



User's Guide for SAS[®] Software Navigator



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User's Guide for SAS® Software Navigator Title
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Table of Contents

Chapter 1 – Introduction	1
Definition of Terms	1
Software Order E-mail	1
SAS Installation Data	1
Deployment Plan	1
SAS Software Depot	1
Project Directory	2
Installation Options.....	2
Creating a SAS Software Depot	2
Installing and Configuring SAS Software	2
Personal.....	2
Advanced.....	2
Software Index.....	2
Keystroke Commands	3
Chapter 2 – Creating a SAS Software Depot	5
Chapter 3 – Using the Personal Deployment	11
Chapter 4 – Using the Advanced Deployment.....	27
Chapter 5 – Using the Software Index.....	43
Set the Default Install Path	52
Find a Product or Specific Text	52
Preferences	53
Printing	54
Chapter 6 – Troubleshooting Your SAS Software Navigator Installation	55
Installing and Running the SAS Software Navigator.....	55
Glossary	59

Chapter 1 – Introduction

Used in its most basic mode, the SAS Software Navigator is a tool for use in the installation of SAS software provided on CD-ROM media. However, when the SAS Software Navigator is exercised to its full capability, it provides a broad range of deployment opportunities, from installing software on a single machine to installing on many machines across several tiers, either silently or interactively. This User's Guide will describe how the SAS Software Navigator can best be used to match your deployment needs.

Definition of Terms

As the installation process for SAS software has matured, we have introduced several new ideas in order to facilitate our advances. Before we can adequately describe the various methods by which you may deploy your software, it is important that some of those terms be defined. This section defines the new terms key to using the SAS Software Navigator, but not all the new terms associated with SAS 9.1.3.

Software Order E-mail

The *Software Order E-mail* contains important information about the SAS Software Package that is shipped to you and instructions for preparing to install your software. The most important information it contains is your SAS Installation Data (see below). The Software Order E-mail is sent to the SAS Installation Representative at the time the SAS Software Package is shipped.

SAS Installation Data

SAS Installation Data (contained in the text file attached to your Software Order E-mail) consists of customized installation information and product authorization information. The SAS Software Navigator uses the installation information in SAS installation Data to install your licensed software and apply customized product authorization information to your system. The file is named something like `sas91_XXXXXX.txt`, where `XXXXXX` is your order number.

If at any time you cannot find your Software Order E-mail or SAS Installation Data, you should go to the Web site <http://support.sas.com/adminservices-SID> to have your Software Order E-mail re-sent to the SAS Installation Representative at your site.

Deployment Plan

A *deployment plan* is a pre-selection of the software that will be installed by the SAS Software Navigator. It contains a description of what the plan deploys, identifies the target machines, and lists the software to be installed and configured. It is an XML file and is often named `plan.xml`.

The SAS Software Navigator contains a set of standard deployment plans that may be used with little customization. You also have the opportunity to create customized deployment plans for your specific installation requirements.

SAS Software Depot

The *SAS Software Depot* is a centralized copy of your installation media loaded onto a network drive. The SAS Software Navigator can invoke a process that will automatically create a SAS Software Depot from the installation media contained in your Installation Kit. Please note that the SAS Software Depot cannot be deployed onto OpenVMS Alpha systems.

Project Directory

SAS recommends that you keep your SAS Installation Data and any customized deployment plans in a common location, referred to as the *Project Directory*.

Installation Options

The SAS Software Navigator assists you in two basic tasks, creating a SAS Software Depot and installing your software according to your needs. These tasks are described below in more detail so that you may decide how best to use your SAS Software Navigator.

Note: *Elements of SAS require access to the SAS Web site and third-party Web sites. Contact your sys admin to ensure that your Web browser is configured to access external sites.*

Creating a SAS Software Depot

As noted above, the SAS Software Depot is a centralized copy of your installation media loaded onto a network drive. Since your installation media may consist of a large number of CDs to be deployed on several machines, the SAS Software Depot creates a centralized point from which any machine connected to your network may receive its new software without the need to transport media and documentation from room to room or site to site.

The SAS Software Depot is described in Chapter 2 below.

Note: *The SAS Software Depot cannot be deployed onto an OpenVMS Alpha system.*

Installing and Configuring SAS Software

The SAS Software Navigator provides three paths for your deployment to take: Personal, Advanced, and Software Index. These are described in more detail below.

Personal

A *Personal* deployment enables you to install and configure SAS software on a single machine. You can choose a standard deployment plan that matches your SAS Installation Data. You have limited choices for customization when you choose this type of deployment.

The Personal installation is described in Chapter 3, "Using the Personal Deployment", on page 11.

Advanced

An *Advanced* deployment enables you to install and configure SAS software on a single machine or as part of a multiple-machine deployment. You can choose a standard deployment plan that matches your SAS Installation Data or choose a customized deployment plan made specifically for your site. This type of deployment offers you more choices for customization.

The Advanced installation is described in Chapter 4, "Using the Advanced Deployment" on page 27.

Software Index

Installation from the *software index* enables you to select and install SAS software of your choice from an index of software available at your site. This type of installation does not use a deployment plan and does not automatically configure the software you choose to install. Using the software index is recommended only when you want to add individual software products to an existing deployment.

The software index is described in Chapter 5, "Using the Software Index" on page 43.

Keystroke Commands

In addition to the point-and-click method of moving through the dialogs of the SAS Software Navigator, you can use the following keystrokes:

- **Tab** moves the focus to the next control, but not out of a table.
- **Ctrl+Tab** moves the focus to the next control, including out of a table.
- **Shift+Tab** moves the focus to the previous control, but not out of a table.
- **Arrows** move within a drop-down list box or table, including left and right in a table.
- **Space** or **Enter** selects the highlighted option.
- **F1** opens the Help topic for the dialog you are currently in.
- **Alt+F4** exits the Help dialog.

Chapter 2 – Creating a SAS Software Depot

Note: Before you begin the installation process, be sure to consult the **Alert Notes** for any pertinent information. To see the Alert Notes, open either the Install Center or the **Documentation for Installing and Configuring SAS CD**, and select “Basic Installation Edition Kit.” In the “Pre-Installation” section under “Alert Notes,” select the Alert Notes link for your operating system.

The SAS Software Depot is a centralized copy of your installation media loaded onto a network drive. Since your installation media may consist of a large number of CDs to be deployed on several machines, the SAS Software Depot creates a centralized point from which any machine connected to your network may receive its new software without the need to transport media and documentation from room to room or site to site.

Note: Most of the dialogs used by the SAS Software Navigator have a **Help** button in the bottom left corner. You may click the **Help** button at any time to learn more about the choices presented by the dialog you are in.

Complete the following steps to create a SAS Software Depot:

1. Log in to the machine on which you will be installing software as the *sas* user (Windows users should log in as any member of the Administrators group). The *sas* account is used to perform all your installs from and allows consistent ownership and file permissions to be maintained. Refer to Part 2, “Installation and Initial Configuration” in the *SAS Intelligence Platform: Installation Guide* for more information about the *sas* user ID. You can download a copy of this document from <http://support.sas.com/documentation/configuration/913admin.html>.
2. The SAS Software Navigator loads and runs in temporary space. Prior to loading, the SAS Software Navigator searches your system for a SAS Private Java Runtime Environment (JRE) from which to run. If a SAS Private JRE is found, the SAS Software Navigator will use it, reducing the amount of temporary space required. If a suitable JRE is not found, the SAS Software Navigator will load a copy into temporary space.

Check the table below for the system you are running the SAS Software Navigator on to help determine if you have adequate free temporary space to execute. The space estimates in the table include loading a JRE to temporary space. You can reduce the estimated temporary space requirements if you install a SAS Private JRE prior creating a SAS Software Depot.

Operating System	Temporary space required
AIX	337 free MB in /tmp
HP-UX Itanium	479 free MB in /tmp
HP-UX	571 free MB in /tmp
Linux for Intel Architecture	259 free MB in /tmp
Linux for Itanium-based Systems	281 free MB in /tmp
OpenVMS Alpha	450,000 free blocks in SYS\$UPDATE
Solaris	388 free MB in /tmp*
Solaris for x64	408 free MB in /tmp*
Tru64 UNIX	260 free MB in /tmp
Windows	400 free MB in TEMP

* On some Solaris and Solaris for x64 systems, /tmp and swap may be mapped to the same device, which means the amount of space in /tmp may vary widely based on the number and size of the currently running programs. As a result, the SAS Software Navigator may indicate you have inadequate space in /tmp. If this occurs, when prompted, specify an alternate location with adequate space on a device free of swap.

