SAS® Studio 3.2

Administrator's Guide

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SAS® Studio 3.2: Administrator's Guide

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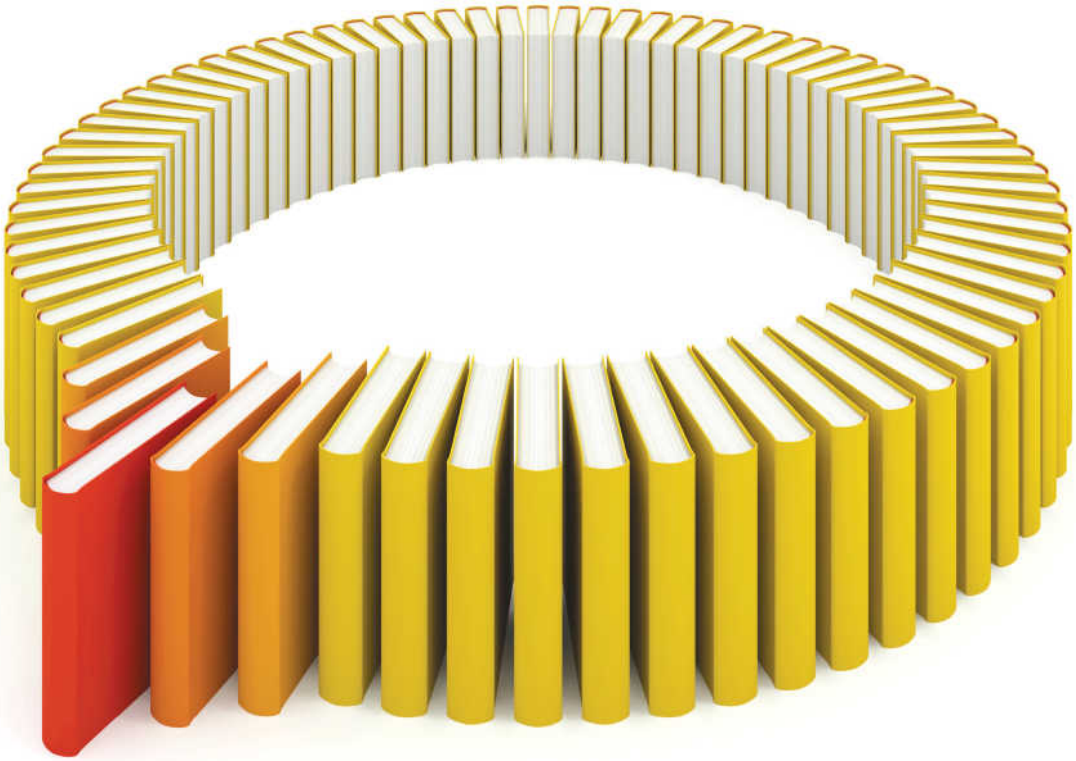

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Using This Book

Audience

This book is intended for administrators who are installing and configuring SAS Studio.

Requirements

SAS Studio is available if your site licenses SAS in Windows environments, SAS Integration Technologies, or SAS In-Memory Statistics for Hadoop. SAS Studio can be deployed in Windows and UNIX operating environments. z/OS environments are not supported.

This document assumes that you have completed the steps in your Software Order E-mail and created your SAS Software Depot.

Recommended Reading

- *SAS Deployment Wizard and SAS Deployment Manager 9.4: User's Guide*
- *SAS Intelligence Platform: Installation and Configuration Guide*
- *Configuration Guide for SAS 9.4 Foundation for UNIX Environments*
- *SAS Studio: User's Guide*
- *SAS Studio: Developer's Guide*

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1

Introduction to SAS Studio

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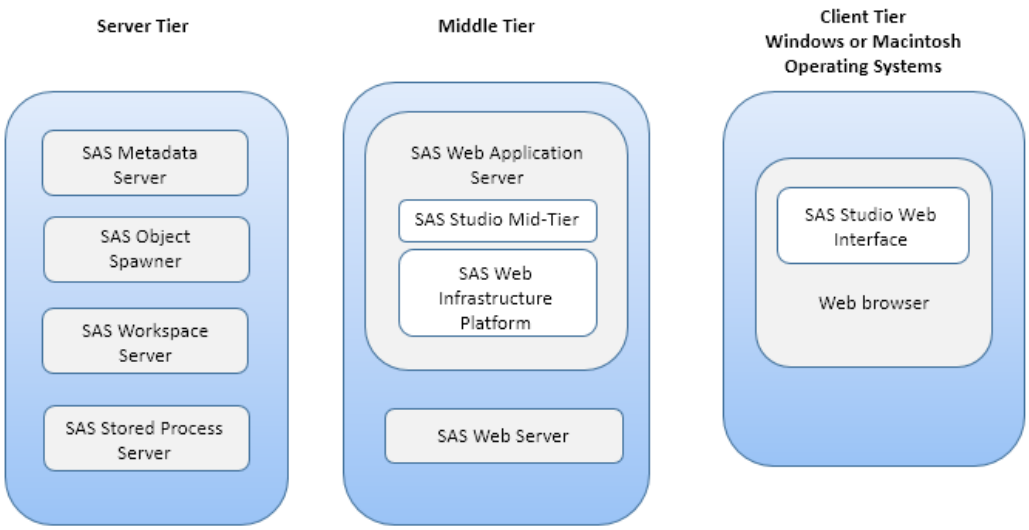
Overview of SAS Studio

SAS Studio is a development application for SAS that you access through your web browser. With SAS Studio, you can access your data files, libraries, and existing programs, and you can write new programs. You can also use the predefined tasks in SAS Studio to generate SAS code. When you run a program or task, SAS Studio connects to a SAS server to process the SAS code. The SAS server can be a hosted server in a cloud environment, a server in your local environment, or a copy of SAS on your local machine. After the code is processed, the results are returned to SAS Studio in your browser.

SAS Studio is available in three deployments: SAS Studio Mid-Tier (the enterprise edition), SAS Studio Single-User, and SAS Studio Basic.

SAS Studio Mid-Tier

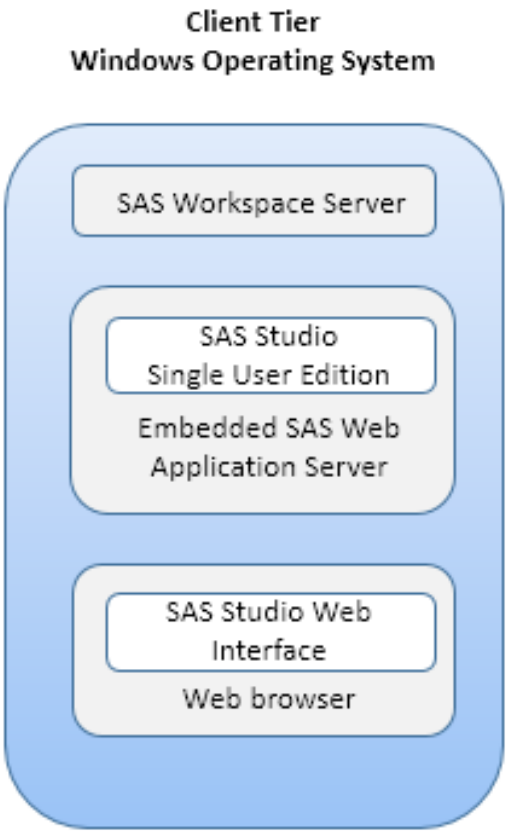
The enterprise edition of SAS Studio is available if your site licenses SAS Integration Technologies. This edition includes the SAS Metadata Server, the SAS Web Application Server, the SAS Web Server, and the SAS Web Infrastructure Platform services, applications, and data server.



