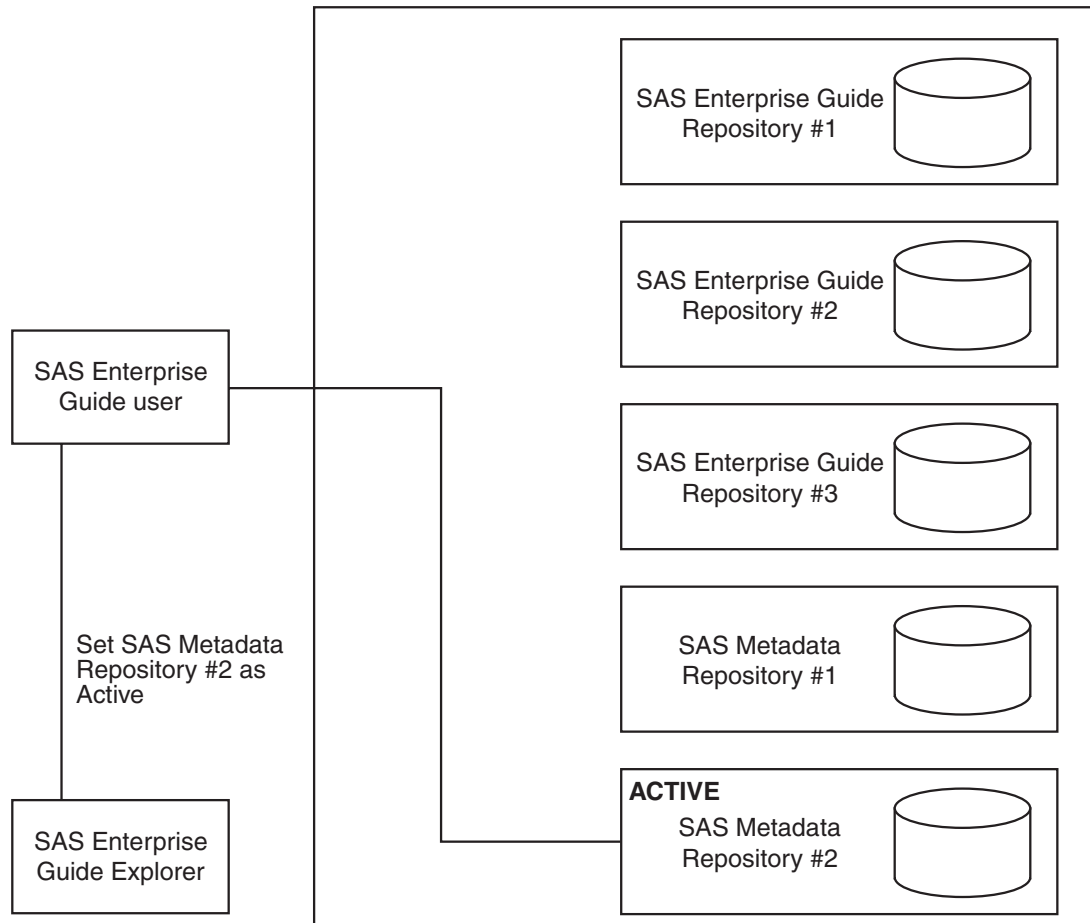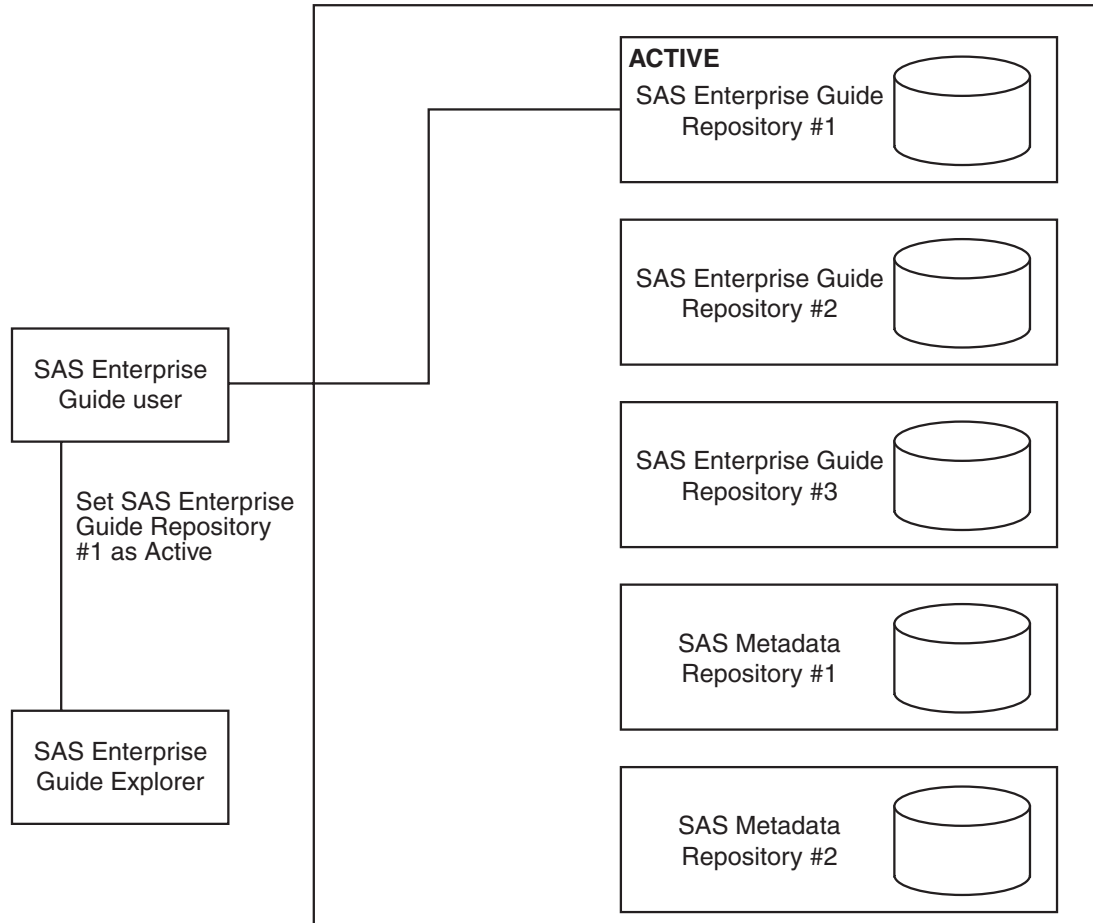

Figure 3.2 illustrates the same configuration with a SAS Enterprise Guide repository selected as the active repository.

Figure 3.2 Repository Configuration , Active SAS Enterprise Guide Repository

After you set up the repository configuration, you can use the automatic update feature to make changes to the configuration and have the changes automatically applied to all machines where SAS Enterprise Guide is installed. You first use SAS Enterprise Guide Explorer to make changes to the configuration, including defining all repositories and designating the active repository. The new configuration information is then saved to a file in a network location. When an SAS Enterprise Guide user starts the application, the configuration file is automatically read and the repository changes are applied.

Figure 3.3 shows how the changes to the repository configuration are applied to SAS Enterprise Guide through the configuration file.

Figure 3.3   Repository Changes Applied through Configuration File
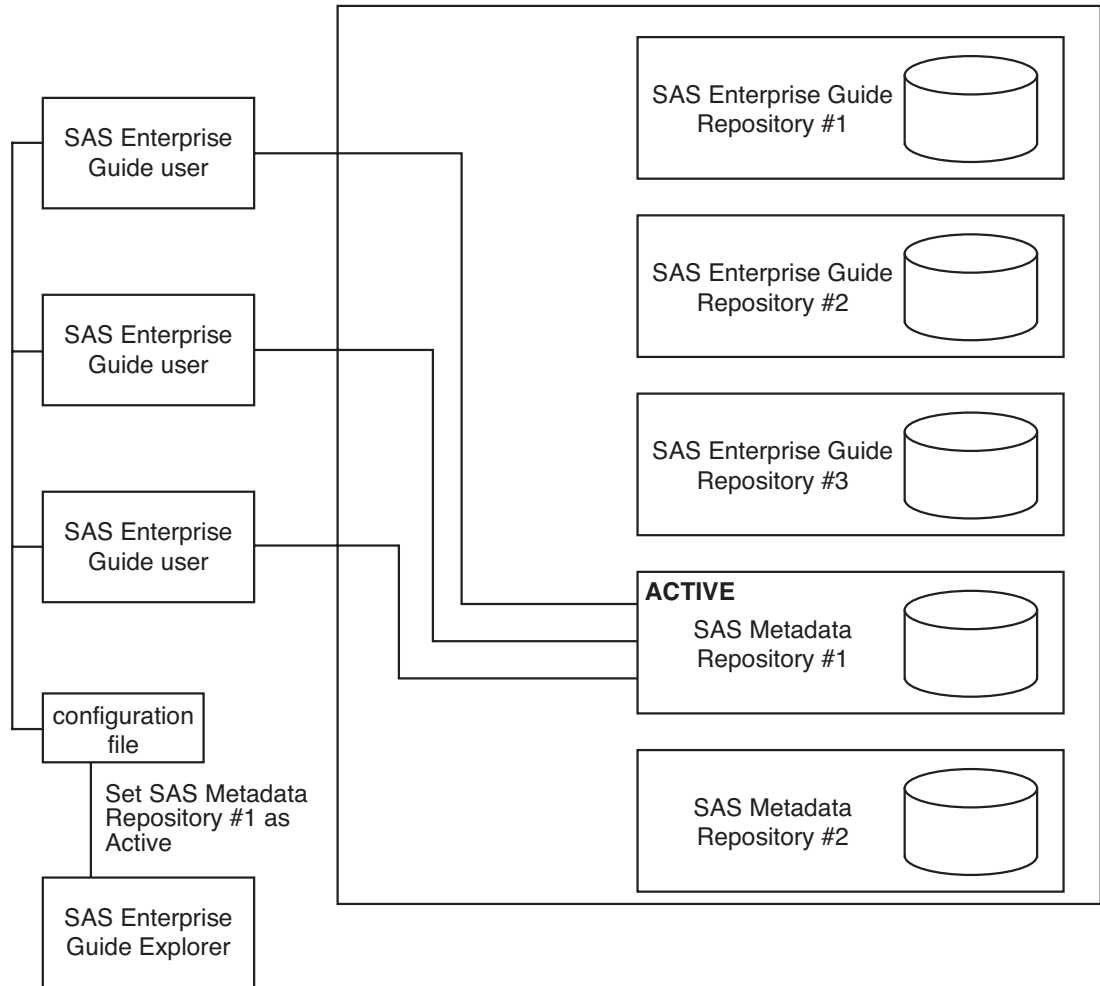
Setting Up SAS Metadata Repositories

SAS Metadata Repositories are metadata repositories on SAS Metadata Servers. The metadata definitions on these servers are used not only by SAS Enterprise Guide but by other SAS applications as well. Using SAS Metadata repositories lets SAS Enterprise Guide users access and share libraries and servers with other applications.

A SAS Metadata Server is installed by the SAS Configuration Wizard during the process of installing and configuring SAS software. Use SAS Management Console to create repositories on the metadata server that will contain the SAS Enterprise Guide object definitions. See "Creating a Metadata Profile" and "Creating a Metadata Repository" in *SAS Management Console: User's Guide* for information about creating metadata repositories on a SAS Metadata Server.

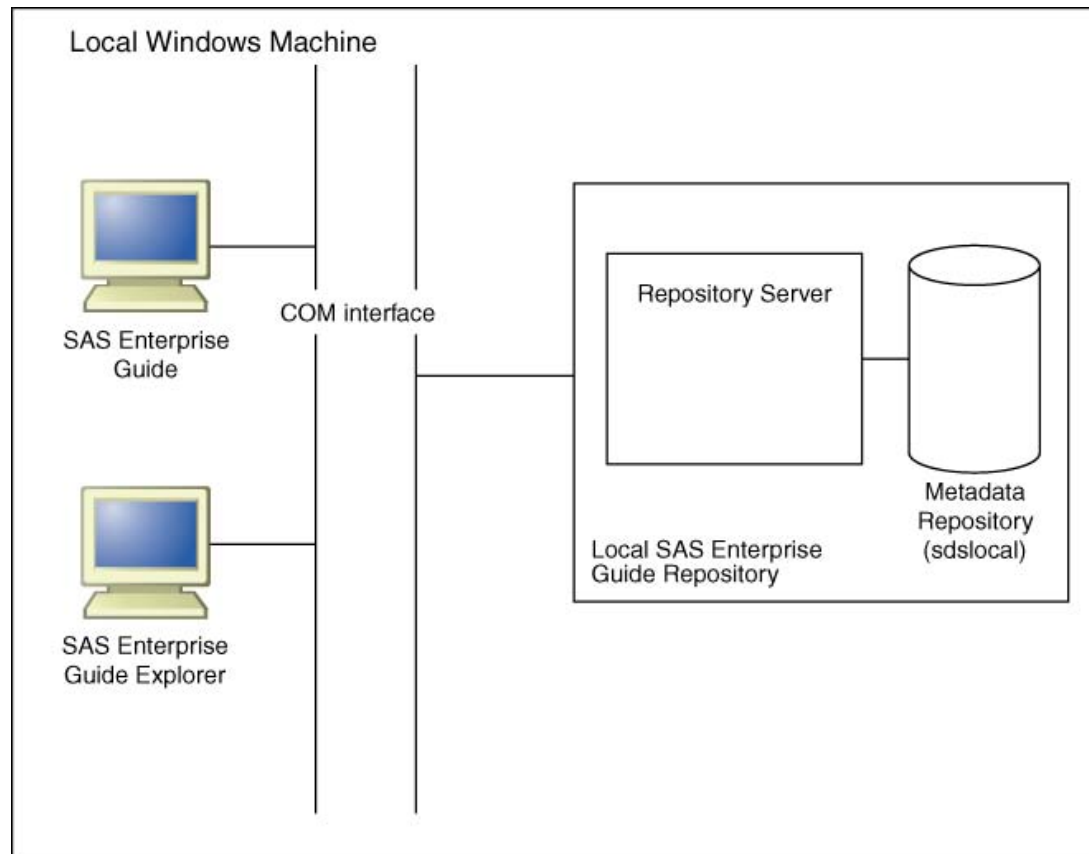# Setting Up SAS Enterprise Guide Metadata Repositories

About the Repository Process

Each SAS Enterprise Guide metadata repository is accessed through a metadata repository process so that multiple SAS Enterprise Guide users can access the same metadata repository if necessary. The repository process is located with a metadata repository either on your local machine or on a networked Windows server.