On UNIX, you can specify an alternate directory where temporary files are loaded. This is useful when the default directory for temporary files (typically /tmp or /usr/tmp) does not have adequate free space.

You can specify an alternate temporary directory in one of the following ways.

- Set the \$SSNTMPDIR environmental variable to the path of the alternate directory, for example:

```
$ export SSNTMPDIR=<path>
```

- Specify the `-ssntmpdir` command line flag to set the alternate directory when launching the SAS Software Navigator, for example:

```
$ setup.sh -ssntmpdir <path>
```

3. Insert the **SAS Software Navigator** CD and mount it using the procedures listed below for the appropriate operating system.

Note: All CDs should be run on a native machine. If you attempt to use a terminal emulator, the software may not function properly.

Windows

Once the SAS Software Navigator CD is inserted, it should begin to autoplay. If the autoplay does not start, **Windows** users should find `setup.exe` and open it.

UNIX Systems

On **UNIX**, the SAS Software Navigator CD will be automatically mounted if you are running an automount program, such as `vold` on Solaris. Otherwise you must manually mount the CD. Manually mounting a CD on UNIX requires root privilege. Log in as root before mounting the CD.

```
$ su root
```

On single-drive systems, CDs must be unmounted and mounted often. SAS recommends that you maintain a separate root user ID window for mounting and unmounting the CDs, while running the SAS Software Navigator in a different window.

The mount command on UNIX follows this format:

```
# mount [options] device mount_point
```

where `[options]` are valid mount options for the operating system, `device` is the name of the CD-ROM device, and `mount_point` is the directory used as the mount point for the media.

The following are sample mount commands for each supported UNIX system. The device names listed below are used only for example; substitute your actual device names accordingly. These instructions assume your mount point is `/mnt/cdrom`; however, you may choose another location.

AIX

```
# mount -r -v cdrfs /dev/cd0 /mnt/cdrom
```

HP-UX and HP-UX for the Itanium Processor Family

```
# mount -F cdfs -o rr,ro /dev/dsk/c0t0d0 /mnt/cdrom
```

Linux for Intel Architecture and Linux for Itanium-based Systems

```
# mount -r /dev/cd0 /mnt/cdrom
```

Note: *If you are installing Red Hat Enterprise Linux 3 Update 7 and later, Red Hat has made changes that interfere with the standard SAS installer operation. To work around those changes, add `noexec=off` as a kernel boot parameter. You may choose to do this in `grub/lilo`.*

Solaris and Solaris for x64

```
# mount -r -F hsfs /dev/cd0 /mnt/cdrom
```

Tru64 UNIX

```
# mount -rt cdfs -o noversion,rrip /dev/cd0 /mnt/cdrom
```

Remote Mounting

If your CD-ROM drive resides on another host, and is properly exported, mount the CD using NFS by issuing a command similar to the following:

```
# mount -o ro <remotehost>:/<cd-rom-dir> /mnt/cdrom
```

In this example, `<remotehost>` refers to the machine that owns the CD-ROM drive and `<cd-rom-dir>` is the actual mount point for the CD-ROM drive on the server.

Once mounted, launch the SAS Software Navigator with the command:

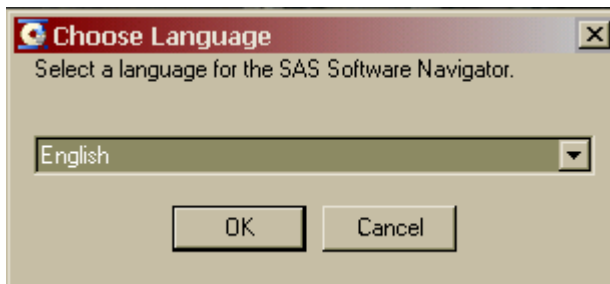
```
$ /mnt/cdrom/setup.sh
```

Note: When using a system with an automounter, it is common for a File Manager window to display when the media is inserted in the CD-ROM drive. Do not invoke the SAS Software Navigator via the File Manager since this will create a "Device busy" condition, preventing disk swapping later in the install process.

OpenVMS Alpha Systems

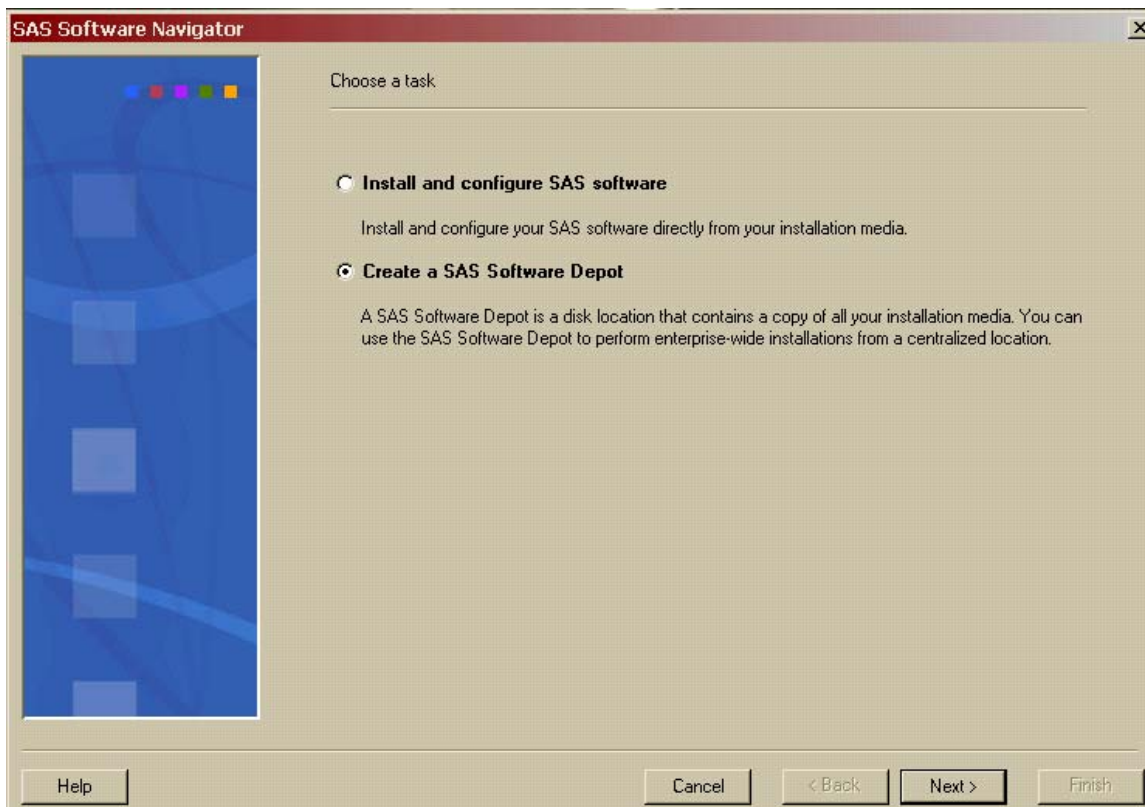
The SAS Software Depot cannot be deployed onto OpenVMS Alpha systems.

4. The entry point for the SAS Software Navigator is the **Choose Language** dialog. Select the language in which to run the SAS Software Navigator from, using the pull-down list. Click **OK**.