In a SAS Studio Mid-Tier deployment, the directory path for **My Folders** is the home directory on the remote SAS server.

SAS Studio Single-User

The single-user edition of SAS Studio is delivered with Base SAS and runs on Windows operating environments. Because everything is installed on a single computer, users can access local files. There is no need to upload data or programs. For the single-user edition, all the parts of SAS Studio are installed on the same machine, and only one user identity is allowed access.



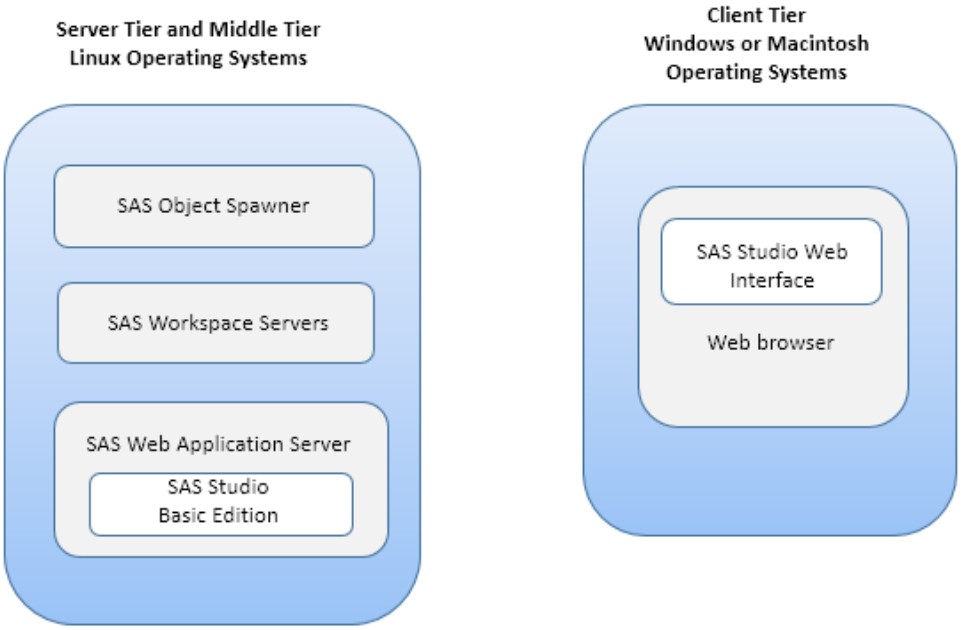
Note: The single-user edition does not support the e-mail service that is available in the SAS Studio Mid-Tier and SAS Studio Basic editions.

Because your SAS server is your local machine, the directory path for **My Folders** is your home directory on your local machine. The folders list also includes folders for your desktop, documents folder, and all currently mapped drives.

SAS Studio Basic

The basic edition of SAS Studio is delivered with Base SAS and runs on UNIX operating environments. This edition includes the SAS Web Application Server and the SAS

Object Spawner. Any user who has an operating system account on the UNIX machine can log on through a web browser over the network.



In the basic edition, the directory path for **My Folders** is your home directory on the remote SAS server. In the user interface, the folder list also includes the root folder of the UNIX file system on the remote SAS server.

Using SAS Studio with a SAS Grid

SAS Studio can take advantage of the processing capabilities of a SAS Grid. The approach to take to add grid support depends on the edition of SAS Studio that you are using.

For more information, see the “Using SAS Studio with a SAS Grid” topic in *Grid Computing in SAS*.

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SAS Studio Mid-Tier

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Installation and Configuration Process for SAS Studio Mid-Tier

You install the enterprise edition of SAS Studio by using the SAS Deployment Wizard. The enterprise edition can be installed across multiple machines. You must use a deployment plan, which contains information about what software should be installed

and configured on each machine in a SAS deployment. A deployment plan is stored in a plan.xml file.

After installing the software, you might need to complete some post-configuration steps, such as setting up your users in the metadata.

How to Install SAS Studio Mid-Tier

To install and configure the enterprise edition of SAS Studio, use the SAS Deployment Wizard and follow the basic process that is described in *SAS Intelligence Platform: Installation and Configuration Guide*. Some steps in the SAS Deployment Wizard are specific to installing and configuring SAS Studio. Here is the information that you need to install SAS Studio:

1. Start the SAS Deployment Wizard from your SAS Software Depot. In a Windows system environment, double-click `setup.exe` in your SAS Software Depot folder. In UNIX environments, run `setup.sh`.

   The SAS Deployment Wizard opens.

2. In the Specify Deployment Plan step, select your deployment plan.

   Note: SAS Studio is installed as part of SAS Integration Technologies, so any plan that includes SAS Integration Technologies and the SAS Web Infrastructure Platform also includes SAS Studio.

3. In the Select Deployment Step and Products to Install step, verify that SAS Integration Technologies appears in the list of products to install.

4. Complete the remaining steps in the SAS Deployment Wizard by using the information for your site.

Setting Up Users in the Metadata

After you install the enterprise edition of SAS Studio, you need to specify your users in the metadata. You can do this by using SAS Management Console.

1 Open SAS Management Console.

- In Windows operating environments, select **Start** ▶ **Programs** ▶ **SAS** ▶ **SAS Management Console 9.4**.
- In UNIX operating environments, run `SASHome/SASManagementConsole/9.4/sasmc`.

2 In the Log On dialog box, enter `sasadm@saspw` as the user ID and the password for this account. (You specified this password when you created the sasadm account in the SAS Deployment Wizard.)

3 On the **Plug-ins** tab, expand the **SAS Management Console** ▶ **Environment Management** folders.

4 Right-click **User Manager** and select **New** ▶ **User**. The New User Properties dialog box appears.

5 On the **General** tab, specify the name of the user.

6 Click the **Accounts** tab, and then click **New**. The New Login Properties dialog box appears.

7 In the **User ID** text box, enter the operating system account for the user. Click **OK**.

Note: If your deployment supports Integration Windows Authentication (IWA), you need to use two logons. For the first logon, include the domain with your user ID, such as *domain\user ID*. For the second logon, use only your user ID.

8 Click **OK** to close the New User Properties dialog box.

Setting PUBLIC Access

About PUBLIC Access

PUBLIC access enables unregistered users to participate if they can authenticate to the metadata server (directly or through a trust mechanism). Unregistered users are referred to as PUBLIC-only users because their only SAS identity is that of the PUBLIC group. A PUBLIC-only user has the logons, permissions, and capabilities of the PUBLIC group. A PUBLIC-only user cannot belong to any other groups, or have any personal logons, or have any specialized (individual) access controls. Not all applications allow a PUBLIC-only user to log on.