The repository process is a multiple-user process (called sasdsdb.exe). Only one repository process will run on each machine, and that one process will service all of the repository users on that machine. The repository process starts on demand from the first SAS Enterprise Guide application (SAS Enterprise Guide or SAS Enterprise Guide Explorer) that tries to access the repository. It ends when the last such application ends.

Running the Repository Process Locally

At installation, SAS Enterprise Guide Explorer, along with a repository process for SAS Enterprise Guide repositories, is installed on your local machine with the SAS Enterprise Guide application. Local is a location that depends on the vantage point of the application. You can run the SAS Enterprise Guide repository process locally on a server or on a desktop PC, and either machine can be configured for access from other Windows machines. Figure 3.3 illustrates the relationship between SAS Enterprise Guide and a local repository process.

Figure 3.4 SAS Enterprise Guide Repository Process on a Local Machine

A default metadata repository is created in this location:

```
C:\Program Files\SAS\Shared Files\SAS Directory Services\SdsLocal
```

where `C:\` is the drive on which SAS Enterprise Guide is installed on your machine. The default objects that are defined in the default SAS Enterprise Guide repository indicate that you are running both SAS and SAS Enterprise Guide locally. It reflects the simplest installation of SAS Enterprise Guide.

The objects that are defined in the SdsLocal file are

Server	Local
User	[Unknown User]
Group	General
Binders	Sample

The default object definitions indicate that all users are [Unknown User], belong to the General group, and have access to both the Local server and the Sample binder. You can change the default settings for each object in SAS Enterprise Guide Explorer, and you can enter new object definitions.

Running the Repository Process on a Remote Server

You can set up the SAS Enterprise Guide repository process to run on a server that is remote from SAS Enterprise Guide. On a server you can choose to install only the SAS

Enterprise Guide repository process, also referred to as SAS Directory Services (SDS), without installing SAS Enterprise Guide.

To install SDS on the remote server machine, run the SAS Enterprise Guide installer and select **Install Repository Only** from the main installation window.

The SAS Directory Services Setup wizard starts. Follow the prompts in the wizard to install SDS on the remote machine.

Figure 3.5 illustrates the relationship between SAS Enterprise Guide and a remote repository process.

Figure 3.5   SAS Enterprise Guide Repository Process on a Remote Machine
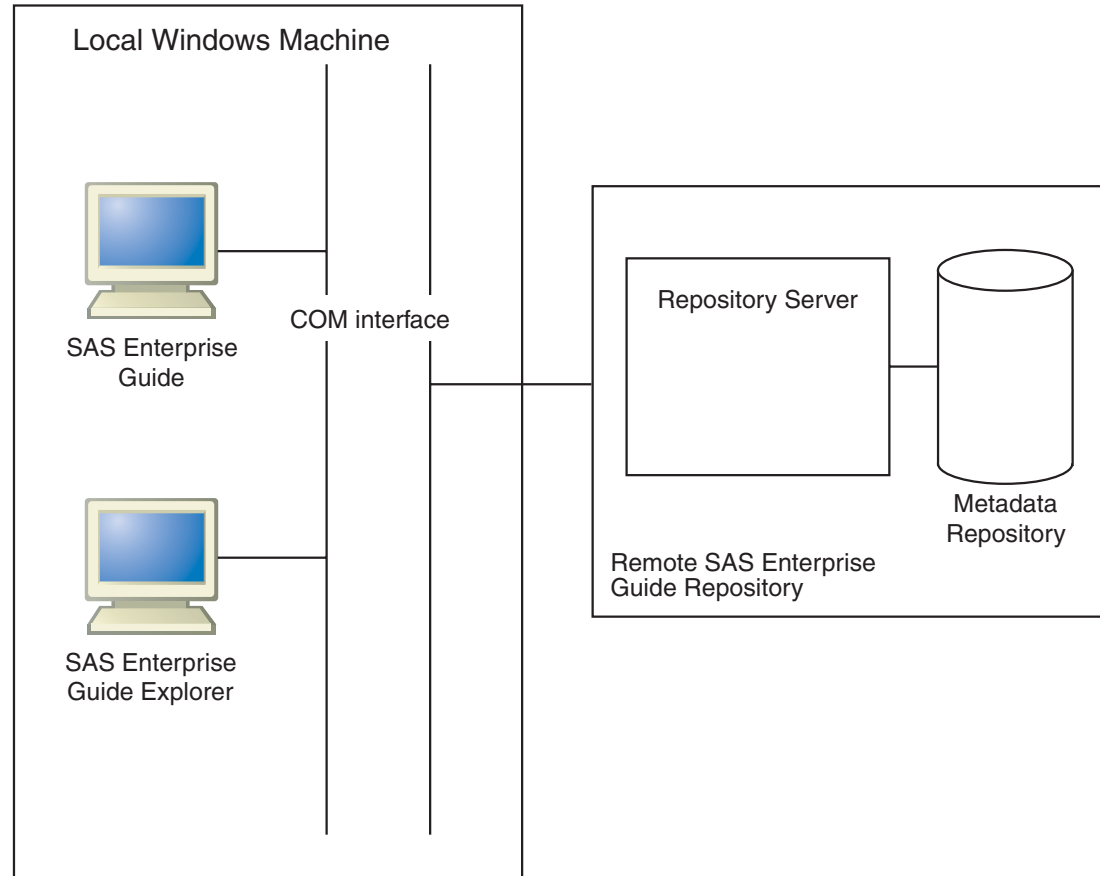
Create Shared Access to the Repository Process

To enable multiple users who are logged on to different machines to share information in one repository, configure the repository process as a Distributed COM (DCOM) server. A repository process can run either on your local machine or on a shared remote machine. Use the Windows dcomcnfg utility on the machine that will be accessed remotely by other machines. If a user's desktop machine does not have a metadata repository that needs to be shared with other users who are logged on to other machines, SAS Enterprise Guide or SAS Enterprise Guide Explorer can access the local repository without having to set up shared access.

When you configure the repository process for DCOM access, the process must be set to run under the authority of a user ID account on the machine or a domain user ID that is allowed to run on the machine. The machine can be a Windows server that is

shared by many users, or it can be any desktop machine capable of running a DCOM server process (such Windows 2000, Windows XP, or Windows 2003 Server).

A current dcomcnfg problem on some Windows machines causes the following problem to occur. If a domain user ID is specified to run the repository server and there is a local machine user ID that has the same name, then the repository process execution will fail. Dcomcnfg correctly sets the domain user ID to be used to run the process, but it incorrectly gives the local user ID rather than the domain user ID the needed user right to "Logon as a batch job." To avoid this problem, do not enter a domain user ID for the repository process identity that is the same user ID as a local machine user ID, because they are unrelated accounts. Or, after you run dcomcnfg, follow these steps:

1 Run the User Manager application. From the Start menu, select **Programs ▶ Administrative Tools ▶ User Manager**

2 From the main menu select **Policies ▶ User Rights**. Check the `Advanced User Rights` check box.

3 Go to `Logon as a batch job` and set the domain user ID (not the local user ID account) to have this right.

Because of this limitation, it is recommended that a new user ID account be added to the machine on which the shared repository process is to run. The account needs to be only a member of the Users group, but it also must have full-control file permission access to the repository database that is installed as part of the SAS Enterprise Guide or SAS Enterprise Guide Explorer setup.

If you want to keep the repository process running at all times, then you can keep a copy of the SAS Enterprise Guide Explorer running while you access the metadata repository. This is especially useful if you use Windows 95 or 98 machines as DCOM servers for the metadata repository process because, on these machines, there is no way to instantiate a DCOM server upon first request.

To configure a DCOM server process for sharing the metadata repository process using Windows XP:

1 From the Windows taskbar on the server machine, select **Start ▶ Run**

2 Type `dcomcnfg`, and then select `OK`.

3 From the tree view in the Component Services window, open the `Component Services` node, the `Computers` node, the `My Computer` node, and the `DCOM Config` node.

   Note: This window appears only if you are using Windows XP. △
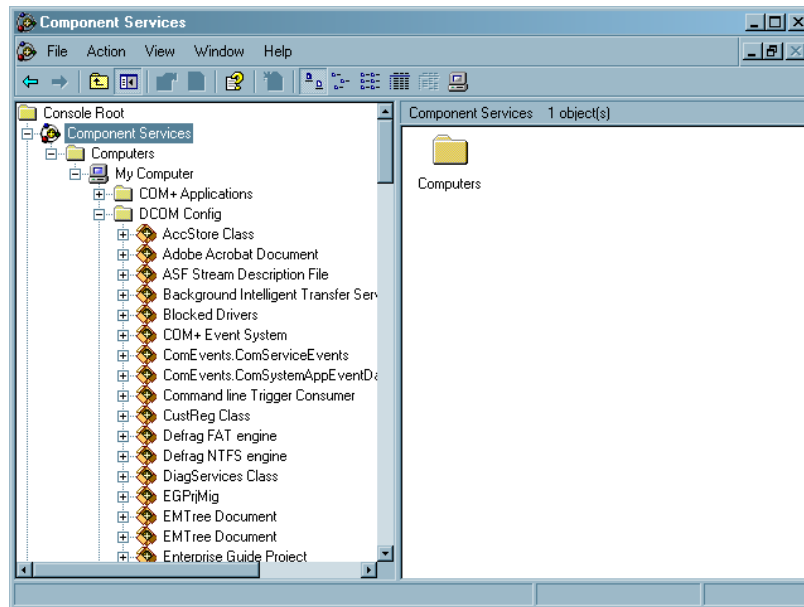
**4** Under the `DCOM Config` node, select the `SAS Directory Services Repository` node, and then select **Actions ▶ Properties**

Note: If you are using Windows NT, select SAS Directory Services Repository from the list of applications in the Distributed COM Configuration Properties window. △

5 Select the `Security` tab. Select the `Customize` option under Launch Permissions, and then click `Edit` to grant custom launch permissions.

Select `Add` in the Launch Permission window, and either add the group called Everyone (you must type in the word `Everyone`) or add the specific groups and/or users to whom you want to grant or deny access. If you add the group Everyone, the `Allow` check box should be selected. Then click `OK`.
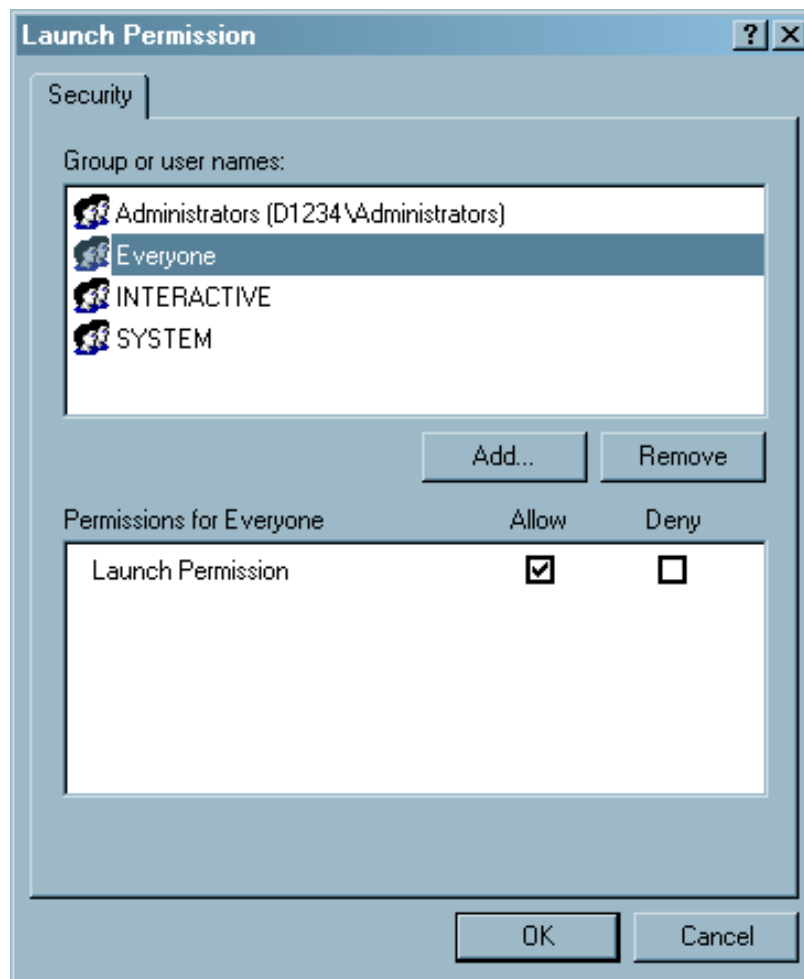
6 Repeat step 4 for Access Permissions. (You can set **Everyone** for access and launch permissions because only users who are defined as administrators in the SAS Enterprise Guide Explorer software will be allowed to make changes to the repository. If you choose, however, you can restrict certain users and/or groups.)