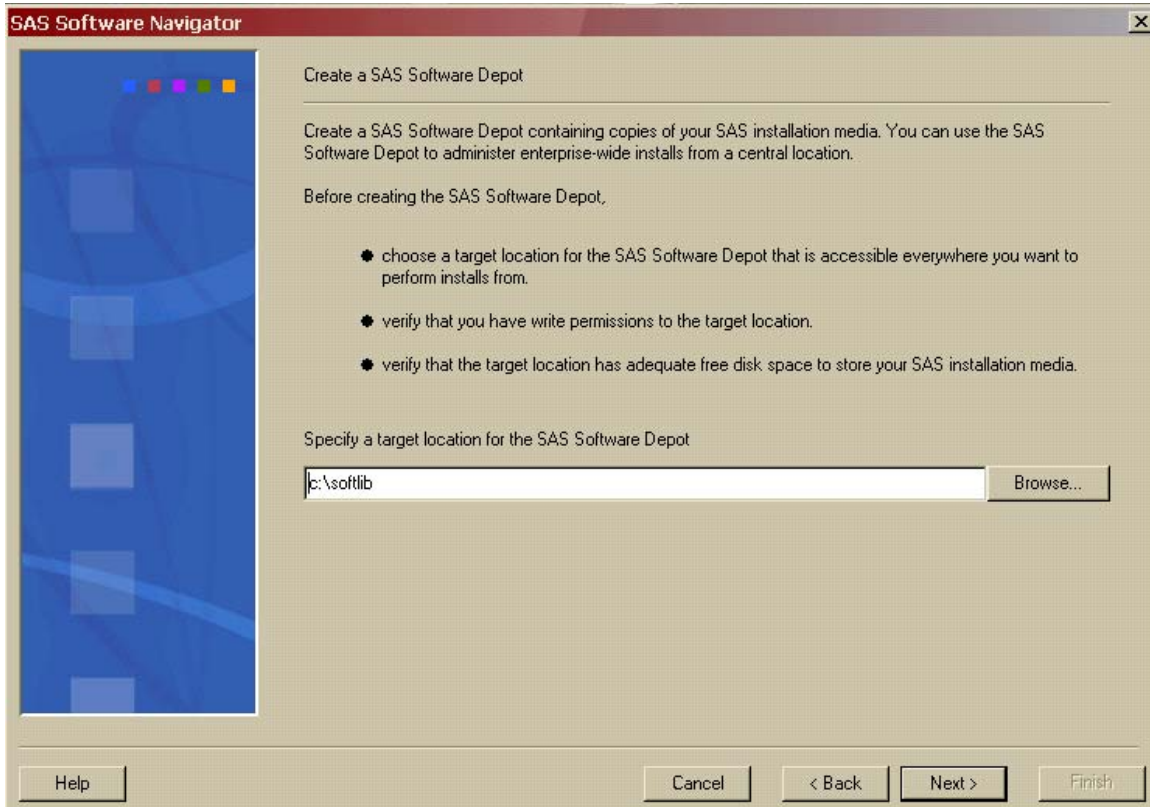


5. When run from the **SAS Software Navigator** CD, the SAS Software Navigator starts by opening with a choice of **Install and configure SAS software** or **Create a SAS Software Depot**. Select **Create a SAS Software Depot**, then click **Next**.

If you have already created a SAS Software Depot and wish to install and configure your software, you should exit the SAS Software Navigator and launch it directly from the SAS Software Depot.

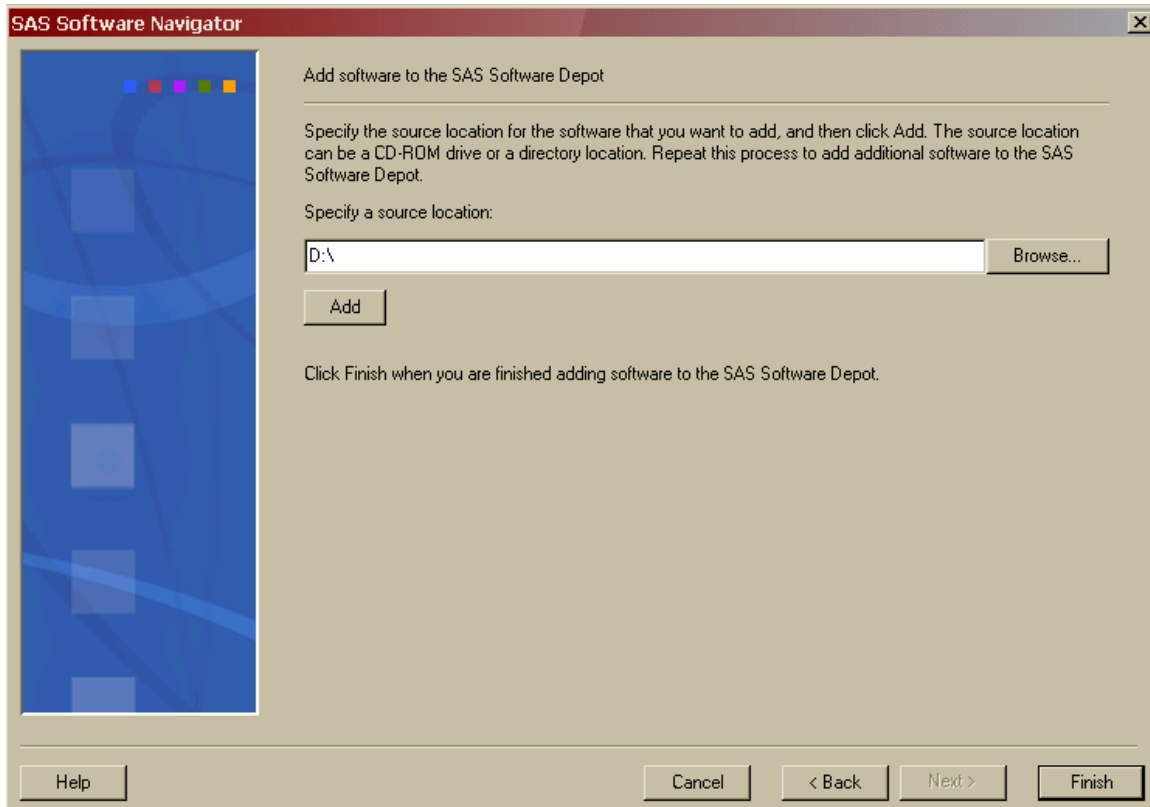


6. The **Create a SAS Software Depot** dialog opens. Enter the location where you would like to create the SAS Software Depot in the text box. You may also use the **Browse** button to search for a location to install the SAS Software Depot. When the location for your SAS Software Depot is entered into the text box, click **Next**.



7. After an Initialization progress bar records the progress of copying some common files for the SAS Software Depot, the **Add software to the SAS Software Depot** dialog opens. Enter the source, most often a CD-ROM drive, of the software you are adding to the SAS Software Depot. You may also use the **Browse** button to search for a location from which to copy. When you have entered the source of the software in the text box, click **Add**. A status dialog opens, reporting the status of the copying process. When that dialog closes, the software has been copied into the location you have described.

Repeat this step for all the pieces you wish to add to your SAS Software Depot. After all your software has been added, click **Finish**. Your SAS Software Depot has been created, and the SAS Software Navigator closes.



8. Once you have created your SAS Software Depot, SAS recommends that you restart the SAS Software Navigator from the network location and begin deploying your software using the procedures described in Chapters 3-5.

Chapter 3 – Using the Personal Deployment

Note: Before you begin the installation process, be sure to consult the **Alert Notes** for any pertinent information. To see the Alert Notes, open either the Install Center or the **Documentation for Installing and Configuring SAS CD**, and select “Basic Installation Edition Kit.” In the “Pre-Installation” section under “Alert Notes,” select the Alert Notes link for your operating system.

A *Personal* deployment enables you to install and configure SAS software on a single machine. You can choose a standard deployment plan that matches your SAS Installation Data. You have limited choices for customization when you choose this type of deployment.

Note: During the installation process, you will be asked to specify the location of your SAS Installation Data. For Windows, we strongly recommend that you specify this location using a mapped network drive. Under some circumstances, connecting directly via UNC paths can cause problems during your installation.

Note: Most of the dialogs used by the SAS Software Navigator have a **Help** button in the bottom left corner. You may click the **Help** button at any time to learn more about the choices presented by the window you are in.

Complete the following steps to perform a **Personal** deployment:

1. Log in to the machine on which you will be installing software as the *sas* user (Windows users should log in as any member of the Administrators group). The *sas* account is used to perform all your installs from and allows consistent ownership and file permissions to be maintained. Refer to Part 2, “Installation and Initial Configuration” in the *SAS Intelligence Platform: Installation Guide* for more information about the *sas* user ID. You can download a copy of this document from <http://support.sas.com/documentation/configuration/913admin.html>.
2. The SAS Software Navigator loads and runs in temporary space. Prior to loading, the SAS Software Navigator searches your system for a SAS Private Java Runtime Environment (JRE) from which to run. If a SAS Private JRE is found, the SAS Software Navigator will use it, reducing the amount of temporary space required. If a suitable JRE is not found, the SAS Software Navigator will load a copy into temporary space.

In addition, each install you run will also require the use of temporary space in which to execute (which varies per install). All the installs and the SAS Software Navigator will free this space upon exiting normally.