How to Enable PUBLIC Access in SAS Studio

To enable PUBLIC access, complete these steps in SAS Management Console:

1 Provide the necessary repository-level access.

On the **Plug-ins**, tab, under **Authorization Manager** ▸ **Access Control Templates** right-click the repository ACT (**Default ACT**) and select **Properties**. On the **Permission Pattern** tab, grant the ReadMetadata and WriteMetadata to PUBLIC.

Note: Even users who only consume content need both of these permissions at the repository level, because some applications write system information about user activity, even during what appears to be a view-only transaction.

2 Provide Read access as needed.

On the **Folders** tab, grant the PUBLIC group Read permission for any information maps, cubes, and MLE data that you want to make universally available. A good approach is to create a folder branch for such content, set the grant on the top folder in that branch, and allow the grant to flow through the branch.

Note: Users also need ReadMetadata permission to folders and content objects. In general, it is not necessary to grant specific permissions because this permission

must flow through from the ACT into the public areas of the folder tree (for navigational purposes).

Note: If you want to allow everyone (including unregistered users) to contribute content to a particular folder, grant the PUBLIC group WriteMemberMetadata permission on that folder's **Authorization** tab.

3 Review role assignments for the PUBLIC group.

On the **Plug-ins** tab, under **User Manager**, right-click the PUBLIC group and select **Properties**. Review the PUBLIC group's role memberships. Often, no adjustments are necessary, because the initial role assignments give the PUBLIC group basic capabilities.

4 Ensure that the PUBLIC group can use servers.

a On the **Plug-ins** tab, under **Server Manager**, verify that the PUBLIC group has the ReadMetadata permission for any servers that the PUBLIC-only users access.

b If necessary, add one or more logons on the PUBLIC group's **Accounts** tab (for example, to provide seamless access to a third-party DBMS).

c If you have configured client-side pooling, verify that PUBLIC is a designated puddle group.

5 Configure middle-tier properties applications to accept PUBLIC-only users.

a On the **Plug-ins** tab, navigate to **Application Management** ▶ **Configuration Manager**. Select **SAS Application Infrastructure**, and then select **SAS Studio Mid-Tier**.

Note: Not all deployments include and use all components in the SAS Application Infrastructure.

b For SAS Studio, set the **App.PublicIdAllowed** property to **true**. (This property is on the **Advanced** tab of the properties dialog box for SAS Studio Mid-Tier.)

Note: If the **App.PublicIdAllowed** property is not available, click **Add** to add it.

c In order for the changes to take effect, restart the SAS Web Infrastructure Services Application and then restart SAS Studio.

Managing Roles and Capabilities

The enterprise edition of SAS Studio has one role, SAS Studio: Usage, with one capability, Access SAS Studio. Users who are assigned to this role have access to SAS Studio. Administrators assign users to this role by using SAS Management Console.

By default, members of the SASUSERS group are assigned this role, so all SAS users at your site should have access to SAS Studio. If you remove this role from the SASUSERS group, you can assign this role to individual users or groups.

To add a user or group to a role:

1. Start SAS Management Console and connect as a SAS administrator (for example, sasadm@saspw).
2. Create a metadata account for the user in SAS Management Console and associate that account with the operating system account. For more information, see “Setting Up Users in the Metadata” on page 7.
3. In the User Manager, right-click the user and select **Properties**. The Properties dialog box appears.
4. Click the **Groups and Roles** tab.
5. Assign the user to the desired role.
6. Click **OK**.

Configuring the Mail Service for SAS Studio Mid-Tier

To use the e-mail functionality in SAS Studio, an SMTP server and the following information are required:

- the host name of the SMTP server for the outbound mail.
- the port for the SMTP server.
- the user name that accesses the SMTP server. This user name is not necessarily the person who is sending the mail.
- the password for the user name that accesses the SMTP server.

In SAS Studio Mid-Tier, the e-mail address of the sender is determined in either of these ways:

- If the user has an e-mail address in his metadata identity, SAS Studio Mid-Tier uses that e-mail address.
- If an e-mail address is not defined in the metadata, SAS Studio Mid-Tier uses the e-mail address that was defined during configuration.

About Locked-Down Functionality

You can limit the reach and activities of a SAS server by putting it in a locked-down state. When SAS Studio enables you to navigate the server file system, there is a limited view of the server file system when the server is in a locked-down state. SAS Studio does not require the addition of any paths to the lock-down path list.

For more information, see *SAS Intelligence Platform: Security Administration Guide*.

Log On to SAS Studio

1 Open a web browser to **http://*hostname*:*port*/SASStudio**. (To determine this URL, see the SAS Studio Mid-Tier section of the Instructions.html file.)

   The SAS Logon Manager appears.

2 Log on using the credentials for your operating system account. (The user ID for your operating system account matches the user ID in the metadata. For more information, see “Setting Up Users in the Metadata” on page 7.)

SAS Studio opens.

Working with the SAS Workspace Server

In your deployment of SAS Studio Mid-Tier, you can have multiple SAS Workspace Servers. Depending on where your content is saved, you might need to connect to a different SAS Workspace Server. Once you select a SAS Workspace Server, the selection persists, and this is your default SAS Workspace Server when you launch SAS Studio. By default, SAS Studio connects to the first available workspace server.

To access the content on a SAS Workspace Server, you must log on to the workspace server.

Note: If the workspace server is not in the same authentication domain as the metadata server, the logon for SAS Studio might not be valid for that workspace server. In this case, a logon with a user name and password must exist in the metadata for that user. The authentication domain of the logon must match the authentication domain of the workspace server. An example of when this might occur is when the middle tier and server tier are on two different operating environments, such as Windows and UNIX.

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SAS Studio Single-User

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Installation Process for SAS Studio Single-User

The single-user edition of SAS Studio is delivered with Base SAS on Windows operating environments. Installing the single-user edition does not require a planned deployment. You can install the single-user edition of SAS Studio by using the SAS Deployment Wizard.

How to Install SAS Studio Single-User

To install the single-user edition of SAS Studio:

1 Start the SAS Deployment Wizard from your SAS Software Depot.

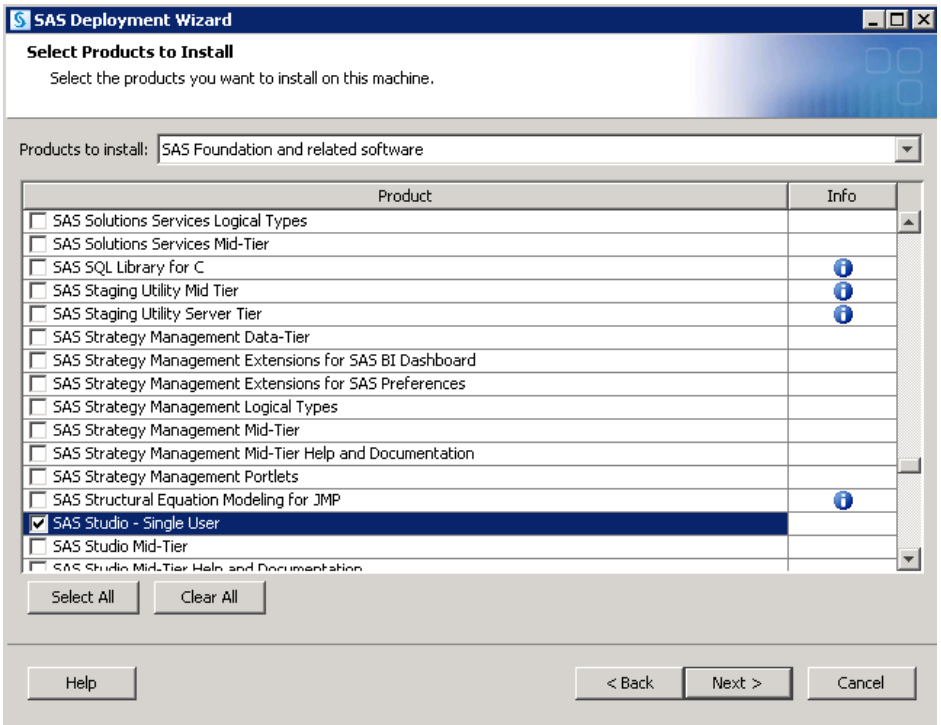
2 In the Choose Language dialog box, select the language for the SAS Deployment Wizard. Click **OK**.

3 In the Select Deployment Task step, select **Install SAS software**. Click **Next**.

4 In the Specify SAS Home step, select the `SASHome` directory. An example of this directory path is `C:\Program Files\SASHome`.

5 In the Select Products to Install step, verify that the **SAS Studio – Single User** check box is selected.

Click **Next**.



6 In the Specify SAS Installation Data File step, specify the full path for the SAS installation data file. Click **Next**.

7 In the Select Language Support step, select the languages for the products. Click **Next**.

8 In the Select Regional Settings step, click **Next**.

9 In the Select Authentication Type step, click **Next**.

10 In the Checking System step, click **Next** when the checking process is complete.

11 In the Deployment Summary step, click **Start**.

12 In the Deployment Complete step, click **Next**.

13 Carefully review the information in the Additional Resources step. Click **Finish** to close the SAS Deployment Wizard.

Starting SAS Studio

To start SAS Studio, select **Start** ▶ **Programs** ▶ **SAS** ▶ **SAS Studio 3.2 (*n*-bit)**. In this example, *n* is 32 or 64, depending on whether you have a 32-bit or 64-bit order.

The embedded SAS Web Application Server starts. (An icon appears in the Windows system tray.) Then your default web browser opens.

When you close the web browser, SAS Studio is still running because the embedded web application server is running. If you select **Start** ▶ **Programs** ▶ **SAS** ▶ **SAS Studio 3.2 (*n*-bit)** again, the default web browser opens. To shut down the embedded web application server, right-click in the system tray and select **Stop Server**.

Specifying the Web Browser to Use for SAS Studio

SAS Studio opens in the default browser for the local computer. You can specify an alternate browser for each user or for the entire machine.

To specify an alternate browser for a user:

1. In the **%userprofile%\.sasstudiohost_3.2** directory, create a file called **config.properties**.
2. In the **config.properties** file, set the BROWSERPATH property. Here is an example that uses Mozilla Firefox: `browserpath=C:\\Program Files (x86)\\Mozilla Firefox\\firefox.exe`
3. Save the **config.properties** file.

To specify an alternate browser for the local computer:

1. In the installation directory for SAS Studio (for example, **C:\Program Files\SASHome\SASStudioSingleUser\3.2**), open the **jvmoptions.cfg** file.
2. Add the `-D` option to set the browser path. In this example, the browser path is set for Microsoft Internet Explorer: `-Dbrowserpath=C:\Program Files\Internet Explorer\iexplore.exe`.
3. Save the **jvmoptions.cfg** file.

Uninstall SAS Studio Single-User

1. To start the SAS Deployment Manager, select **Start** ▶ **Programs** ▶ **SAS** ▶ **SAS Deployment Manager**.
2. In the Select SAS Deployment Manager Task step, select **Uninstall SAS Software**.
3. In the Select SAS Products to Uninstall step, verify that all products are selected.
4. Complete the remaining steps in the SAS Deployment Manager and click **Finish**.

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SAS Studio Basic

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Installation and Configuration Process for SAS Studio Basic

The basic edition of SAS Studio supports only UNIX operating environments. Unlike the enterprise edition, installing the basic edition does not require a deployment plan. However, before you can install the SAS Studio Basic edition, you must complete several prerequisite steps, such as selecting the directory for SASHome and the SAS Software Depot. You should install SAS Studio Basic by using the SAS installer account.

Specify a Location for SAS Home and the Configuration Directory

1. Run **`mkdir`** ***`directory-path`*** to create a parent directory for SASHome and a configuration directory. An example of a *directory-path* is **`/opt/sas`**, so the resulting subdirectories are **`/opt/sas/SASHome`** and **`/opt/sas/studioconfig`**.

2. Run **`chown`** ***`user-IDdirectory-path`*** to change the owner of these directories. The *user-ID* is the user ID that is used to complete the installations. An example of a *user ID* is **`sas`**.

How to Install and Configure SAS Studio Basic

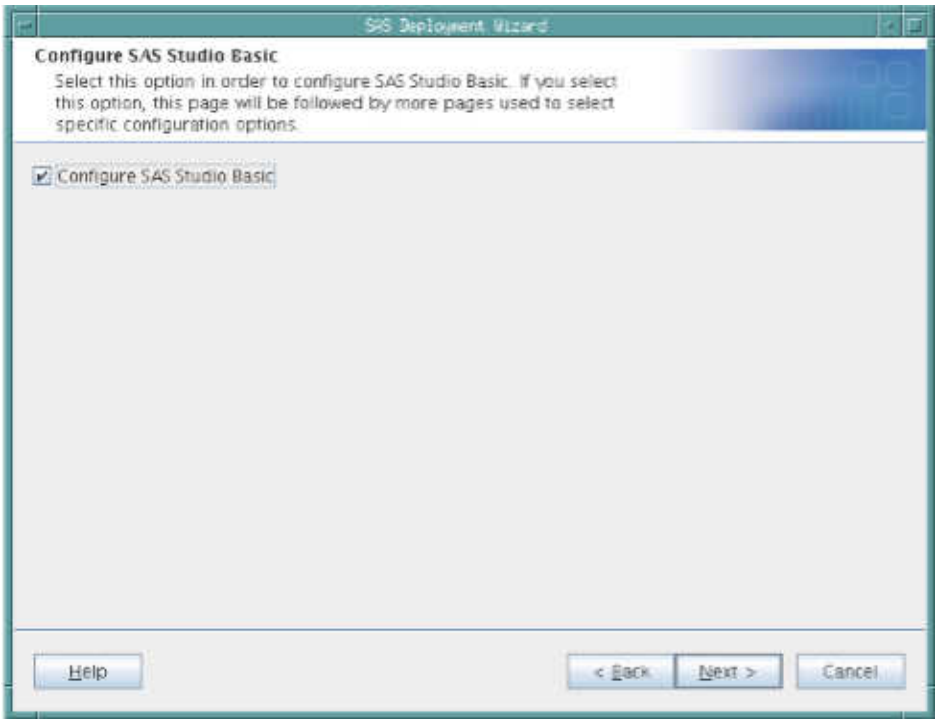
Without a Deployment Plan

A deployment plan is not required to install and configure SAS Studio Basic.