7 From the SAS Directory Services Repository Properties window, select the **Identity** tab. Enter a user ID (and domain) to be used to run the repository process, and then click **OK**.

Note: Due to a current DCOM limitation, this user ID should not be the same as the user ID for the interactive user who might run SAS Enterprise Guide on this server. △
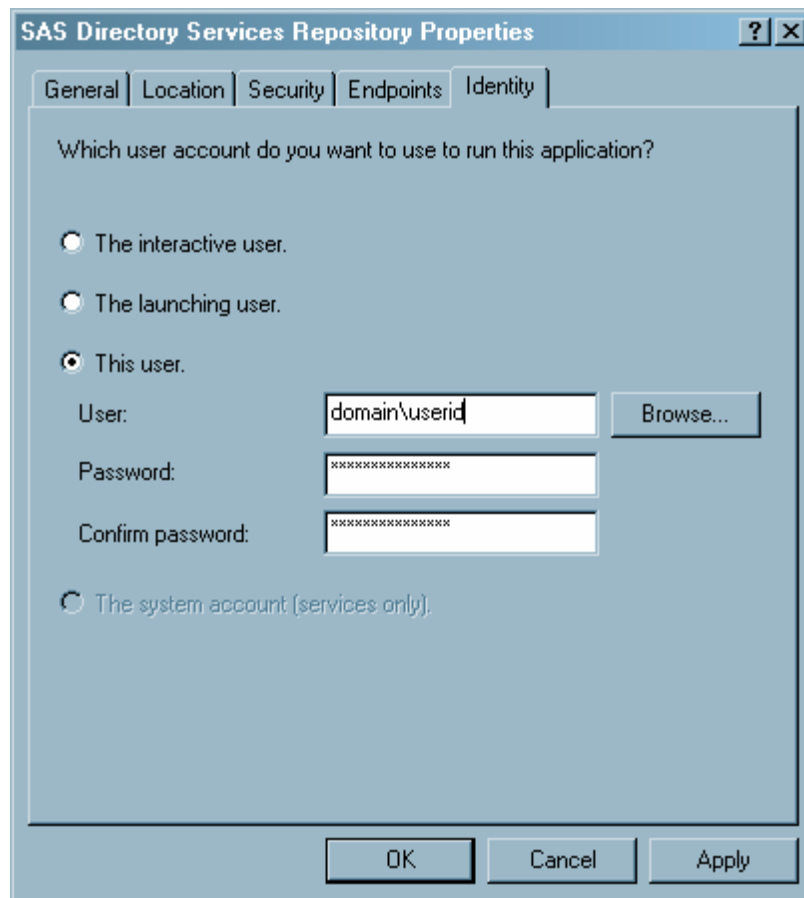
8 At least the user from the previous step must have full control of the repository
database that was installed previously (Sdslocal or another name specified by the
administrator). If the Everyone group is shown, it can be removed because no
other users need to have access to this file. To ensure full control in the file
system, select the repository file (such as Sdslocal) in the My Computer directory.
Click the right mouse button to access the shortcut menu. Select **Properties**.
Click the **Security** tab, and then click **Add**. Either add a group that the user ID
(used to run the repository DCOM server) belongs to, or add the actual user ID,
then click **OK**. In the **Permissions** list, select **Allow** for the **Full Control**
permission, and then click **OK**.
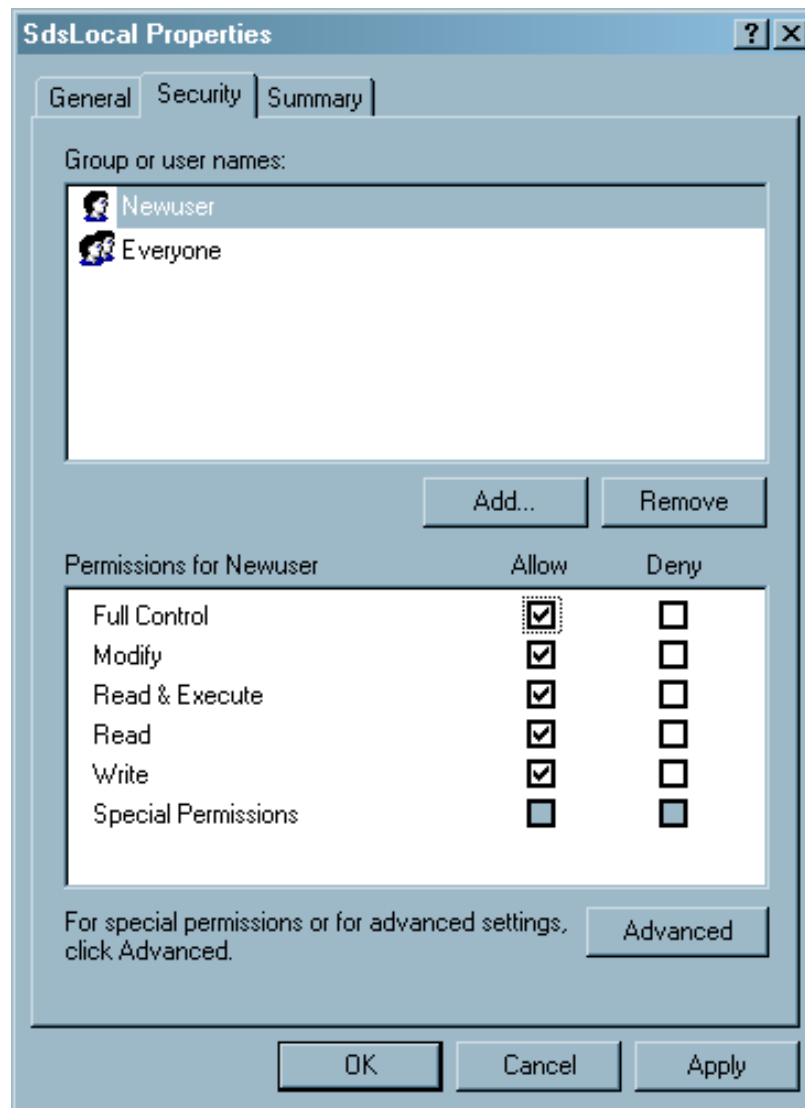
To control access on a FAT drive, do not make the repository database file available for read/write access in a shared directory on a network.

9   Restart the machine so that all of the settings take effect.

10 Finally, if DCOM is not enabled on the server machine, then enable it now by selecting **Start ▶ Run ▶ dcomcnfg**. Open the `Component Services` and `Computers` nodes, and then select the `My Computer` node. Select **Actions ▶ Properties** to open the My Computer Properties window. Select the `Default Properties` tab. Select `Enable Distributed COM on this computer`. Click`OK` to close the window
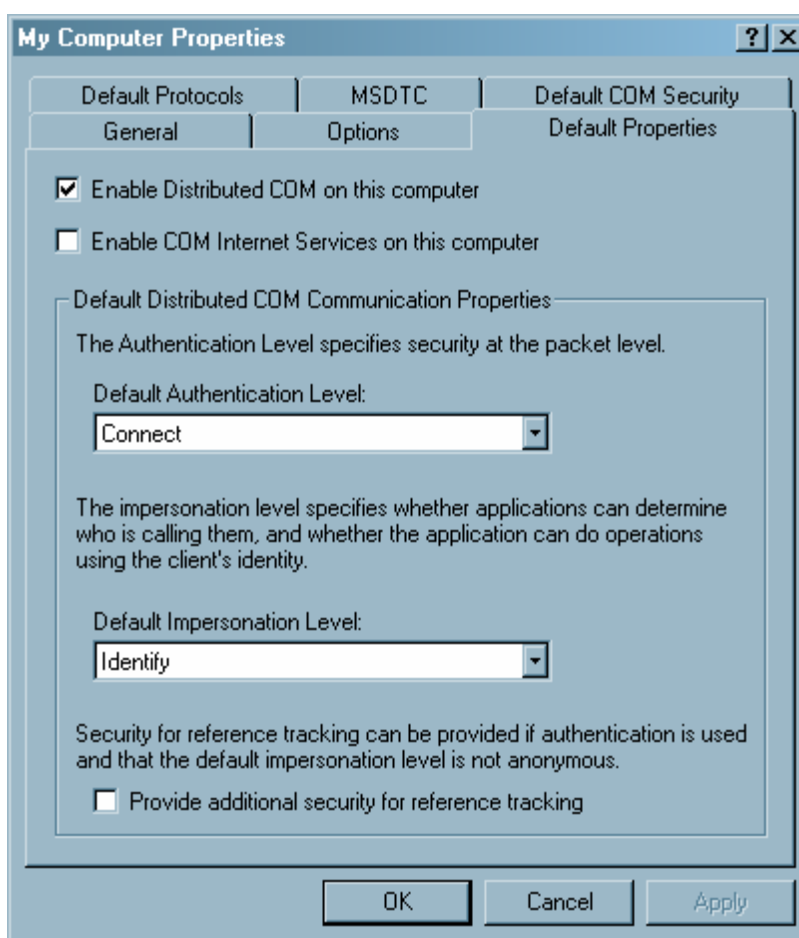
Working with SAS Enterprise Guide Repositories

Before you add object definitions in the repository, add yourself as a user with administrator privileges and set a password.

To work with a repository for the first time:

1 Start SAS Enterprise Guide Explorer.

2 Add yourself as a user with administrator privileges.

3 Add security by setting a password for the active repository. (Security is optional for local repositories.) After you set a password, only users with administrator privileges can make changes to the repository. A user can gain administrator privileges temporarily by using the password. (This is also a way to add an administrator if none exists.) From the pull-down menu, select **Mode ▶ Change Password**

If a password has not been specified, these fields are blank. Type the password and verify it.

4 "Populate" the repository; that is, add servers, libraries, users, and other object definitions. You can add the objects in the order in which they appear in this document or in the order that works best for your situation.
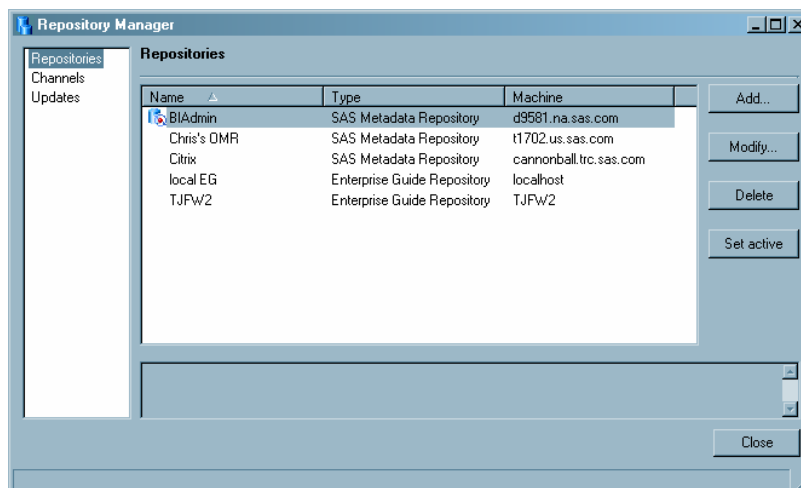
Managing Repositories

About Repository Management

After you create the SAS Open Metadata repositories and SAS Enterprise Guide repositories, you must create and manage definitions for the repositories so that SAS Enterprise Guide can access them. Managing repositories includes these tasks:

□ creating new repository definitions

□ specifying an active repository

□ modifying existing repository definitions

□ setting up automatic updating of repository information

To configure and manage repositories, select **File ▶ Manage Repositories.** The Repository Manager window opens.
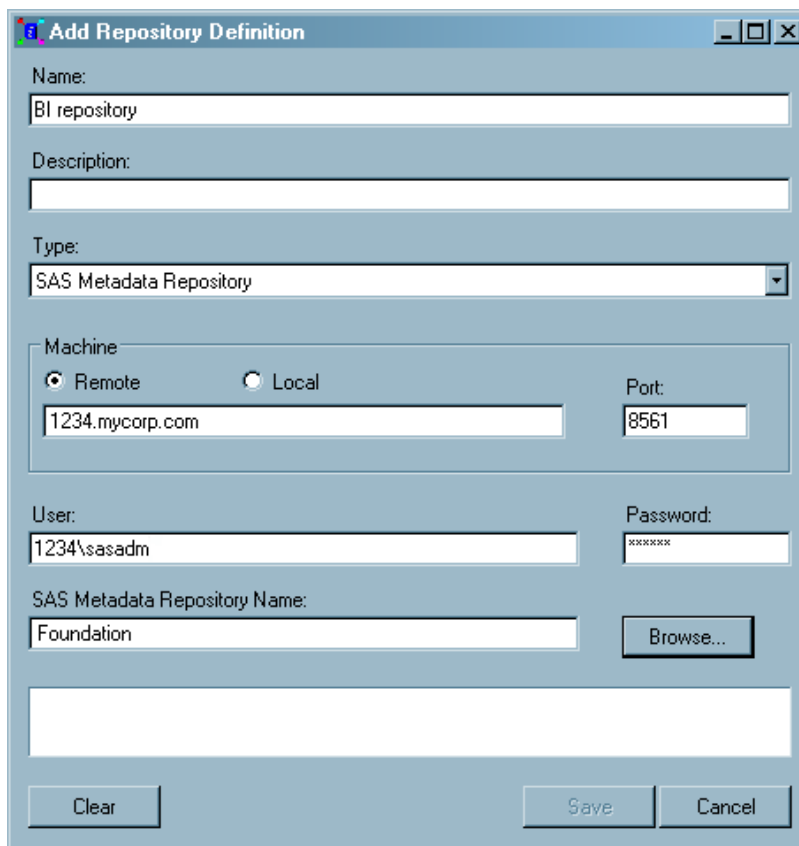
The Repository Manager window contains a list of all the SAS Metadata repositories and SAS Enterprise Guide repositories that have been defined for SAS Enterprise Guide Explorer. The active repository is identified by the active repository icon ( ).

The following sections provide information about specific management tasks that you can perform in this window.

Define a Repository

To use a SAS Metadata Repository or a SAS Enterprise Guide repository, you must create a definition for the repository in the Repository Manager. To define a repository, follow these steps:

1 Select **Repositories** from the selection pane, then click **Add**. The Add Repository Definition window opens.

2 Specify the name and description for the definition, then use the drop-down list in the **Type** field to specify the type of repository that you are defining. The remaining fields in the window might become active or inactive or might change names, depending on which type of repository you select (SAS Metadata repository or SAS Enterprise Guide repository).

For example, if you are defining a remote SAS Metadata repository, then you must specify the machine ID and port, the user ID and password for logging on to the machine, and the SAS metadata repository name. However, if you are defining a remote SAS Enterprise Guide repository, only the machine name is needed. Refer to the online help for the window for detailed information about the fields.

If you select SAS Metadata Repository in the `Type` field, then you must specify the SAS metadata repository name. After you specify the machine and user information, click `Browse` to view a list of defined repositories on the selected machine.

3 Click `Save` to create the repository definition and return to the Repository Manager window.

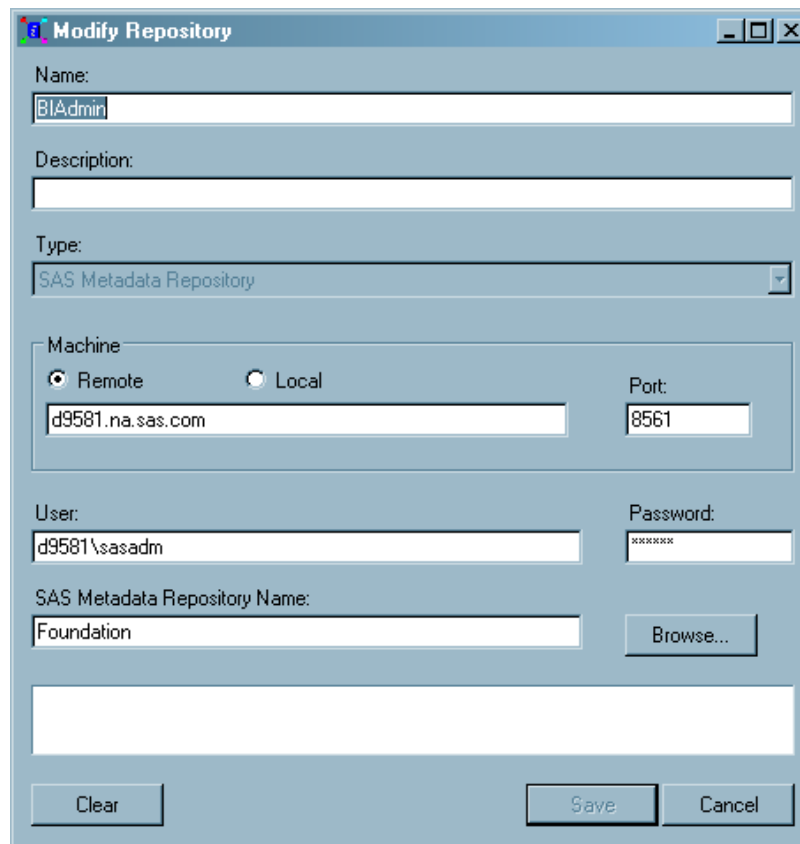## Specify an Active Repository

You can specify one repository as an active repository. The active repository serves as the source for all resource definitions (such as servers and libraries).

To specify an active repository, select `Repositories` from the selection pane, select a repository from the list of defined repositories, and click `Set Active`. The selected repository is identified by the active repository icon ( ).

Modify a Repository

After a repository has been defined in the Repository Manager, you can modify the properties of the repository. To modify a repository, follow these steps:

1 Select `Repositories` from the selection pane, then select the repository that you want to change and click `Modify`. The Modify Repository window opens.

2 In the Modify Repository window you can change repository options for the selected repository type. You cannot use this window to change the repository type.

3 Make any needed changes to the repository options, and then click `Save` to accept the changes and return to the Repository Manager window.

Delete a Repository

You can use the Repository Manager to delete a repository definition. Select `Repositories` from the selection pane, then select the repository that you want to remove and click `Delete`.

Specify the Channel Source

You can use the Repository Manager to specify the channels that are used by the Publish to Channel feature in SAS Enterprise Guide. You need to specify the channel source only if you are using this feature. To specify the channel source, follow these steps:

1 Select `Channels` from the selection pane.

2 If the active repository is a SAS Metadata Repository, the Repository Manager window indicates that the channel metadata is obtained from the active SAS Metadata Repository.

If the active repository is a SAS Enterprise Guide repository, the channel metadata is obtained from an LDAP server. Use the LDAP Configuration fields to specify information about the server and LDAP directory structure.

3 Click Save to save the specified LDAP information.

Configure Repository Updates

Whenever you make changes to the repository configuration, such as changing the location of a defined repository or adding a new repository, you must provide the changed information to SAS Enterprise Guide users so that they can find the changed repositories. To avoid having to update SAS Enterprise Guide users manually, you can store the repository configuration information in a shared location and enable SAS Enterprise Guide to automatically apply configuration updates.

To set up automatic updating, follow these steps:

1 Select **File ▶ Manage Repositories.**

2 In the Repository Manager window, select **Updates** from the selection pane.
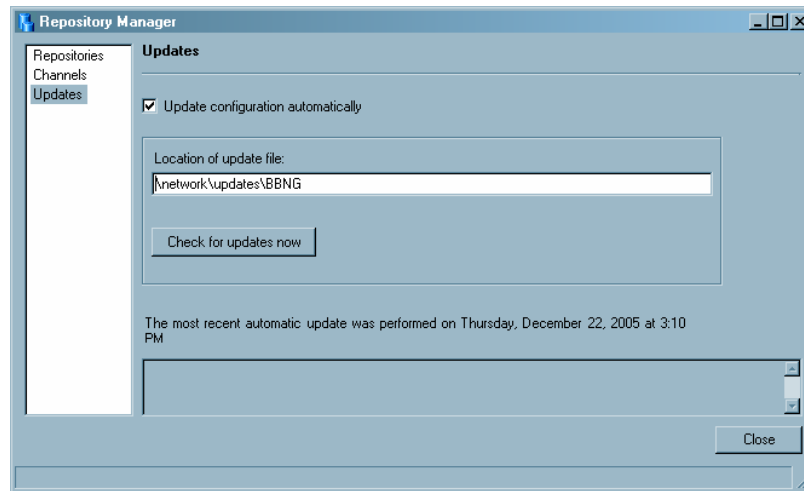
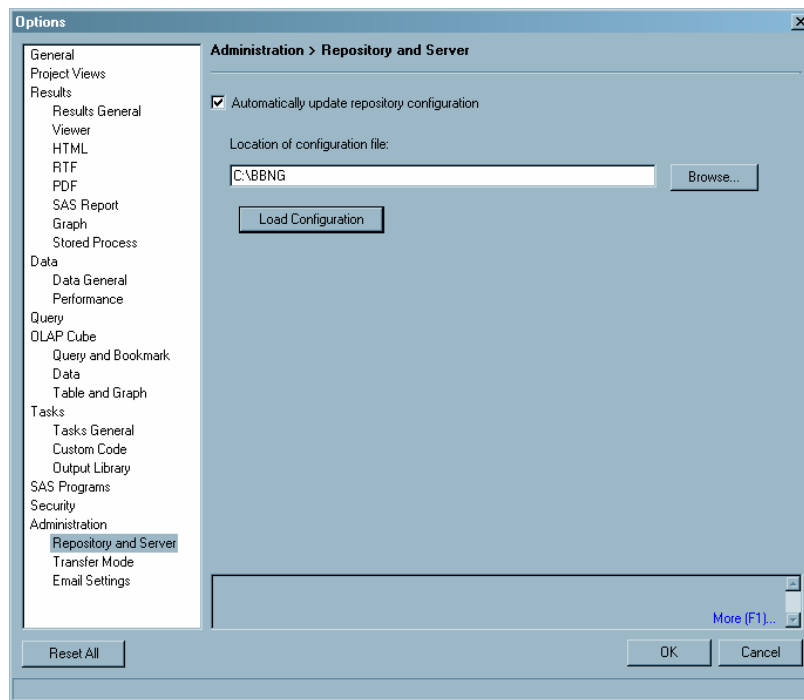**3** In the **Location of update file** field, specify a network location that all SAS Enterprise Guide users can access. When you activate automatic updating, SAS Enterprise Guide checks this location for automatic updates to the repository configuration information.

Select **Update configuration automatically** if you want SAS Enterprise Guide Explorer to receive updates to the configuration information. Usually, the information in SAS Enterprise Guide Explorer and the information in the configuration file are the same, but you might want to select this option for testing purposes.

Click **Check for updates now** to test whether SAS Enterprise Guide Explorer can locate the update information in the specified location.

4 Click **Close**.

5 Copy the SDSUpdate.xml file from the work directory that you specified when you first configured the repositories (see "Create a Shared Repository Deployment" on page 29) to the network location that you specified in the Repository Manager window.

6 Copy the SDSControl.xml file from the work directory to the network location that you specified in the Repository Manager window. If you change the location of the configuration update file, then you must copy the changed SDSControl file to all machines where SAS Enterprise Guide is installed.

7 Select **Tools ▶ Options**. This opens the Options window. Select **Repository and Server** under the **Administration** options.

8 Specify the location of the configuration update file that you specified in the Repository Manager window. Select **Automatically update repository configuration**. Click **Load Configuration** to apply the current configuration file. Click **OK** to close the window.

9 Include the EGOptions.xml file in the SAS Enterprise Guide installation package to automatically apply the option to all machines where SAS Enterprise Guide is installed. If you already have SAS Enterprise Guide installed, you can distribute the EGOptions.xml file to the machines where SAS Enterprise Guide is installed in order to change the default SAS Enterprise Guide options.

Create a Shared Repository Deployment

After you define the SAS Metadata repositories and SAS Enterprise Guide repositories, you can configure the deployment so that it is shared by SAS Enterprise Guide users. Whenever you make changes to the repository configuration, such as changing the location of a defined repository or adding a new repository, you must provide the changed information to SAS Enterprise Guide users so that they can find the changed repositories. By storing the repository configuration information in a shared location and enabling SAS Enterprise Guide to automatically apply configuration updates, you can avoid having to update SAS Enterprise Guide users manually.

To configure repository deployment in SAS Enterprise Guide Explorer, follow these steps:

1 Select **Tools ▶ Repository Deployment Wizard**

   The Repository Configuration Deployment Wizard starts. The first page lists the tasks that the wizard will perform. Click **Next** to continue.