Check the table below for the system you are running the SAS Software Navigator on to help determine if you have adequate free temporary space to execute. The space estimates in the table include loading a JRE to temporary space. You can reduce the estimated temporary space requirements if you install a SAS Private JRE prior creating a SAS Software Depot.

Operating System	Temporary space required
AIX	337 free MB in /tmp
HP-UX Itanium	479 free MB in /tmp
HP-UX	571 free MB in /tmp
Linux for Intel Architecture	259 free MB in /tmp
Linux for Itanium-based Systems	281 free MB in /tmp
OpenVMS Alpha	450,000 free blocks in SYS\$UPDATE
Solaris	388 free MB in /tmp*
Solaris for x64	408 free MB in /tmp*
Tru64 UNIX	260 free MB in /tmp
Windows	400 free MB in TEMP

* On some Solaris and Solaris for x64 systems, /tmp and swap may be mapped to the same device, which means the amount of space in /tmp may vary widely based on the number and size of the currently running programs. As a result, the SAS Software Navigator may indicate you have inadequate space in /tmp. If this occurs, when prompted, specify an alternate location with adequate space on a device free of swap.

On UNIX, you can specify an alternate directory where temporary files are loaded. This is useful when the default directory for temporary files (typically /tmp or /usr/tmp) does not have adequate free space.

You can specify an alternate temporary directory in one of the following ways.

- Set the \$SSNTMPDIR environmental variable to the path of the alternate directory, for example:

```
$ export SSNTMPDIR=<path>
```

- Specify the -ssntmpdir command line flag to set the alternate directory when launching the SAS Software Navigator, for example:

```
$ setup.sh -ssntmpdir <path>
```

3. If you are running from a SAS Software Depot, you should skip to step 3b.
 - a. Insert the CD and mount it using the procedures listed below for the appropriate operating system.

Note: All CDs should be run on a native machine. If you attempt to use a terminal emulator, the software may not function properly.

Windows

Once the SAS Software Navigator CD is inserted, it should begin to autoplay. If the autoplay does not start, **Windows** users should find `setup.exe` and open it.

UNIX Systems

On **UNIX**, the SAS Software Navigator CD will be automatically mounted if you are running an automount program, such as `vold` on Solaris. Otherwise you must manually mount the CD. Manually mounting a CD on UNIX requires root privilege. Log in as root before mounting the CD.

```
$ su root
```

On single-drive systems, the CDs must be unmounted and mounted often. SAS recommends that you maintain a separate root user ID window for mounting and unmounting the CDs, while running the SAS Software Navigator in a different window.

The mount command on UNIX follows this format:

```
# mount [options] device mount_point
```

In this example, `[options]` are valid mount options for the operating system, `device` is the name of the CD-ROM device, and `mount_point` is the directory used as the mount point for the media.

The following are sample mount commands for each supported UNIX system. The device names listed below are used only for example; substitute your actual device names accordingly. These instructions assume your mount point is `/mnt/cdrom`; however, you may choose another location.

AIX

```
# mount -r -v cdrfs /dev/cd0 /mnt/cdrom
```

HP-UX and HP-UX for the Itanium Processor Family

```
# mount -F cdfs -o rr,ro /dev/dsk/c0t0d0 /mnt/cdrom
```

Linux for Intel Architecture and Linux for Itanium-based Systems

```
# mount -r /dev/cd0 /mnt/cdrom
```

Note: *If you are installing Red Hat Enterprise Linux 3 Update 7 and later, Red Hat has made changes that interfere with the standard SAS installer operation. To work around those changes, add `noexec=off` as a kernel boot parameter. You may choose to do this in `grub/lilo`.*

Solaris and Solaris for x64

```
# mount -r -F hsfs /dev/cd0 /mnt/cdrom
```

Tru64 UNIX

```
# mount -rt cdfs -o noversion,rrip /dev/cd0 /mnt/cdrom
```

Remote Mounting

If your CD-ROM drive resides on another host, and is properly exported, mount the CD using NFS by issuing a command similar to the following:

```
# mount -o ro <remotehost>:<cd-rom-dir> /mnt/cdrom
```

In this example, `<remotehost>` refers to the machine that owns the CD-ROM drive and `<cd-rom-dir>` is the actual mount point for the CD-ROM drive on the server.

Once mounted, launch the SAS Software Navigator with the command:

```
$ /mnt/cdrom/setup.sh
```

Note: When using a system with an automounter, it is common for a File Manager window to display when the media is inserted in the CD-ROM drive. Do not invoke the SAS Software Navigator via the File Manager since this will create a "Device busy" condition, preventing disk swapping later in the install process.

OpenVMS Alpha Systems

On **OpenVMS Alpha**, mount the SAS Software Navigator CD using the command

```
$ MOUNT/OVER=ID/MEDIA=CDROM/UNDEF=(STREAM_LF:0) cd-rom
```

In this example, *cd-rom* is the actual device name of your CD-ROM drive. Once mounted, launch the software with the command

```
$ MCR cd-rom:[000000] SETUP_VMS.EXE
```

where *cd-rom* is the actual device name of your CD-ROM drive.

- b. If you have created a SAS Software Depot and wish to launch the SAS Software Navigator from it, perform the steps appropriate for the platform you are using:

Windows

Go the network location where the SAS Software Depot is located, then double-click the *setup.exe* to start the SAS Software Navigator.

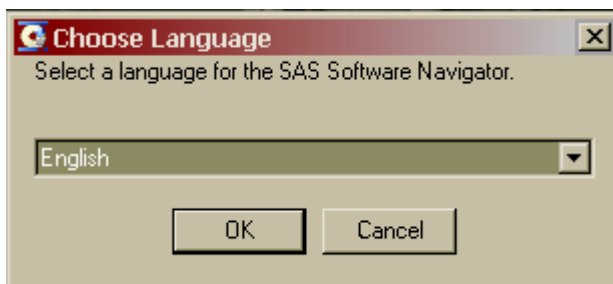
UNIX

Go the network location where the SAS Software Depot is located, then launch the SAS Software Navigator with *setup.sh* in that directory.

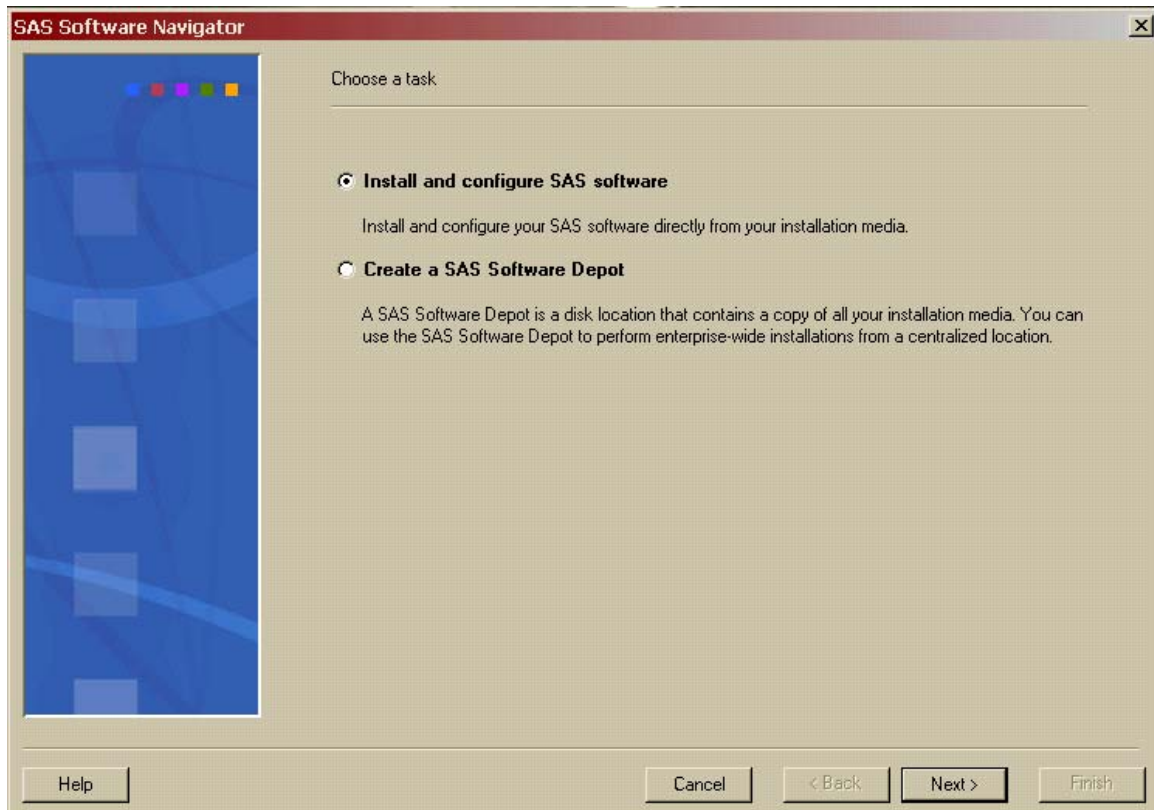
OpenVMS Alpha

Issue the command `$ MCR disk:[dir]SETUP_VMS.EXE`, where *disk* and *dir* are the network location of the SAS Software Depot.