To install and configure the basic edition of SAS Studio:

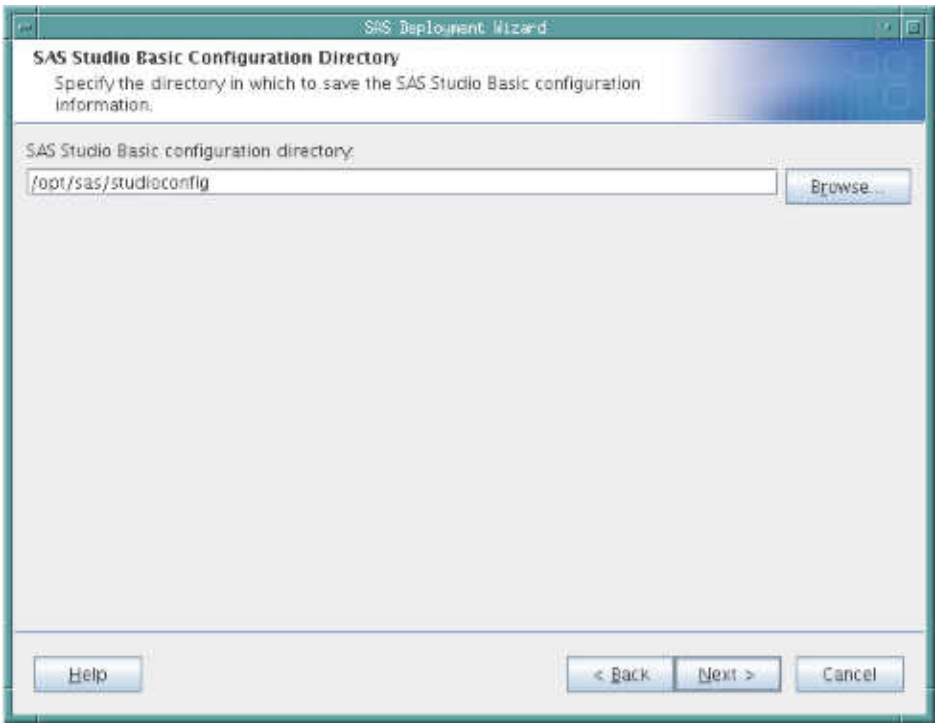
1. To start the SAS Deployment Wizard from your SAS Software Depot, run `setup.sh` at the command prompt.
2. In the Choose Language dialog box, select the language for the SAS Deployment Wizard. Click **OK**.
3. In the Select Deployment Task step, select **Install SAS Software**. Click **Next**.
4. In the Specify SAS Home step, select the **SASHome** directory. An example of this directory path is ***SAS-installation-directory*/SASHome**.
5. In the Select Products to Install step, verify that the **SAS Foundation** check box is selected.

   Click **Next**.
6. In the Select SAS Foundation Products step, verify that all products are selected and click **Next**.
7. In the Specify SAS Installation Data File step, specify the full path for the SAS installation data file. Click **Next**.
8. In the Select Language Support step, select the languages for the products. Click **Next**.
9. In the Select Regional Settings step, click **Next**.
10. In the Select Authentication Type step, click **Next**.
11. In the Configure SAS Studio Basic step, specify whether to configure SAS Studio Basic. Click **Next**.

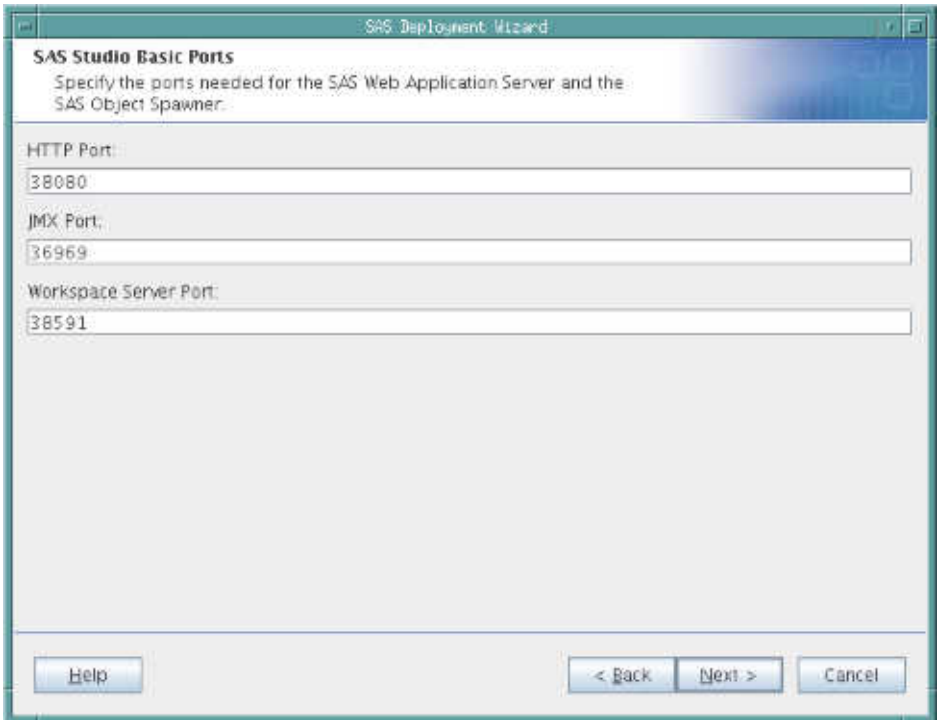


12 In the SAS Studio Basic Configuration Directory step, specify the directory to use for the configuration information for the SAS Studio Basic edition.

Note: This step is available only if you selected the **Configure SAS Studio Basic** check box in the previous step.