2 The next page of the wizard lists the name and type of the active repository. To change the active repository or define a new repository, click **Configure Repositories**. Click **Next** to continue.

**3** The next page enables you to test the connection to all of the defined repositories. When you click **Begin Test**, the application attempts to establish a connection to each of the defined repositories. The Status column indicates whether the connection was successful. When you have finished the test, click **Next** to continue.
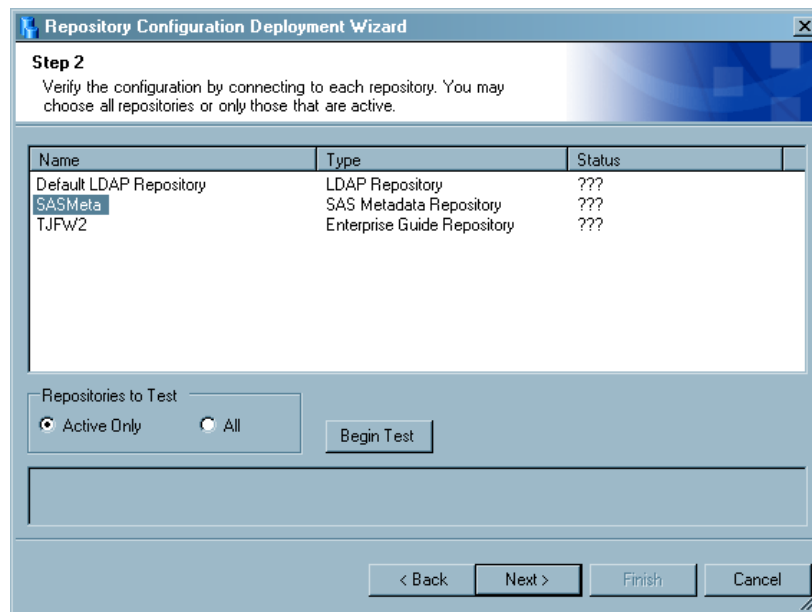
4 The next page enables you to specify the location of the shared configuration update file. By using automatic updating, you can make changes to the repository configuration in SAS Enterprise Guide Explorer, and those changes will automatically be sent to all SAS Enterprise Guide users.
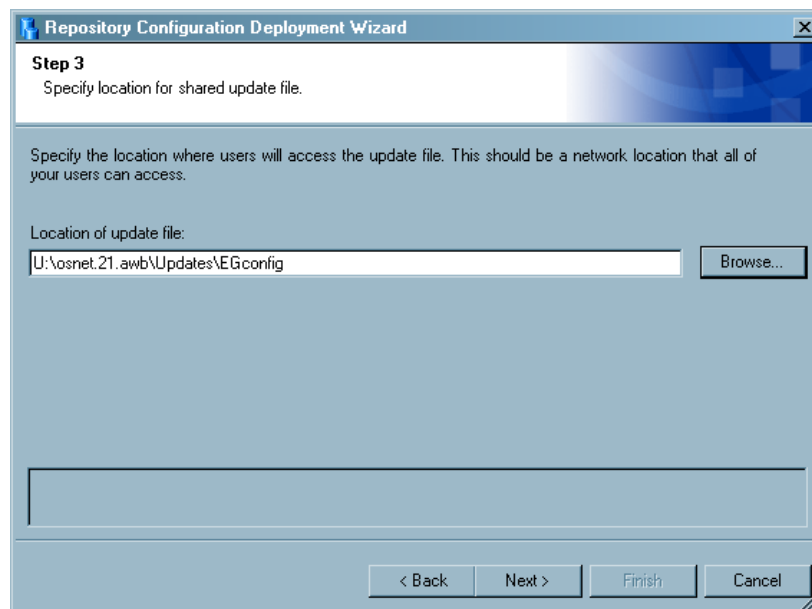
    If you specified the location of the configuration update file on the **Updates** area in the Repository Manager window, then the value that you specified is already listed in this field. If you did not already specify the location, then enter a network location that all SAS Enterprise Guide users can access.

5 Click **Next** to continue.

**6** Specify the location where SAS Enterprise Guide Explorer stores the repository configuration files.
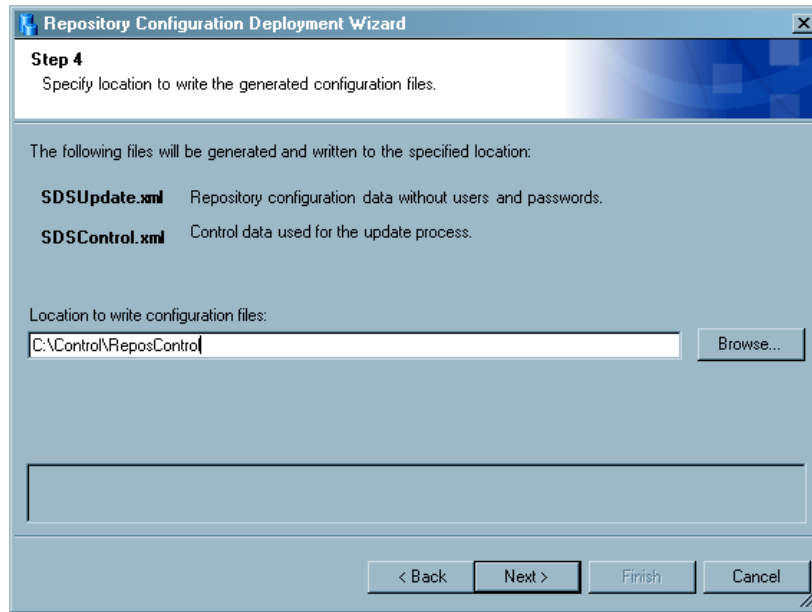
The SDSUpdate.xml file contains the configuration information that is read by SAS Enterprise Guide to provide automatic updating. When the configuration is complete, you should move this file to the location that you specified in step 3. The SDSControl.xml file is distributed with the SAS Enterprise Guide installation package in your organization. This file specifies the location of the automatic update file.

Specify a location on your local drive for these files. When the configuration process is complete, copy the files to the appropriate location.

7 Click **Next** to continue.

8 Specify whether you want to view the Read Me file. Then click **Finish** to create the repository configuration files.
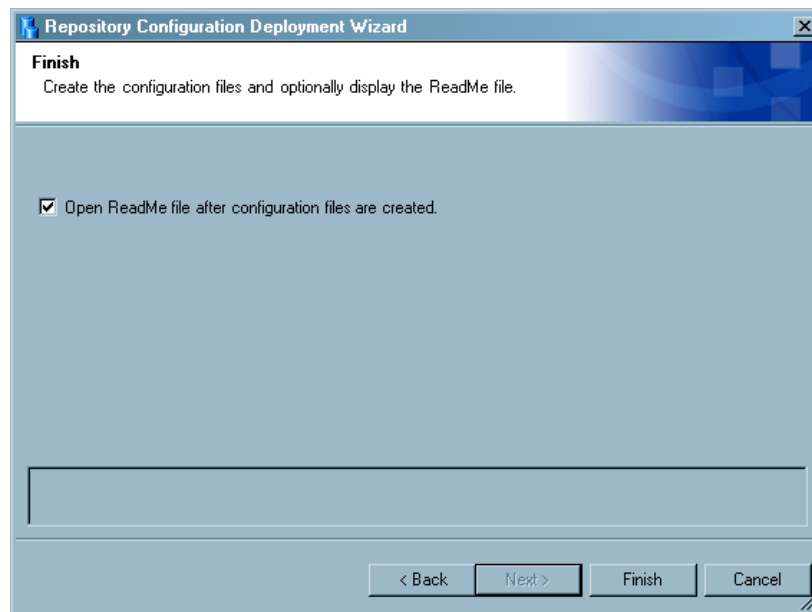
9   Copy the SDSUpdate.xml file from the work directory that you specified when you
    first configured the repositories (see "Create a Shared Repository Deployment" on
    page 29) to the network location that you specified in the Repository Manager
    window.

10 Copy the SDSControl.xml file from the work directory to network location for the
    SAS Enterprise Guide installation image. If you change the location of the
    configuration update file, you must copy the changed SDSControl file to all
    machines where SAS Enterprise Guide is installed.
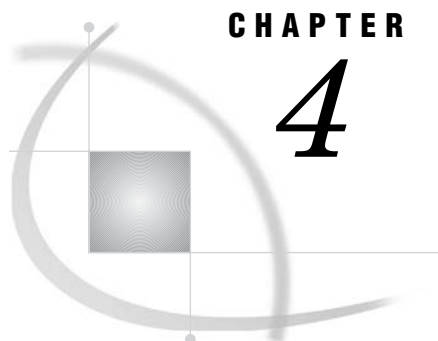
C H A P T E R

4

Preparing a Setup Image for Users

## Preparing a Setup Image for Users in a Networked Environment

Setting up SAS Enterprise Guide includes giving users access to a *setup image* of SAS Enterprise Guide. Users must access the setup image in order to install the SAS Enterprise Guide software on their local machines. In a networked environment, you create a setup image on a server. Note that the setup procedure includes pointing users to the correct metadata repository server process.

In a networked environment you can create *several* repositories for different groups of users. This is the most complex way to use repositories, and it is also the most powerful. If you create several repositories, then you will need to configure a different setup image for each group of users so that each group will access the correct repository at startup. This is appropriate if the groups do not have access to the same Windows servers.

To create a setup image for users in a networked environment:

1   If you have not already done so, choose a location for the setup image. The location should be on a server that your users can access. Using Windows Explorer or another file manager, copy the installation files (from the installation CD or from another location) to the chosen location.

2   Create a customized set of defaults for SAS Enterprise Guide installations, which are automatically applied when users install SAS Enterprise Guide. The defaults are read from the EGOptions.xml file (if present) and the options.ini file when the installation is performed. If you do not create an EGOptions.xml file, SAS Enterprise Guide will use the default values that are set by SAS.

To create the EGOptions.xml file, open the Enterprise Guide Options window by selecting **Tools ▶ Options**
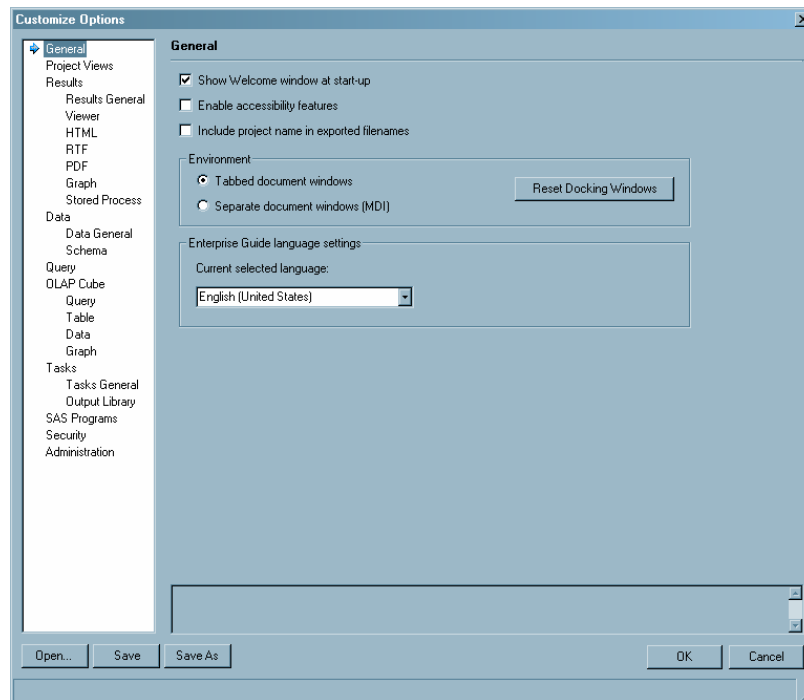
Specify the default values for SAS Enterprise Guide installations by selecting each category and setting the displayed options. Move the mouse pointer to an option in order to display a brief description of that option at the bottom of the window.

3 After you set the default values, click **Save** or **Save As**. In the Save window, specify a filename of EGOptions.xml. After you create the file, copy it to the location for the setup image.

4 Make sure that the repository information for this set of users is in a location where users can access it. (It does not need to be in the same location as the installation files.)

5 Copy the SDSControl.xml file from the work directory to the SAS Enterprise Guide setup directory and to the **<SHAREDFILES>\SAS Directory Services** location. This file contains the central repository information.