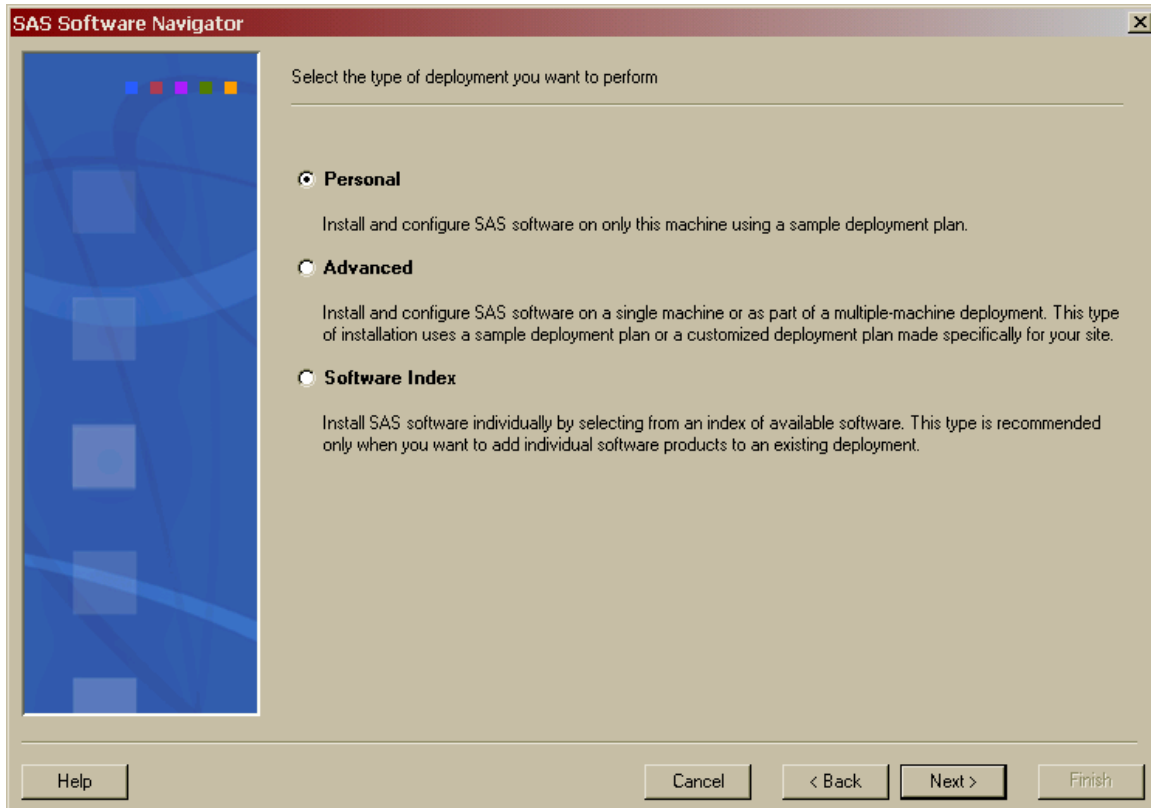
4. The entry point for the SAS Software Navigator is the **Choose Language** dialog. Select the language you wish to run the SAS Software Navigator from, using the pull-down list. Click **OK**.



5. After the SAS Software Navigator is loaded, it presents you with the choice of **Install and configure SAS software** or **Create a SAS Software Depot**. Select **Install and configure SAS software**, then click **Next**. If you have already created a SAS Software Depot and wish to install and configure your software, you should exit the SAS Software Navigator and launch it directly from the SAS Software Depot. This screen will not appear if you are running from a SAS Software Depot.

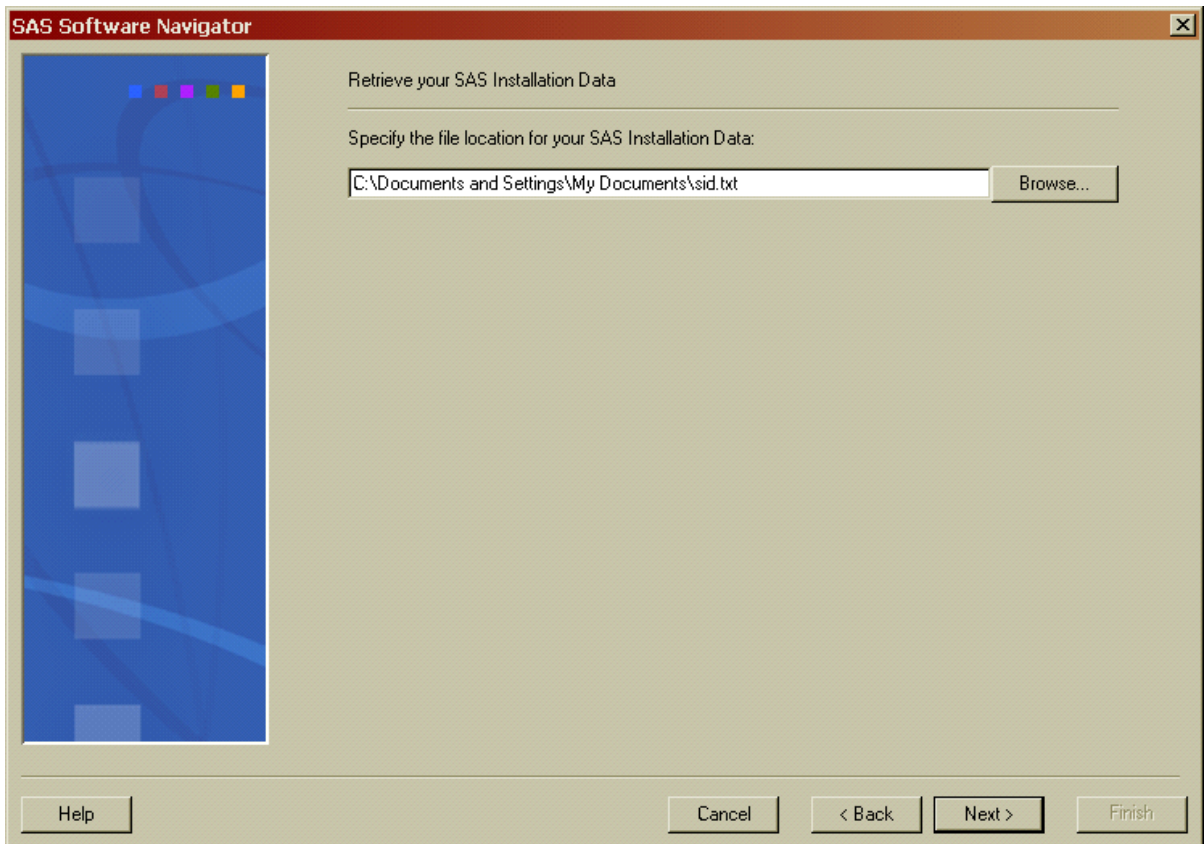


6. The **Select the type of deployment you want to perform** dialog opens. Select the **Personal** radio button and click **Next**.