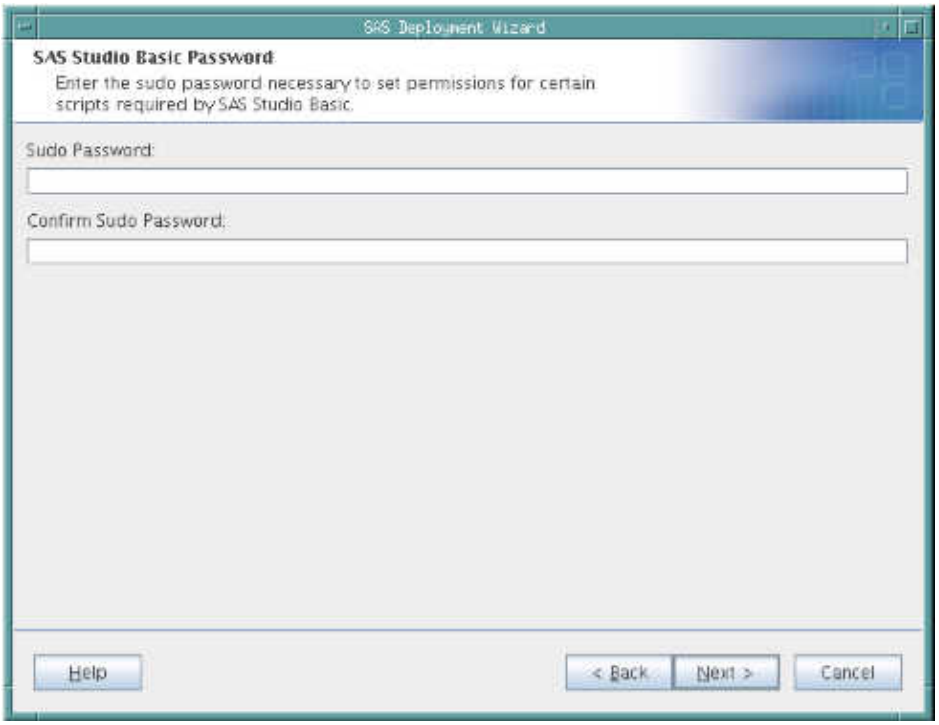
13 In the SAS Studio Basic Ports step, specify the ports for the SAS Web Application Server and the SAS Object Spawner. Typically, these port numbers are prefixed with the number 3.



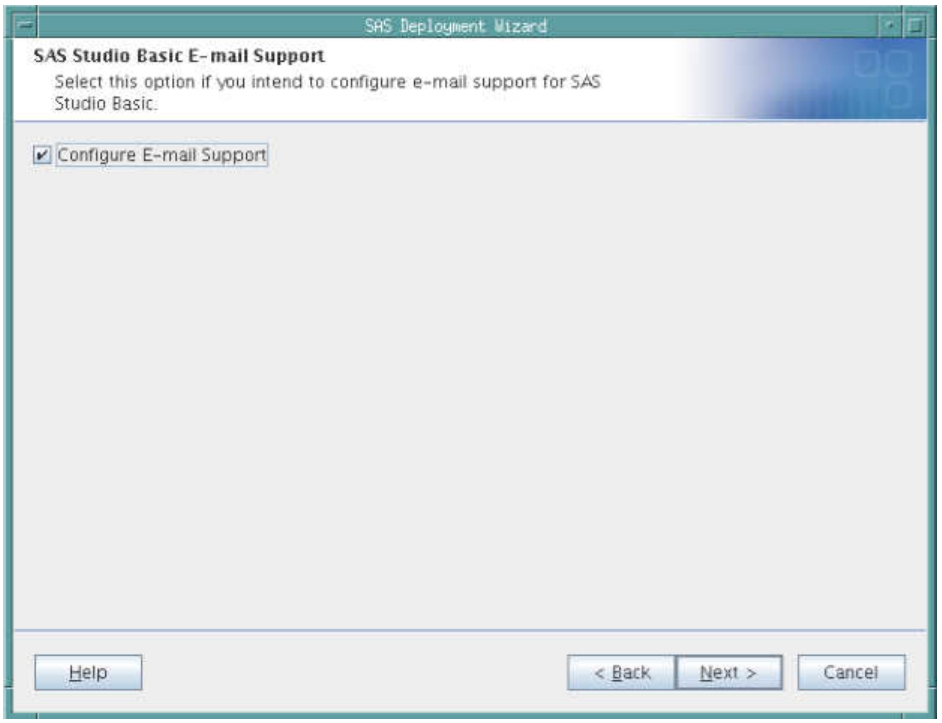
14 In the SAS Studio Basic Password Option step, specify whether you want to provide a sudo password. Providing a sudo password sets permissions on scripts that automatically start the services required by SAS Studio Basic.

15 In the SAS Studio Basic Password step, specify the sudo password.

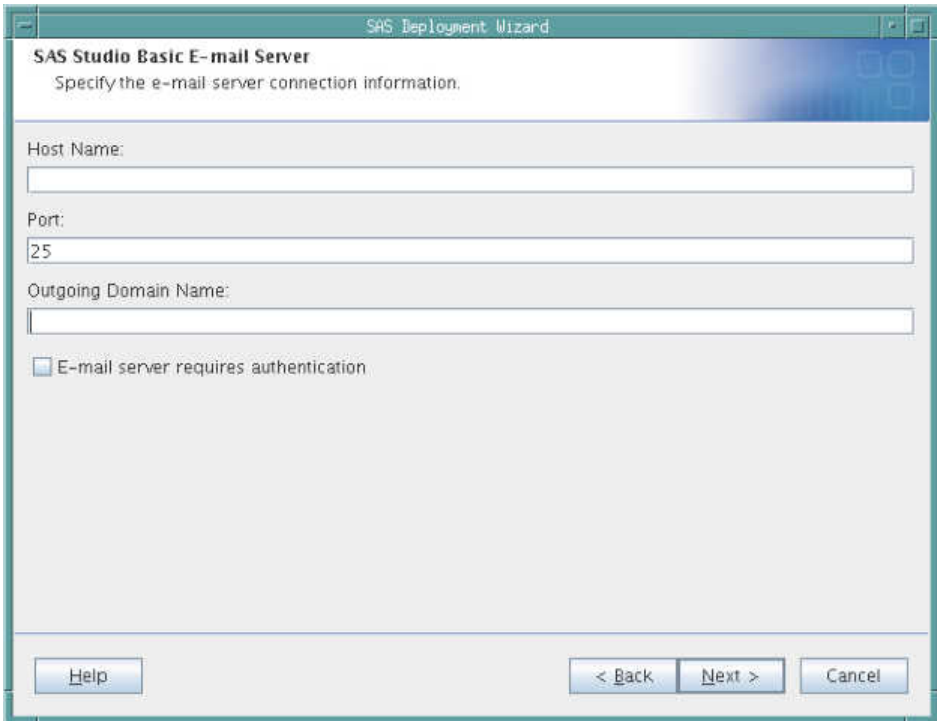
Note: This step is available only if you selected the **Provide password** check box in the previous step.



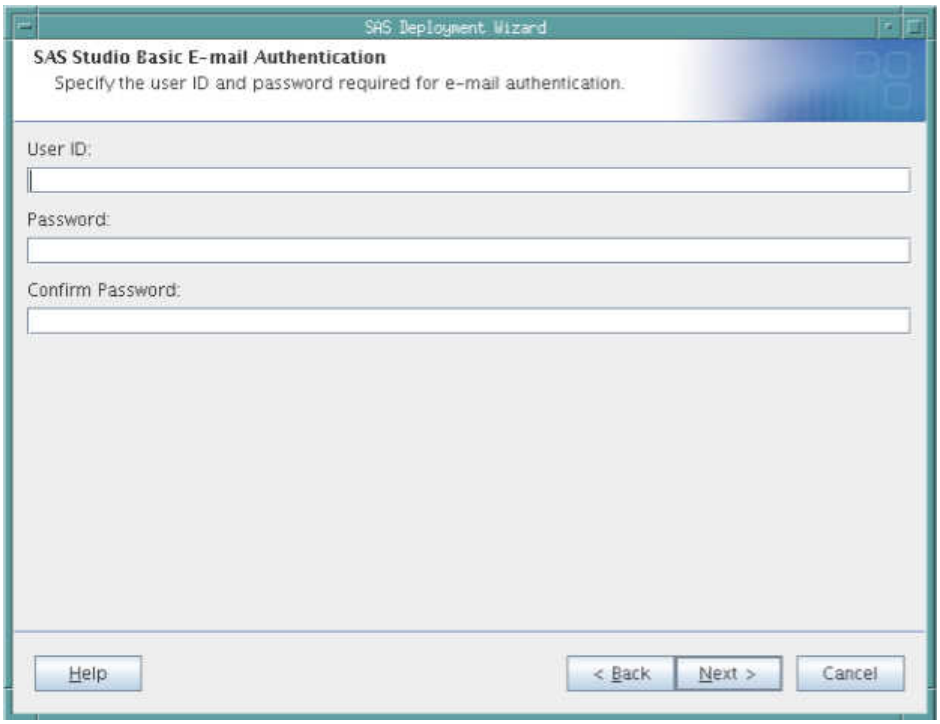
16 In the SAS Studio Basic E-mail Support step, specify whether you intend to configure e-mail support at this time.