6 Copy the SAS Enterprise Guide application setup directory to a network drive that users can access in order to run SETUP.EXE, which is the program that installs a copy of the setup image on their local machines. Add the SDSControl.xml file to the directory where SETUP.EXE resides. You can provide a link from a Web site to the directory for easy access.
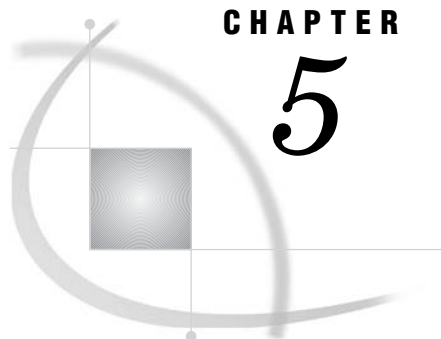
CHAPTER

5

Managing Metadata Objects Using SAS Enterprise Guide Explorer

Viewing the Objects

You view objects in SAS Enterprise Guide Explorer in much the same way as you view objects in the Windows Explorer. Click once on a category of objects in the left side of the window (Servers, Binders, Users, and so on) to display its contents on the right side.
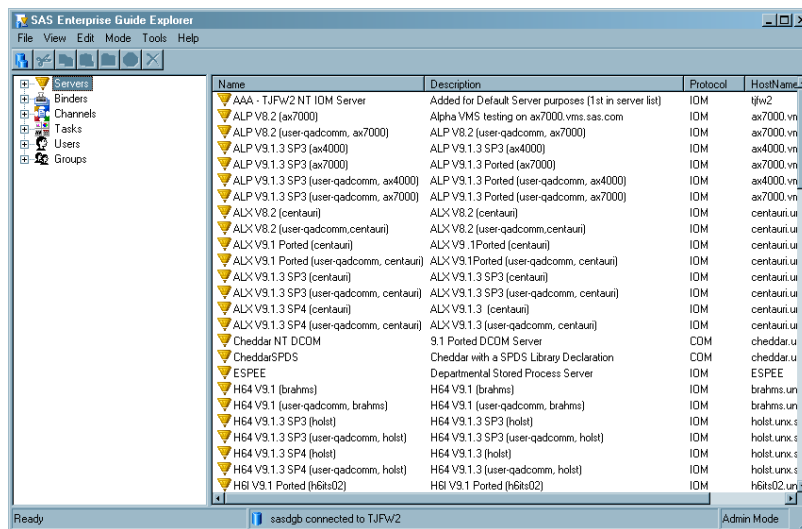
Double-click a category name to expand that category.

If you are accessing objects that reside on SAS servers, then you might be prompted to enter a user ID and password. In SAS Enterprise Guide Explorer, when you create a server object, you can configure it to require users to enter a user ID and password.

You can customize your session further by selecting **View** from the pull-down menu. From the menu you can activate options for displaying different views of the icons, sizes of the icons, and information about the objects.

Adding Objects

To add a new object to a SAS Enterprise Guide repository, select **File ▶ New** and then select the object type you want to create. The new object wizard that starts guides you through the process of creating the object you have selected. from each page in the wizard, you can use the **Back** button or pull-down menu to return to an earlier page, You can also click **Help** to access information on the current wizard page.

The types of objects you can add depends on the type of repository you are using. If you are using a SAS Metadata Repository, you can use SAS Enterprise Guide Explorer to add servers and libraries. However, you can also server and library definitions created in SAS Management Console. If you are using a SAS Enterprise Guide repository, you can add server, library, group, user, and binder definitions.

Managing Servers

About SAS Servers

SAS servers are networked computers on which SAS is installed. SAS servers enable multiple clients to access and use SAS data libraries (and members of the libraries) concurrently. A SAS server for SAS Enterprise Guide can be running in a Windows, z/OS, or UNIX operating environment. SAS Enterprise Guide Explorer defines which servers to use with the client platform.

If you are using a SAS Enterprise Guide repository, *clients* are SAS Enterprise Guide sessions on networked Windows workstations that request services from SAS servers.

The services might include SAS processing, data access, and data manipulation. The client is used to submit SAS processing either locally or to a remote SAS server.

You add SAS servers in SAS Enterprise Guide Explorer so that networked SAS Enterprise Guide users can execute SAS and access their data. If you add a SAS server that uses the TCP/IP protocol, then you need the following information:

- □ server type
- □ IP address/host name
- □ protocol
- □ port address
- □ user IDs and passwords (optional)

If you are using a SAS Metadata Repository, then servers that you define in SAS Enterprise Guide Explorer are accessible by any other application that uses the SAS Metadata Repository. You can create server definitions with SAS Enterprise Guide Explorer or SAS Management Console.

Adding SAS Servers

Note: To add a SAS server, select **File ▶ New ▶ Server** and follow the prompts on each page of the Server Wizard. Depending on the options you select in the wizard, the number of pages in the wizard and the page on which a specific option appears may change.

Use the following information when completing the wizard:

- □ On page 1 of the wizard, you must specify a name for the server. The name cannot contain any of these characters:

    \ / : * ? " < > |

    You can also enter a description when you specify a name for the server. The descrption will appear when a user attempts to log on to the server.
- □ On page 2 of the wizard, you must select the operating system of the server. The operating system you select will affect some of the optiobs available in the wizard (such as connection protocol and file navigation).
- □ On page 3 of the wizard, you must select a connection protocol and specify a host name and port number. You should only select COM for the connection type if the server is running on your local Windows machine. Select IOM Bridge for all other server types.

    Enter a DNS name or IP address in the Host Name field and specify the port used to connect to the server.
- □ On page 4 of the wizard, you specify how users will log on to the server. If you are using a SAS Metadata Repository, you can specify that the user will be prompted for logon information or that the server will use logon information that is stored on the SAS Metadata Server. You must also specify an authentication domain to use with the logon information. You can either select from the authentication domains that are already defined in the SAS Metadata Server or define a new domain. If you are using a SAS Enterprise Guide repository, you can specify that the user will be prompted for logon information or provide a user ID and password to be used each time he or she logs on to the server.
- □ If you are defining a connection to a z/OS server, page 7 of the wizard lets you specify the search patterns that will help users locate z/OS libraries. SAS Enterprise Guide Explorer creates a filing cabinet for each pattern that you enter and creates folders for each data set that is a part of that pattern. If your site has a large number of z/OS libraries, then users can use the bound library filing

cabinets to quickly navigate to the specific data set that they are interested in. Because you are creating a navigational aid for users, you should choose patterns that will help users navigate to data sets quickly.

For example, assume that you need access to the following data sets on a z/OS server:

- □ SRV.MFG.PROD1 ... SRV.MFG.PROD20
- □ SRV.DEV.INV1 ... SRV.DEV.INV5
- □ SRV.TEST.DEV1

Specifying a pattern of SRV.*.* would result in a bound library that was too broad and contained too many sublevels to allow for rapid navigation. A more efficient solution would be to specify three bound library patterns:

- □ SRV.MFG.*
- □ SRV.DEV.*
- □ SRV.TEST.*

Bound libraries must be specified as a fully qualified name, with the last member specified as a wildcard character (*).

△

After you complete the Server Wizard, the new server should now appear in the list of servers in the viewer.

Updating Server Properties

Server properties include information such as names, protocols, and preferences. To update this information:

1 Locate the server in the SAS Enterprise Guide Explorer viewer whose properties you want to change. You can only edit server properties if you are not connected to the server. To disconnect from a server, select the server and select **Disconnect** from the pop-up menu.

2 Select the server in the viewer and select **Properties** from the pop-up menu.

3 Select the item in the selection pane that corresponds to the information that you want to update. See "Adding SAS Servers" on page 37 for information about each field.

Managing Libraries

About Libraries

Libraries are collections of files that are stored on a server and accessed from SAS Enterprise Guide. Libraries give SAS Enterprise Guide users convenient access to their data on servers. When you add a library through SAS Enterprise Guide Explorer, you make it available to all the networked SAS Enterprise Guide installations that have access to a specific metadata repository.

If you are using a SAS Metadata Repository, the library is also available to all other applications that use the repository. You can use SAS Enterprise Guide Explorer or SAS Management Console to create library definitions.

Note: Before you add a library, you must first add the server on which the library resides. △

To define a library:

1 Define the library's path on the server platform.

2 Specify the SAS engine that is identified with the library.

3 Enter any associated options that you can specify in a LIBNAME statement. LIBNAME options work like the commands in an AUTOEXEC.BAT file. The LIBNAME options are stored on the client and then executed when a SAS Enterprise Guide application connects to the specified SAS server. See *SAS Language Reference: Dictionary* for more information about SAS libraries, LIBNAME statements, and LIBNAME options.

Adding a Library

To add a library, select **File ▶ New ▶ Library** and follow the prompts on each page of the Library Wizard. Depending on the options you select in the wizard, the number of pages in the wizard and the page on which a specific option appears may change.

Use the following information when completing the wizard:

□ On page 1 of the wizard, you must specify a name for the library. The name can be up to 8 characters long and must not be duplicated on any server on which you are creating the library. The wizard automatically enters the name in uppercase characters.

□ If your active repository is a SAS Metadata Repository, you must select how the library is assigned on page 2 of the wizard. You must choose to assign the library by using one of the following:

SAS Enterprise Guide	specifies that SAS Enterprise Guide uses the metadata supplied in the wizard to assign the library by using the native engine. No table or column metadata is used.
SAS Server	specifies that the library is assigned in an autoexec statement or through a metaautoinit statement. SAS Enterprise Guide does not use the metadata that you specify for the library, but assumes that the library is already assigned.
Metadata Library Engine	if **Show only tables with metadata definitions** is checked, then only tables that have metadata definitions appear when the library is selected. If the check box is not selected, then all tables in the library will appear (even if you deny ReadMetadata permission for a table). Permissions are enforced if a user tries to open a restricted table.

□ On page 4 of the wizard, you must specify an engine for the library. Choose the SAS engine with which the data was created. For more information about engines, refer to the SAS documentation for your operating environment. See also the chapter that corresponds to your database management system in *SAS/ACCESS Software for Relational Databases: Reference*.

□ Also on page 4 of the wizard, you may have to specify the physical path where the library resides on the server. Depending on the value of the **Engine** field, **Path** may not be selectable. You can use the following wildcards in the **Path** field:

<userid>	substitutes a Windows user ID. For example, if a user logs on as ebeacon, then **\\librarypath\<userid>** becomes **\\librarypath\ebeacon**.
<sample>	substitutes the SAS Enterprise Guide sample directory. For example, if you installed by using the default directories, **<sample>\data** becomes **C:\Program Files\SAS\Enterprise**

Guide 3.0\Sample\data. If, however, another user installed
in **D:\EC**, then **<sample>\data** becomes **D:\EC\Sample\data**.

<serveruser>   substitutes the server logon user ID.

<serverpassword> substitutes the server logon password.

<libraryuser>   substitutes the library logon user ID.

<librarypassword> substitutes the library logon password.

Note: These wildcards may not work with client applications other than SAS
Enterprise Guide and Addon for Microsoft Office. △

☐ On page 5 or 6 of the wizard (depending on the value of the Engine field), you can
specify library options and values. If wildcards are valid in the **Path** field, then
you can also use them in the **Options** field. Avoid using prompting options such as
DBPROMPT=YES. For additional options, refer to the chapter that corresponds to
your database management system in *SAS/ACCESS Software for Relational
Databases: Reference*.

☐ Page 6 or 7 of the server lets you test the library definition on each server. If the
library name or libref is not unique on all servers, the conflict is listed in the
Status column.

After you complete the wizard, the library is created and then is displayed in the
viewer under the client libraries for the specified servers.

Creating the EGTASK Library

By default, SAS Enterprise Guide stores output data in the SASUSER, WORK, or
EGTASK library on the SAS server. You can select **Tools ▶ Options ▶ Output Library**
to change the default output library. For example, you might want all output to go to a
central library that all users can access. In addition, SASUSER is a temporary location
on z/OS and some UNIX systems, so output needs to be directed to a different location
in order to be saved permanently.

To define the EGTASK library if you are using a SAS Metadata Repository, you can
follow either one of these strategies:

☐ Use SAS Management Console to define the EGTASK library. Select Data Library
Manager and then select **New Library**. Choose **Pre-assigned Library** as the
library type to ensure that the library is assigned whenever the server starts.
Make sure the library is defined on all servers that will be used with SAS
Enterprise Guide.

☐ Use SAS Enterprise Guide Explorer to add the LIBNAME statement for EGTASK
to all server definitions used by SAS Enterprise Guide. Include the statement in
the **SAS startup statements** field in the New Server wizard (for new servers) or
in the Properties window (for servers that have already been defined).

To define the EGTASK library if you are using a SAS Enterprise Guide repository:

1 Select **File ▶ New ▶ Library** . Enter **EGTASK** in the **Name** field on page 1

2 Enter EGTASK in the LIBREF field on page 2. Select the **Assign at Server
Startup** check box. This value ensures that EGTASK is created and available
every time the server is started.

3 On page 3 of the wizard, select a server on which users run tasks. If more than
one server is used to run tasks, then you must go through the library definition
process separately for each server that needs to have EGTASK available.

4 On page 4, select **BASE** in the **Engine** field. In the **Path** field, type or select a
location that is not protected and is available to all users.

   5 Select the defaults for the remaining options and complete the wizard to create the definition.

Updating Library Properties

Properties for libraries include information such as names, pathnames, and LIBNAME options. To view or update this information:

   1 Select a server, and then locate the library whose properties you want to change. You can change properties for unassigned libraries only. If the library that you want to change is assigned, then click the right mouse button and select **Unassign** from the shortcut menu.

   2 Select the library and then select **Properties** from the pop-up menu.

   3 Select the item in the selection pane that corresponds to the information that you want to update. See "Adding a Library" on page 39 for information about each field.