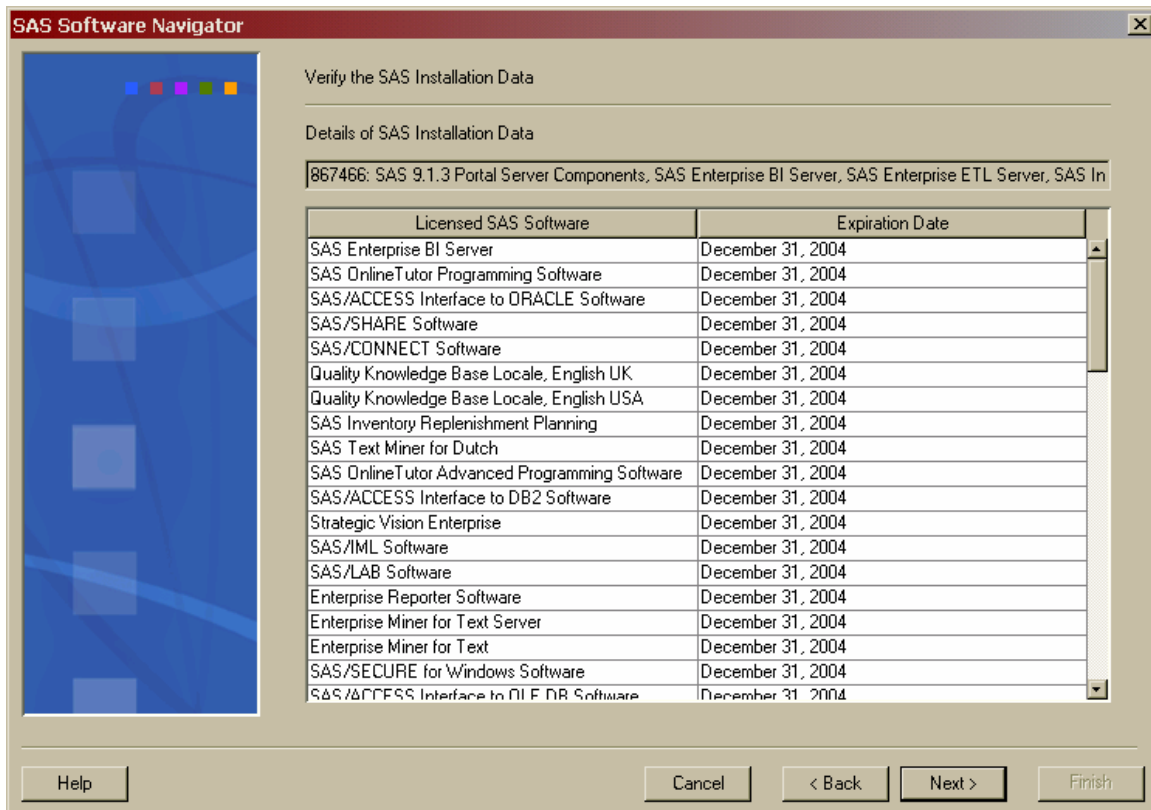


7. The **Retrieve your SAS Installation Data** dialog opens. In the text box, enter the location of your SAS Installation Data text file. You can also use the **Browse** button to search your system for the file. If you have retrieved your SAS Installation Data previously, the location you chose before will be the default location in the text box. Once the correct location has been entered into the text box, click **Next**.

If you cannot find your SAS Installation Data, you should go to the Web site <http://support.sas.com/adminservices-SID> to have your Software Order E-mail and its attached SAS Installation Data re-sent to the SAS Installation Representative at your site.

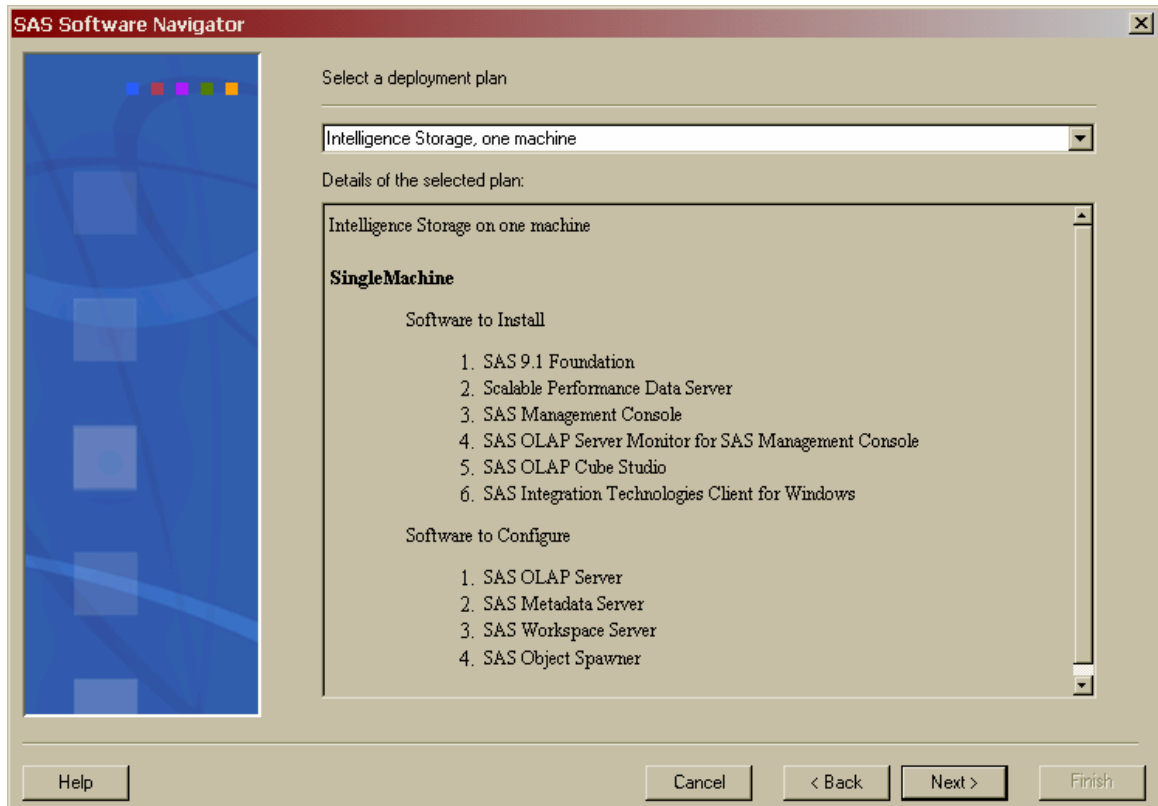


- The **Verify the SAS Installation Data** dialog opens. Review the SAS installation Data that you have retrieved to ensure you have the file you want. If you do not have the appropriate SAS Installation Data, click **Back**. If you have the SAS Installation Data you intend to use, click **Next**.



9. The **Select a deployment plan** dialog opens. The drop-down list provides you with sample plans for deploying your SAS software. When a plan is selected, a description of that plan is presented in the description field. Choose the plan you want and click **Next**.

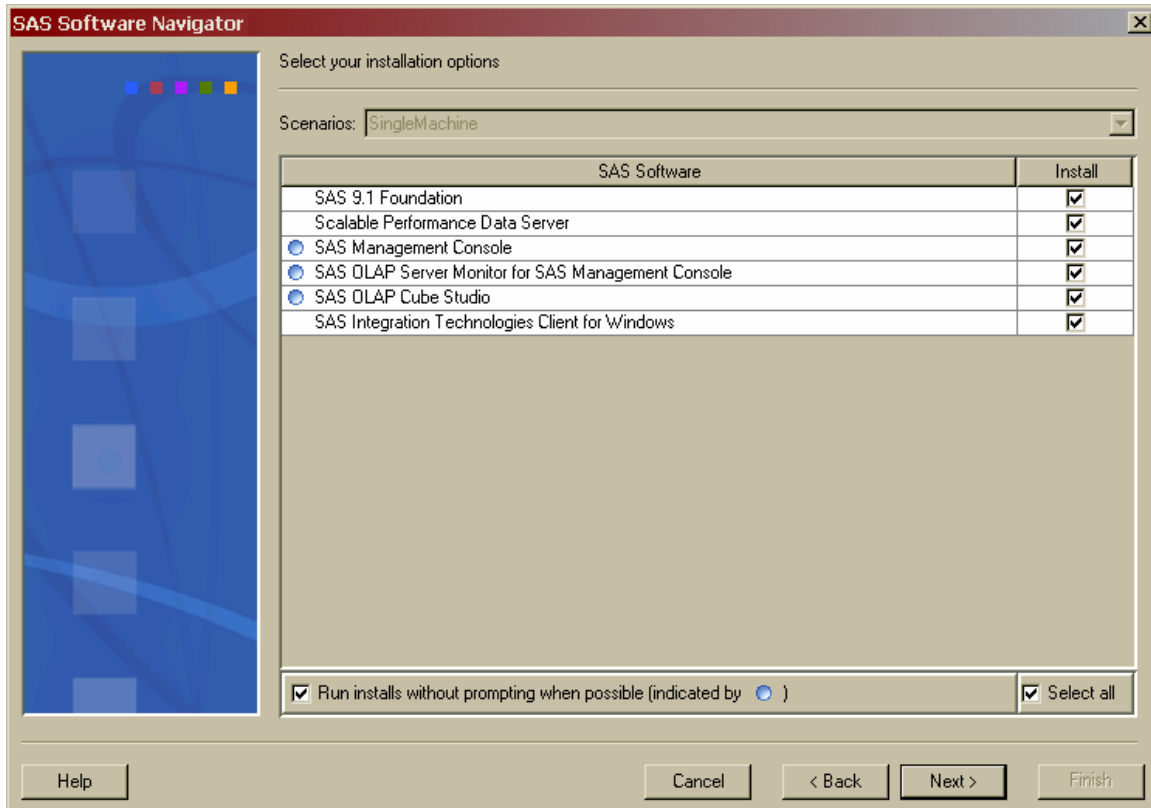
Note: *The sample plans represent the minimally required products to deploy the software, rather than the list of all the products that may be used with the software you've ordered. If you would like to deploy products not in the sample plan, SAS recommends installing the software in the sample plan first, then going to the Software Index to install any additional products.*