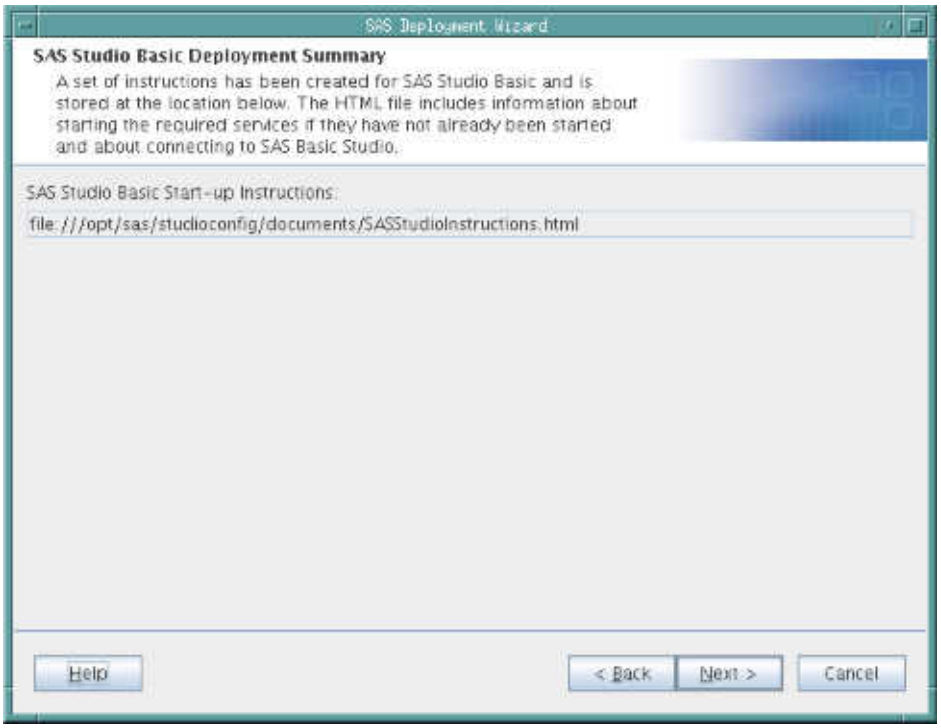
17 In the SAS Studio Basic E-mail Server step, specify the connection information for the e-mail server.



18 In the SAS Studio Basic E-mail Authentication step, specify the user ID and password required for authentication.



19 In the SAS Studio Basic Deployment Summary step, review the location of the SASStudioInstructions.html file. This file contains the start-up command for services (such as the SAS Object Spawner and the SAS Web Application) and the URL to use to open SAS Studio. By saving this information to an external file, you have access to this information after SAS Studio is installed. The path in this field was determined by the SAS Deployment Wizard based on your responses in previous steps.



20 In the Checking System step, click **Next** when the checking process is complete.

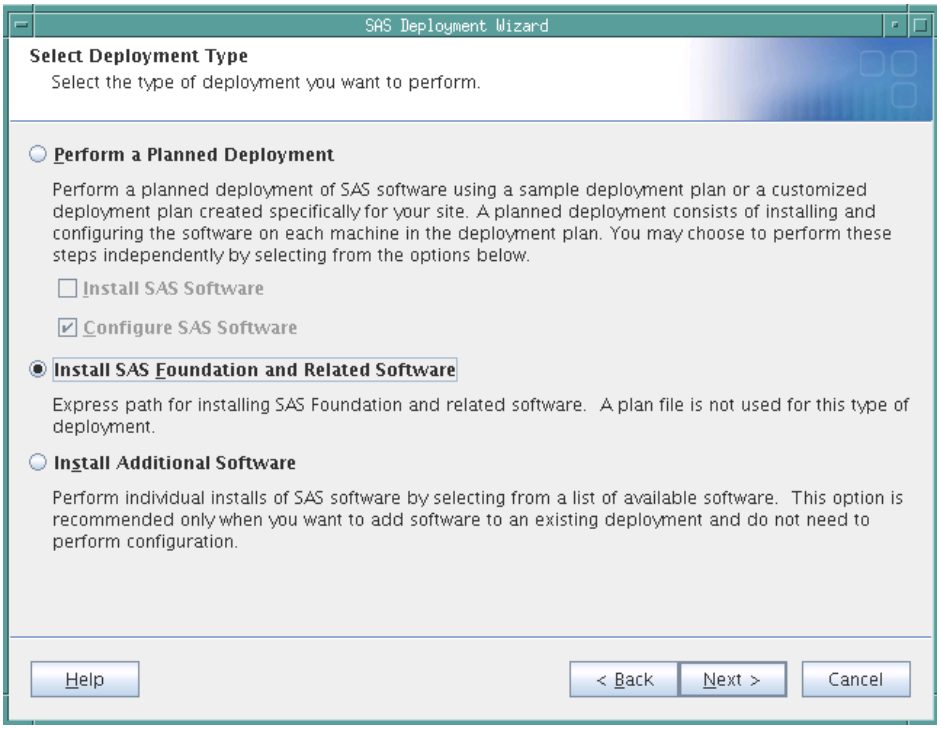
21 In the Deployment Summary step, click **Start**.

22 In the Deployment Complete step, click **Next**.

23 Carefully review the information in the Additional Resources step. When finished, click **Finish** to close the SAS Deployment Wizard.

Using a Deployment Plan

When you install your SAS software by using a deployment plan, SAS Studio Basic is installed but not configured. To configure the SAS Studio Basic edition, you must run the SAS Deployment Wizard a second time. In the Select Deployment Type step, you can choose whether to install SAS Foundation and related software or to install additional software.



Here are the steps that you would follow for each deployment type:

Install SAS Foundation and Related Software

After you select **Install SAS Foundation and Related Software** in the Select Deployment Type step, click **Next**. In the Select SAS Foundation Products step, verify that the **Base SAS** check box is selected, and then click **Next**.

As you continue through the SAS Deployment Wizard, you see the Configure SAS Studio Basic step. To configure SAS Studio Basic, select the **Configure SAS Studio Basic** check box. Click **Next**.