Unassigning Libraries

You can assign and unassign libraries dynamically during an SAS Enterprise Guide Explorer session. To unassign an assigned library, right-click the library name and select **Unassign** from the shortcut menu. The color of the library icon changes from yellow to white to indicate that the library is not assigned. While the library is disconnected, its icon is also white in any open dialog boxes to indicate that the library is selectable but currently unassigned.

To assign the library, right-click the library icon and select **Assign** from the shortcut menu. The library icon changes back to yellow.

Note: Do not manually assign and unassign libraries on z/OS servers. When a library on an z/OS server is assigned, it locks out all other potential users. △

Managing Binders

About Binders

Binders are a type of virtual folder that provide users with transparent access to data and, at the same time, enable users and work groups to easily share information across an enterprisewide network of servers on multiple platforms.

Users access binders through SAS Enterprise Guide. You can control user access to binders through groups, or you can grant all SAS Enterprise Guide users access to binders. You can insert shortcuts to data so that users can easily access information without having to know its exact location.

Binders are not available if you are using a SAS Metadata Repository.

To create a binder, select **File ▶ New ▶ Binder** and follow the prompts on each page of the Binder Wizard. On page 2 of the wizard, you must select the folder location of the binder. You can choose one of the following:

Server   specifies a file or directory on a server. When an SAS Enterprise Guide user opens a file from a binder that maps to a location on a server, a *copy* of the file is sent to the client machine so that other users can still access the file. After the SAS Enterprise Guide user saves and closes the file, the file is updated on the server.

File System   specifies a folder in the Windows file system.Binders that map to native files contain files and directories that users can access by using Windows native file protocols. The files and directories can reside on local drives or on any file server in the Windows network; they do not reside on servers that you administer through SAS Enterprise Guide Explorer.

         Note: Because others can share native files on Window servers, be aware that when users open files in native binders, they are granted direct access to those files. Therefore, they might lock out other users. The files in native folders are not copied to client machines as they are in files on a server location. △

No Folder   creates an empty binder that you can later populate with shortcuts, files, and other binders.

Deleting a Binder

Note: A binder merely points to items that reside on servers. Therefore, the original items are **not** deleted when you delete the binder. However, any shortcuts in the binder are deleted when you delete a binder. △

To delete a binder, select the binder in the viewer, then select **Delete** from the shortcut menu.

Managing Groups

About Groups

A *group* is a collection of SAS Enterprise Guide users who are granted access to the same set of resources, such as SAS servers, libraries, and binders. If you will be adding groups, it is best to add at least one group first, and then add the users that belong to that group. Then, as you add each user, you assign the user to one or more existing groups.

If you are using a SAS Metadata Repository, you must use SAS Management Console to view and manage groups. If you are using a SAS Enterprise Guide repository, you can view and manage groups in SAS Enterprise Guide Explorer.

Compared with user profiles, groups provide a lower maintenance approach to resource access management, because updating information for a group is easier than updating information for individual users. Groups and users are useful for high-security environments where you need strict control of user access to resources. If, however, you are granting your users universal access to servers and binders, then you do not need to add groups.

Adding a Group

To add a group, select **File ▶ New ▶ Group** and follow the prompts in the Group Wizard. The wizard lets you select the group members as well as the servers, binders, and tasks that the group members can access.

Deleting a Group

To delete a group, select the group in the viewer, then select **Delete** from the shortcut menu.

Note: Deleting the group does not delete the users who are its members. To delete specific users, see "Deleting a User" on page 44. △

Updating Group Properties

Access group properties to update information for groups and set defaults.

To change the properties for a group, select the group in the viewer and select **Properties** from the shortcut menu. Select the item in the selection pane that corresponds to the information you want to update.

Managing Users

About Users

Users are individuals with unique ID and password combinations. In a networked environment, you can create *groups* of users to control access to servers, libraries, and binders. If you will be adding groups, it is best to add at least one group first, and then add the users who belong to that group. For information about groups, see "Managing Groups" on page 42.

If you are using a SAS Metadata Repository, you must use SAS Management Console to view and manage users. If you are using a SAS Enterprise Guide repository, you can view and manage users in SAS Enterprise Guide Explorer.

Note: If you are an administrator in a networked environment, you must first add yourself as a user with administrator privileges, and then assign yourself to a group. △

For example, suppose that you have a new user who just installed the SAS Enterprise Guide software on his local machine. Suppose that he wants to access an administered library on a UNIX machine that you added earlier by using SAS Enterprise Guide Explorer. As you add the new user, you can assign the user to a group that already has access to the UNIX server and the administered library.

You will need to gather this information before adding each user:

☐ name

☐ user ID (for the PC)

☐ phone number (optional)

☐ office location (optional)

☐ e-mail address (optional).

Adding a User

To add a user, select **File ▶ New ▶ User** and follow the prompts in the User Wizard. The wizard lets you specify the user's name, ID, identifying information, and group membership.

On page 2 of the wizard, you can select whether to grant the user administrator privileges. Granting these privileges gives the user write access to the SAS Enterprise Guide repository.

Deleting a User

To delete a user, select the user in the viewer, then select **Delete** from the shortcut menu. The user is automatically deleted from any groups that included the user.

Note: You cannot delete users whose names are in brackets []. △

Updating User Properties

User properties include user IDs, group memberships, and privileges. To change the properties for a user, select the user in the viewer and select **Properties** from the shortcut menu. Select the item in the selection pane that corresponds to the information you want to update.

Managing Security Settings

About Security Settings

If you are using a SAS Metadata Repository, you can specify security settings for SAS resources such as SAS folders, stored processes, and projects. Security settings are permission rules that specify which users or groups of users that are defined in the SAS Metadata Repository can access SAS resources. You can choose to grant read or write permission to a specific SAS resource or specify that the security settings for a resource be inherited from the parent of the resource.

Specifying Security Settings

You can specify security settings only if you are using a SAS Metadata Repository. To specify the security settings for an object:

1   In the SAS Enterprise Guide Explorer object tree, select the object for which you want to specify security settings. Security settings can be applied to SAS folders, stored processes, and projects.

2   Right-click and select **Properties**. The Properties window appears.

3   Select **Security** from the list to display the current security settings. You can specify that the security settings for the object should be inherited, or you can explicitly define the settings.

4   To inherit the security settings, select **Use inherited security settings**.

   If security settings have been explicitly defined for any parent of the current object, the window specifies the settings that are in effect and identifies the object from which the settings are inherited.
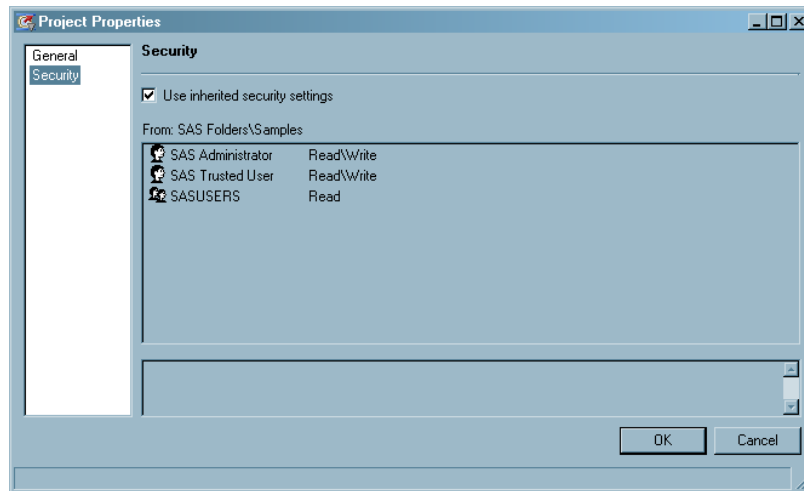
If security settings have not been defined for any parent objects, the default security settings for the metadata repository are used. You must use the Authorization Manager in SAS Management Console to view or modify these default settings.

5 To explicitly define security settings, clear the **Use inherited security settings** check box. The window displays a list of the users and groups that have been defined on the metadata server by SAS Management Console. Use the drop-down list to display only the available users or the available groups.

Select the users and groups for which you want to define security settings, and use the arrows to move them to the **Selected Users and Groups** list.

Select a user or group in the **Selected** list and use the **Acces**s check boxes to specify the security settings for the user or group. The available security settings are as follows:

Read   specifies that the user or group can view the resource and view the metadata for the selected resource. This option corresponds to the ReadMetadata permission in SAS Management Console.

Write   specifies that the user or group can modify the resource and the metadata for the resource. This option corresponds to the WriteMetadata permission in SAS Management Console.
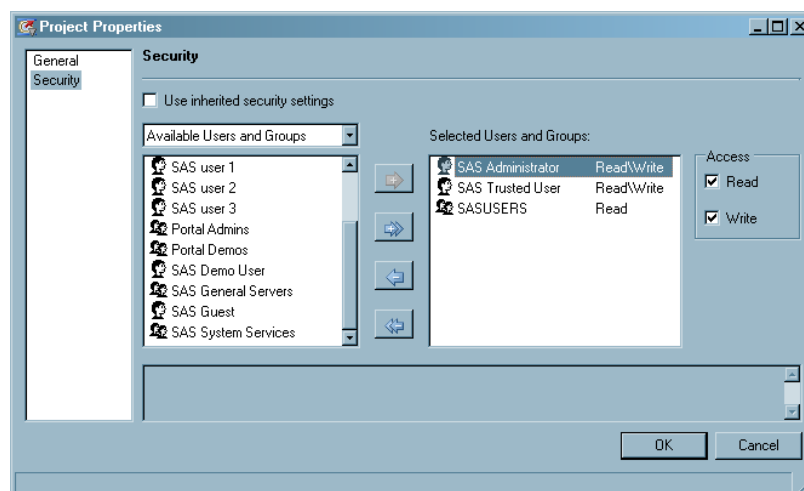
CAUTION:
If you clear the "Use inherited security settings" check box, you must grant write access to at least one user or group. If you do not grant this access, an administrator must change the security settings to allow access. △

6 Click **OK** to close the Properties window and apply the security settings.
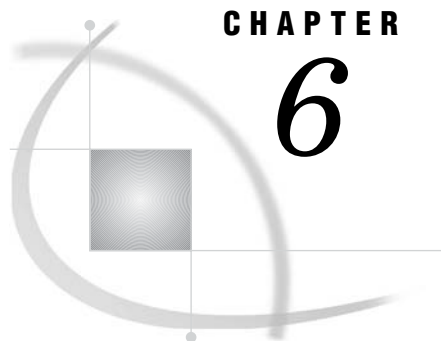
C H A P T E R

6

Administering SAS Enterprise Guide Tasks

Administering Tasks

SAS Enterprise Guide Explorer enables you to specify which tasks are available to each SAS Enterprise Guide user group. You can use this capability to disable certain tasks for user groups that do not need to run those tasks. You can also increase users' efficiency by enabling only those tasks that they need to use. Task administration applies only to tasks that are supplied with SAS Enterprise Guide.

The task administration process consists of three steps:

1   Importing task definitions

2   Selecting tasks to enable for each user group

3   Turning on task administration.

Importing Task Definitions

Task definitions are entries in an XML file that contain the information that SAS Enterprise Guide Explorer needs in order to work with each task. You can administer only tasks whose definitions you have imported into SAS Enterprise Guide Explorer.

You must be working with a SAS Enterprise Guide repository in order to administer tasks. This function is not supported with SAS Metadata repositories.

To import task definitions:

1   Select **Tools ▶ Task Import Wizard**

The first page of the wizard provides a brief introduction to the wizard and identifies the currently active SAS Enterprise Guide repository and repository machine.

Click $\boxed{\text{Next}}$ to continue.

2   The Location page (page 2) allows you to specify the location of the file that contains the SAS Enterprise Guide task definitions. Select **All known locations on this computer** to search all common locations. Select **From this file** and specify a filename to import task definitions from a specific file. By default, task definitions are contained in the **AddInRegistry.xml** file that is stored in the SAS Enterprise Guide directory.

Click **Next** to continue.