10. The **Select your installation options** dialog opens, providing a list of the software to be installed to your machine. A column of **Install** check boxes appears to the right of the Selected Software list. When a check box for a product is checked, that product will be installed when the SAS Software Navigator performs the installation process. You may deselect a product to remove it from the installation queue, though SAS recommends that you allow the software to be installed by the chosen deployment plan. Checking the **Select All** check box returns the installation queue to its default state of installing all the software listed.

Software with a blue circle to the left of its title may be installed without prompts as the SAS Software Navigator goes through the installation queue. To use this functionality, ensure the check box at the bottom of the SAS Software list is checked.

Once you are satisfied with your installation options, click **Next**.



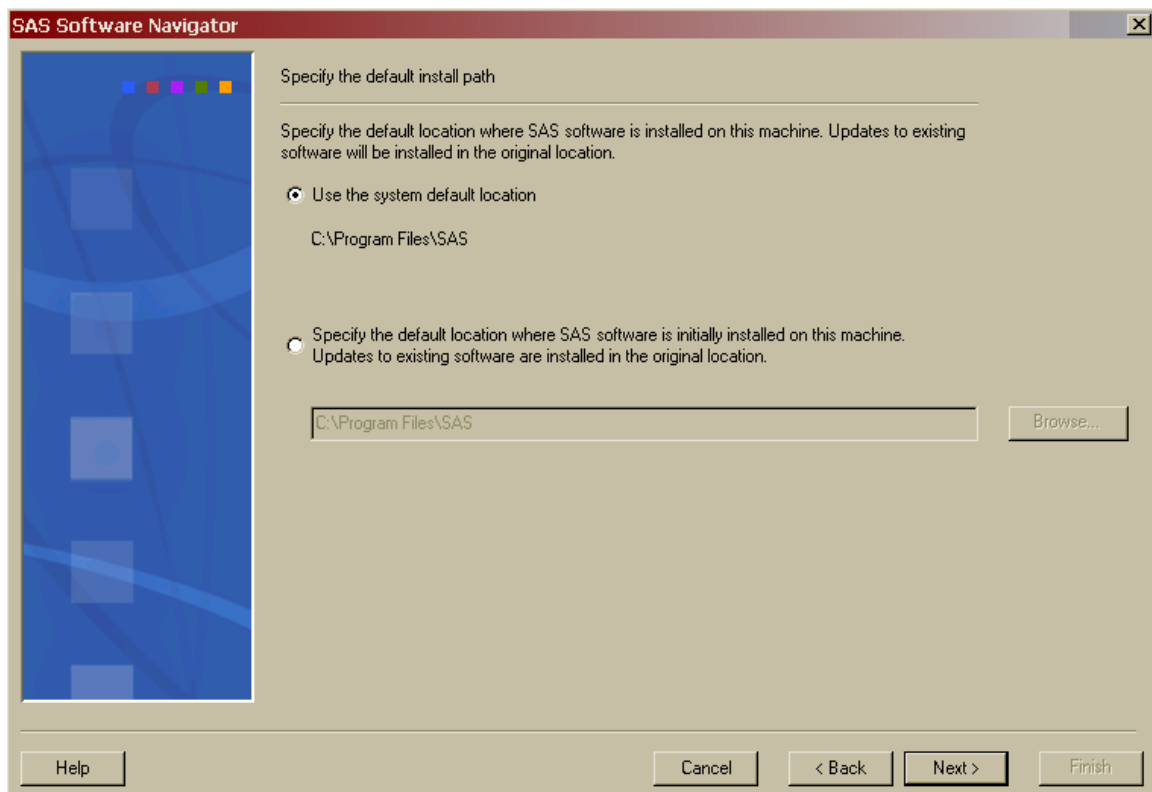
11. The **Specify the default install path** window opens. The default install path is the location where all your software is installed on this machine. This is referred to as the SASHOME location for UNIX and SASROOT for Windows.

You can choose to use the system default or specify your own location. Your choice is persisted for future use.

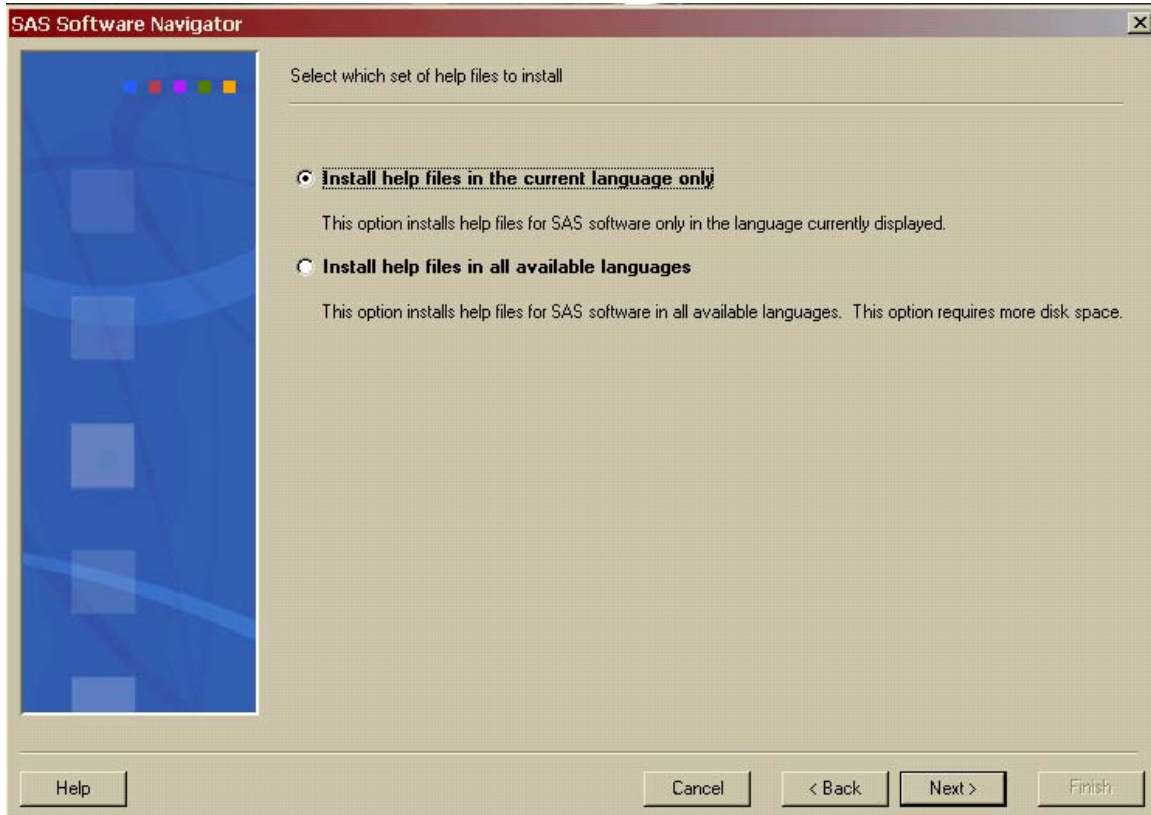
Note: *Do not attempt to install your software in the same location as your SAS Software Depot. If you decide to specify your own install location, ensure it is not the same directory location as the SAS Software Depot.*

The default install path is honored for initial installation of your software. Updates to existing software will be applied to their existing installation location.