Install Additional Software

After you select **Install Additional Software** in the Select Deployment Type step, click **Next**. In the Select Products to Install step, select **SAS Foundation**.

As you continue through the SAS Deployment Wizard, you see the Configure SAS Studio Basic step. To configure SAS Studio Basic, select the **Configure SAS Studio Basic** check box. Click **Next**.

The configuration steps for SAS Studio Basic are the same regardless of whether you are using a deployment plan. To complete these configuration steps, start with step 12 in the instructions for installing SAS Studio Basic without a deployment plan.

Configuring User Authentication

Some SAS products include functionality that requires SAS to check user authentication and file access authorization. As a result, some files in your SAS installation must have setuid permissions and be owned by root. To set up the utilities that the spawner uses and to complete your deployment, run **`SASHome/SASFoundation/9.4/utilities/bin/setuid.sh`** as root. If you do not run this script, the setuid permissions are incorrect, and SAS Studio cannot spawn workspaces.

For more information, see the “Post-Installation Configuration for User Authentication and Identification” chapter in **`Configuration Guide for SAS Foundation for UNIX Environments`**.

Starting and Stopping the SAS Object Spawner and the SAS Web Application Server

Before you can open SAS Studio, you must start the SAS Object Spawner and the SAS Web Application Server. You then need to stop these services before you re-install, upgrade, or reconfigure SAS Studio.

The scripts that you use to re-install, upgrade, or reconfigure are located in the configuration directory that you specified when you installed the SAS Studio Basic edition. For example, to run the script that stops all services, enter *`SAS-configuration-directory`*`/sasstudio.sh stop`.

You can use these commands:

Command	Description
`sasstudio start`	starts all services.
`sasstudio stop`	stops all services.
`sasstudio status`	shows the status of the services.
`sasstudio restart`	restarts the services.

You can also start, stop, or restart only the SAS Object Spawner or only the SAS Web Application Server. Examples of these commands are `sasstudio stop webapp` and `sasstudio restart spawner.`

Configuring the Mail Service for SAS Studio Basic

To use the e-mail functionality in SAS Studio, an SMTP server and the following information are required:

- the host name of the SMTP server for the outbound mail.
- the port for the SMTP server.
- the user name that accesses the SMTP server. This user name is not necessarily the person who is sending the mail.
- the password for the user name that accesses the SMTP server.

When you install SAS Studio, the SAS Deployment Wizard prompts you for this information. The SAS Deployment Wizard uses these values for the mail configuration properties in the start-up scripts.

Here is an example:

```
#--- outgoing mail server properties
```

```
webdms.SMTP.hostName=mailhost.fyi.sas.com
webdms.SMTP.port=25
webdms.SMTP.user=site.administrator@your-company.com
webdms.SMTP.password=yourPassword

#-- domain for sender address
webdms.domain=your-company.com
```

When sending e-mails, the sender address is derived from the user name that logged on to SAS Studio and the value of the `webdms.domain` property in the config.properties file. For example, if the user name is test, the sender address is **`test@your-company.com`**.

Customizing the SAS Workspace Server

To customize umask or ulimit values for sessions that are created by the SAS Workspace Server, edit the **`workspaceserver/workspaceserver_usermods.sh`** file in the configuration directory for SAS Studio. For more information, see **SAS Note 38040**.

Enabling the X Commands

By default, the X commands are disabled. To enable these commands, edit the **`spawner/spawner_usermods.sh`** file and specify the following command for the USERMODS variable:

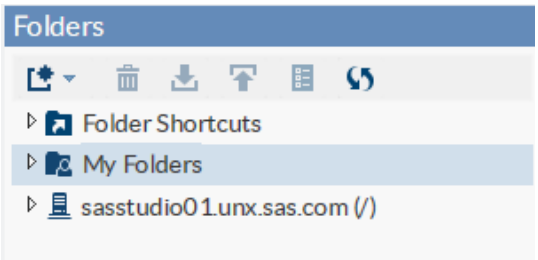
```
USERMODS="$JREOPTIONS -allowxcmd"
```

For more information, see **SAS Note 15179**.

Accessing the Root Level Folder from SAS Studio

By default, you can access the root level folder from the **Folders** section in SAS Studio.

In this example, the root level folder is sasstudio01.unx.sas.com.



To remove the root level folder from this section, open your config.properties file and change the setting of the `webdms.showUnixRoot` property to false.

Accessing Libraries

To make a library available to all users, add a LIBNAME statement to the **`workspaceserver/autoexec_usermods.sas`** file.

Log On to SAS Studio

After you have started the SAS Object Spawner and the SAS Web Application Server, you can open SAS Studio from a URL with this format: **`http://`*`hostname`*`:`*`port`*`/SASStudio`**.

If you do not know this URL, see the SASStudioInstructions.html file in your configuration directory.

Viewing the Logs for the SAS Object Spawner and the SAS Web Application Server

The logs for the SAS Object Spawner and the SAS Web Application Server are saved in the configuration directory.

- SAS Object Spawner: ***configuration-directory*/spawner/logs**
- SAS Web Application Server: ***configuration-directory*/appserver/studio/logs**

Uninstall the SAS Studio Basic Edition

1. To stop all services, run ***SAS-configuration-directory*/sasstudio.sh stop** at the command prompt.
2. To start the SAS Deployment Manager, run **SASHome/SASDeploymentManager/9.4/sasadm.sh** at the command prompt.
3. In the Select SAS Deployment Manager Task step, select **Uninstall SAS Software**.
4. In the Select SAS Products to Uninstall step, verify that all products are selected.
5. Complete the remaining steps in the SAS Deployment Manager and click **Finish**.
6. To clean up all files in the SASHome directory, enter **rm –rf *SASHome*** at the command prompt. Alternatively, you can remove only the contents of this directory and leave the directory in place.
7. To clean up all files in the configuration directory, enter **rm –rf *configuration-directory*** at the command prompt. Alternatively, you can remove only the contents of this directory and leave the directory in place.

Appendix 1

Troubleshooting Tips

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Session Time-outs

My session timed out unexpectedly.

The default time-out for SAS Studio depends on the edition.

- The default time-out for SAS Studio Mid-Tier is set by the SAS Web Infrastructure Platform.
- The default time-out for SAS Studio Single-User is one hour.
- The default time-out for SAS Studio Basic is one hour.

In the single edition and the basic edition, users of SAS Studio can use the **Time-out interval in hours** option to change the default time-out value. For more information, see *SAS Studio: User's Guide*.

SAS Studio E-Mails

I don’t receive any e-mails sent by SAS Studio.

For many e-mail providers, e-mails from SAS Studio might be flagged as junk mail. To receive SAS Studio e-mails in your inbox, add the e-mail domain for SAS Studio to your configuration file or add SAS Studio to your list of contacts.

Using File Transfer Protocol (FTP)

I cannot use the FTP functionality in SAS Studio.

When using FTP, note these limitations:

- SAS Studio supports only FTP servers that use a UNIX style directory listing.
- In SAS Studio, filenames in Asian languages are not supported on the FTP servers.