3 The Search page (page 3) displays the number of task definitions that were found and the number that are identical or similar to task definitions that have already been imported.
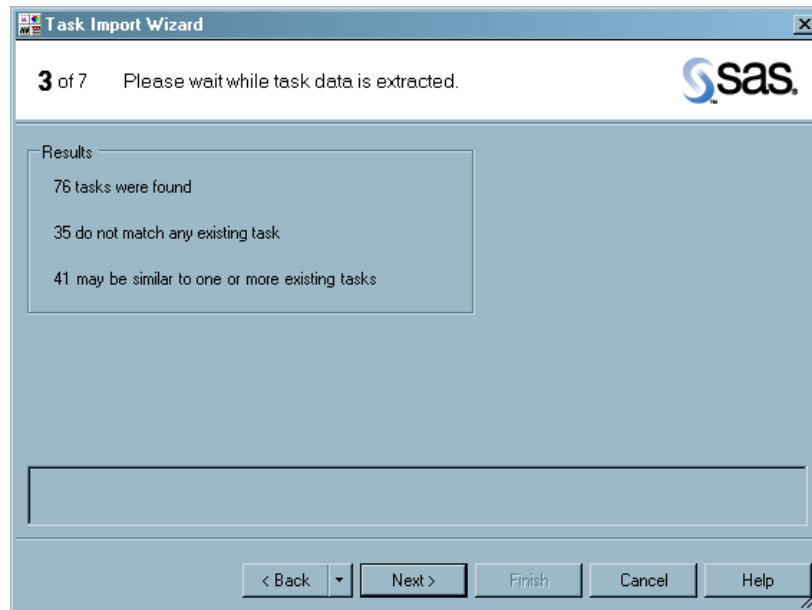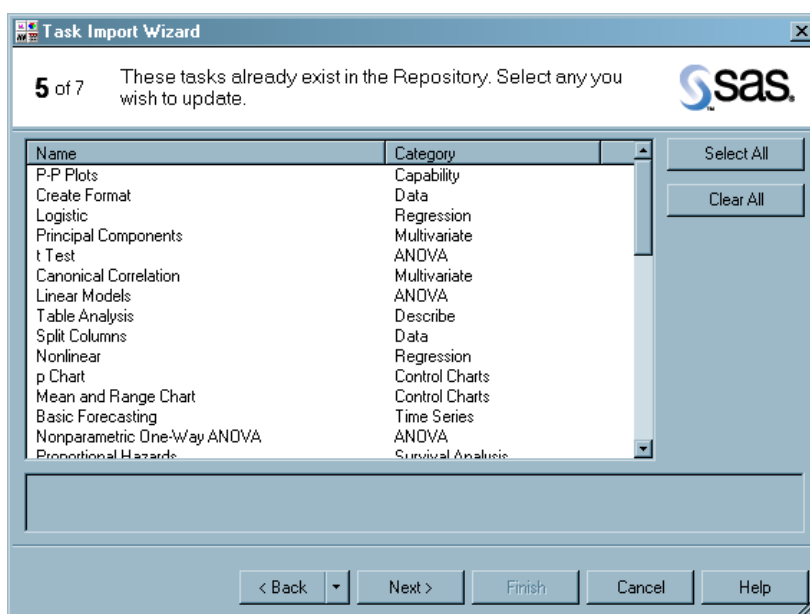

Click **Next** to continue.

4 The Adding Tasks page (page 4) lists the tasks in the selected file or location that do not match tasks that are already in the repository.
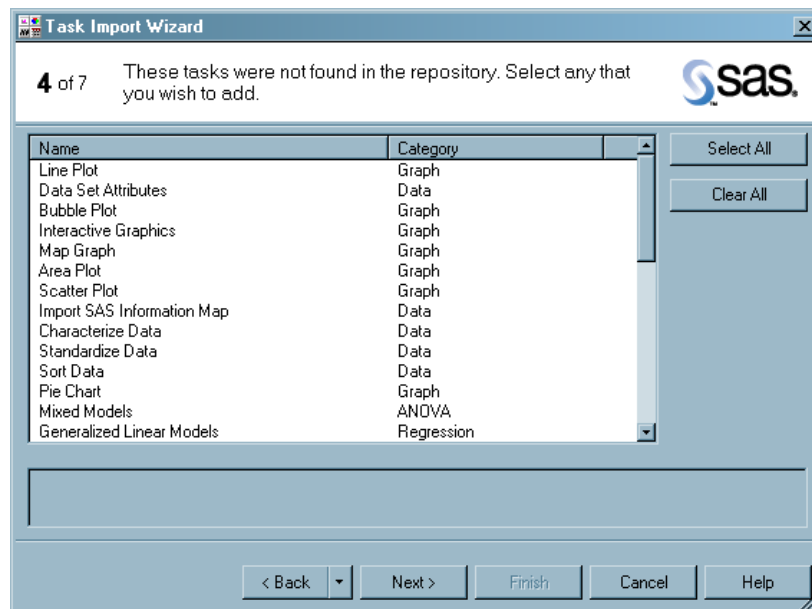
Select the tasks whose definitions you want to add to the repository (or click **Select All** to select all of the listed tasks), and click **Next** to continue.

5 The Existing Tasks page (page 5) lists the tasks that already exist in the repository.

Select the tasks whose definitions you want to update (or click `Select All` to select all of the listed tasks), and click `Next` to continue.

6 The Locale page (page 6) lets you specify the locale for the imported tasks. The available locales are those that were selected when SAS Enterprise Guide was installed.

Select the locale from the pull-down list, then click `Next` to continue.

7 The Finish page (page 7) lists the number of tasks that will be added and updated in the repository.

Click `Finish` to import the task definitions.

Enabling Tasks for User Groups

After you import the task definitions, you must determine which tasks each user group should have access to. To successfully implement task administration, every SAS Enterprise Guide user must be assigned to a group, and you must enable a set of tasks for every group. A user who is not assigned to a group will not have access to any SAS Enterprise Guide tasks.

To enable tasks for user groups:

1 Ensure that all users have been assigned to a user group.

2 Select a group whose tasks you want to enable. To open the Properties window for the group, select **File ▶ Properties**

3 In the Properties window, select the `Tasks` item.
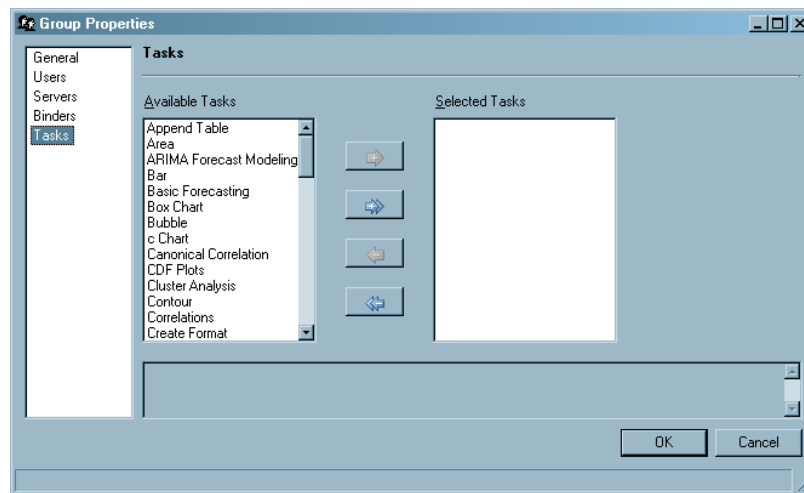
4 The **Available Tasks** box lists the SAS Enterprise Guide tasks whose definitions are contained in the repository. Select the tasks that you want the members of the user group to have access to, and click the arrow control to move the selected tasks to the **Selected Tasks** list.
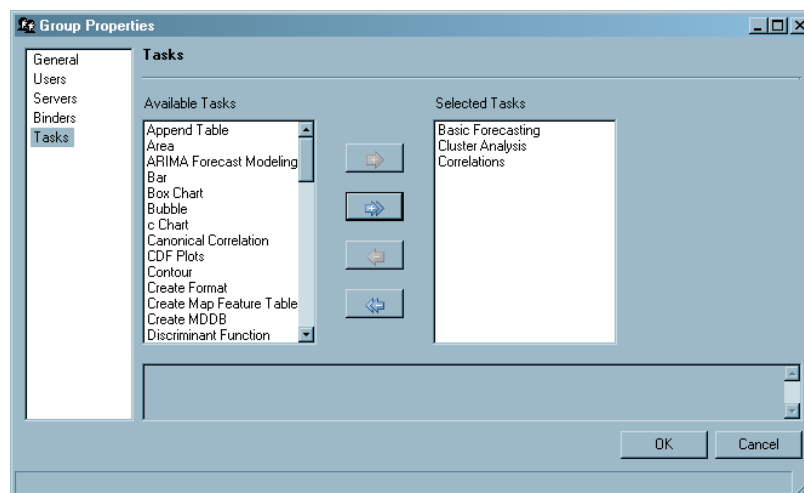
5 Click **OK** to close the Properties window.

6 Repeat this selection process for all user groups. If you do not enable a set of tasks for a user group, then by default all tasks will be turned off for the members of that group.

Enabling Task Administration

After you import the task definitions and enable tasks for all user groups, you must enable task administration in order for the settings to take effect.

To enable task administration:

1 Select **Tools ▶ Options**

The Options window opens.
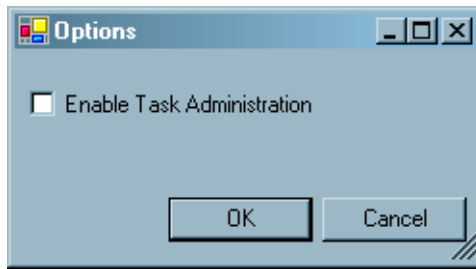
2 Select **Enable task administration** and click **OK** to close the window.

The task settings for each user group will take effect whenever a user starts a SAS Enterprise Guide session. If users have already started an SAS Enterprise Guide session when task administration is enabled, then the task settings will not take effect until they start a new session.
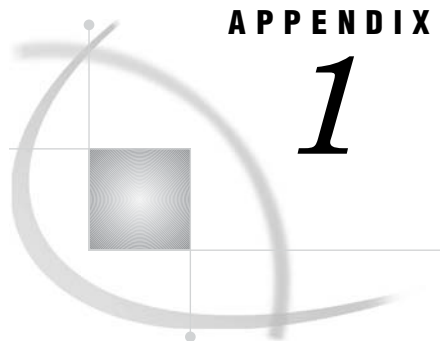
APPENDIX

1

Recommended Reading

Recommended Reading

Here is the recommended reading list for this title:

☐ *Getting Started with SAS Enterprise Guide*

☐ *SAS Integration Technologies: Administrator's Guide*

☐ *SAS Learning Edition*

☐ *SAS Management Console: User's Guide*

☐ *SAS Metadata Server: Setup and Administration Guide*

☐ *SAS Open Metadata Architecture: Best Practices Guide*

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Glossary

binder
a virtual folder that can be mapped to a folder or directory on a server or to a folder in a Windows file system. Binders enable multiple users and work groups to easily access and share data across a network of servers on multiple platforms. Binders can contain Enterprise Guide projects, source-code files, SAS data files, and other types of data files.

COM (Component Object Model)
an object-oriented programming model that defines how software components interact within a single process or between processes. For example, COM includes standard rules of communication that enable a user-interface object to be dragged and dropped from one application window to another.

database library
a collection of one or more database management system files that are recognized by SAS and that are referenced and stored as a unit. Each file is a member of the library.

DCOM (Distributed Component Object Model)
an extension to the Component Object Model (COM) that enables components to request services from components that are on other computers in a network.

engine
a component of SAS software that reads from or writes to a file. Each engine enables SAS to access files that are in a particular file format.

LDAP (Lightweight Directory Access Protocol)
a set of protocols that are used for accessing directories or folders. LDAP is based on the X.500 standard, but it is simpler and, unlike X.500, it supports TCP/IP.

LDIF (LDAP Data Interchange Format)
a file format that is widely used for building a database of directories that are stored on multiple servers, for adding large numbers of directories to a directory database, and for synchronizing the contents of those directories. The servers on which the directories are stored must support the LDAP protocol.

libref (library reference)
a name that is temporarily associated with a SAS library. The complete name of a SAS file consists of two words, separated by a period. The libref, which is the first word, indicates the library. The second word is the name of the specific SAS file. For example, in VLIB.NEWBDAY, the libref VLIB tells SAS which library contains the

file NEWBDAY. You assign a libref with a LIBNAME statement or with an operating system command.

metadata repository
a collection of related metadata objects, such as the metadata for a set of tables and columns that are maintained by an application. A SAS Metadata Repository is an example.

metadata server
a server that provides metadata management services to one or more client applications. A SAS Metadata Server is an example.

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 Universal Unique Identifier (UUID).

repository
a location in which data, metadata, or programs are stored, organized, and maintained, and which is accessible to users either directly or through a network. See also metadata repository, SAS Metadata Repository.

SAS client
a SAS session that requests access to remote data by means of a SAS server.

SAS Metadata Repository
a repository that is used by the SAS Metadata Server to store and retrieve metadata. See also SAS Metadata Server.

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.

schema
a map or model of the overall data structure of a database. A schema consists of schema records that are organized in a hierarchical tree structure. Schema records contain schema items.

server
a computer system that provides data or services to multiple users on a network. The term 'server' sometimes refers to the computer system's hardware and software, but it often refers only to the software that provides the data or services. In a network, users might log on to a file server (to store and retrieve data files), a print server (to use centrally located printers), or a database server (to query or update databases). In a client/server implementation, a server is a program that waits for and fulfills requests from client programs for data or services. The client programs might be running on the same computer or on other computers.

tasks
in Enterprise Guide, operations that correspond to SAS procedures and SAS functions that analyze, manipulate, or display data. From the Task List you can select the analysis and reporting tasks that you want to run on your data.

Index

Your Turn

If you have comments or suggestions about *Administering SAS Enterprise Guide 4.1*, please send them to us on a photocopy of this page, or send us electronic mail.

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