Once you have selected where you want your software to be installed, click **Next**.

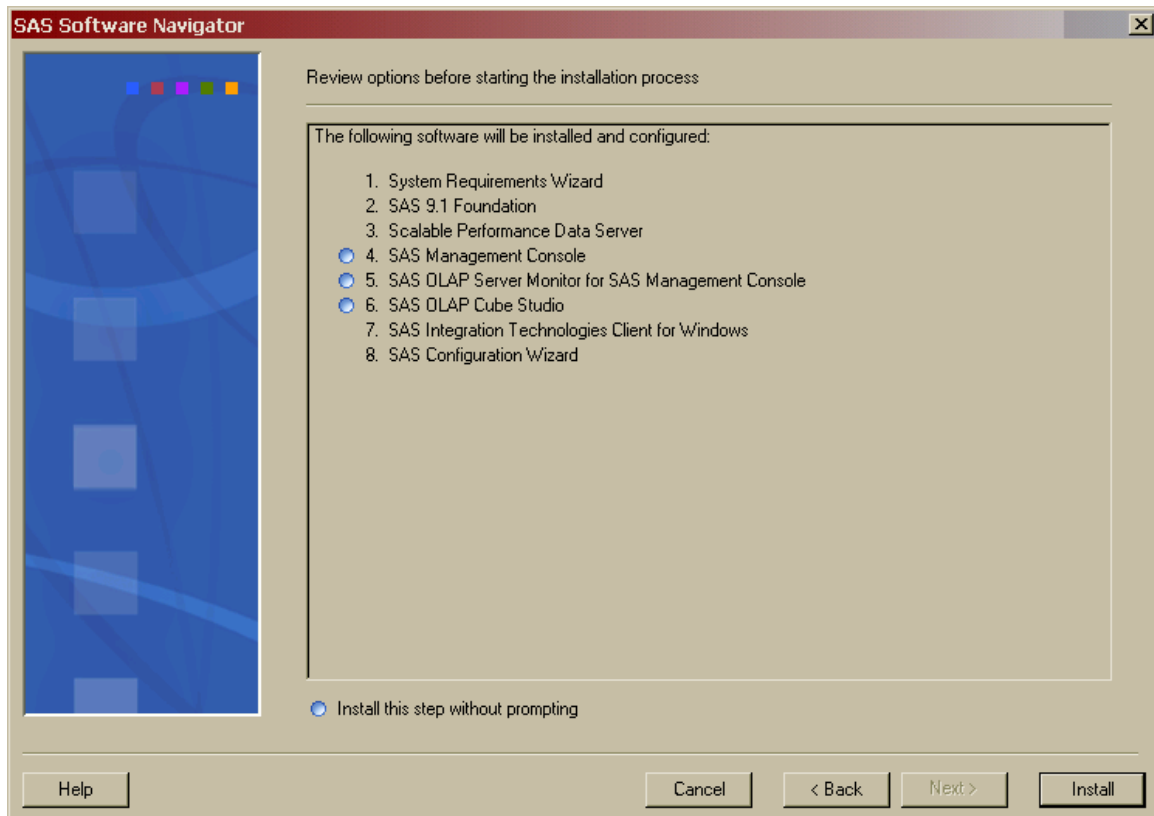


12. The **Select which set of help files to install** dialog opens. This dialog determines the language of the help files installed with the software in the installation queue. If the top radio button is selected, the help files will be installed, where possible, in the language you selected when you started the SAS Software Navigator. If the bottom radio button is selected, the help files will be installed in all available languages. Once you have made a selection, click **Next**.



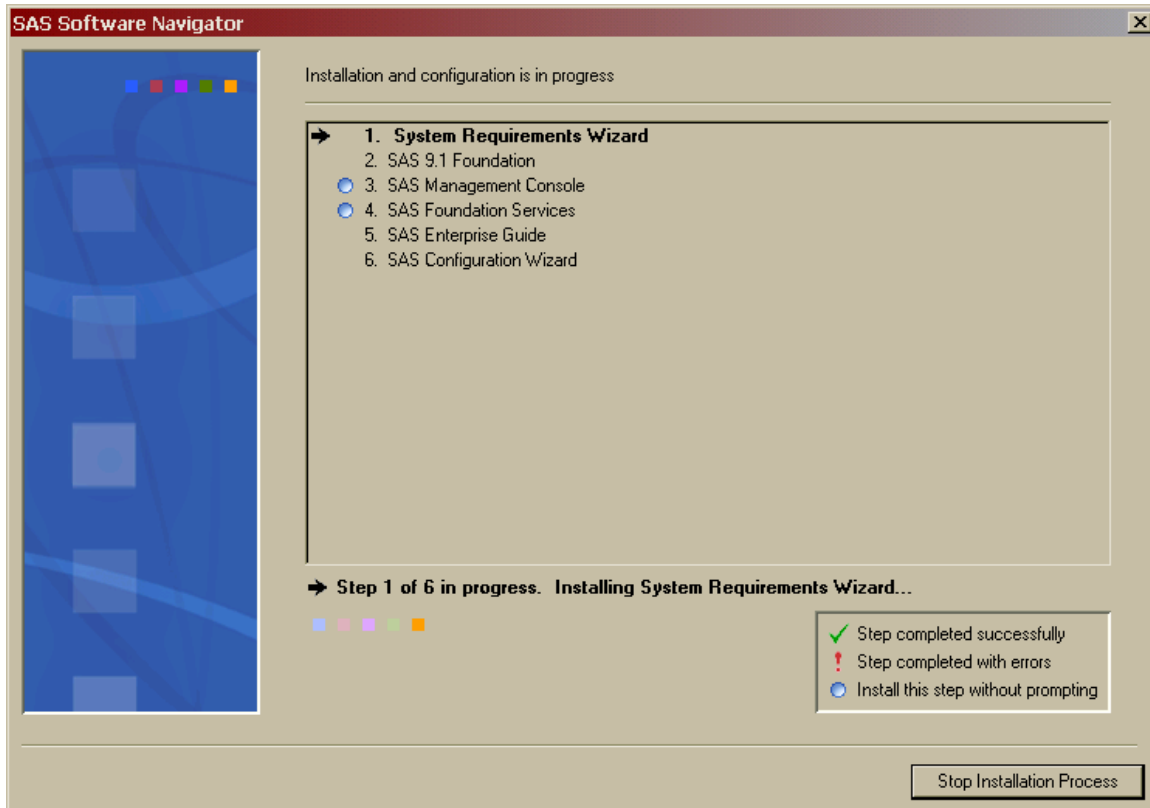
13. The **Review options before starting the installation process** dialog opens. The description field lists the software you have selected to install and configure from the previous dialogs. Review this one last time before beginning the installation process. If you decide to modify this list in some way, use the **Back** button to go backwards in the dialog and make changes.

Once you are satisfied with your selections, click **Install**.



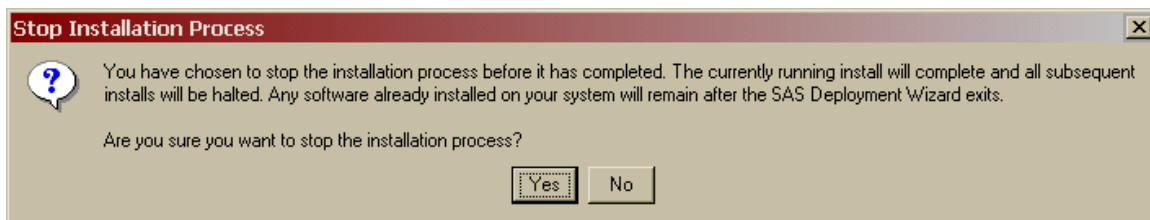
14. The SAS Software Navigator begins installing your software. As a product from the list is being installed, an arrow will appear to the left of it. You may be prompted for information from the installs that cannot be run quietly. If the software is installed correctly, a green check mark will appear in the place of the arrow.

Note: *If you are running on Windows, your system may need to reboot after installing certain software. If the SAS Software Navigator does not restart after the reboot, you must manually restart the SAS Software Navigator to continue installing SAS software.*



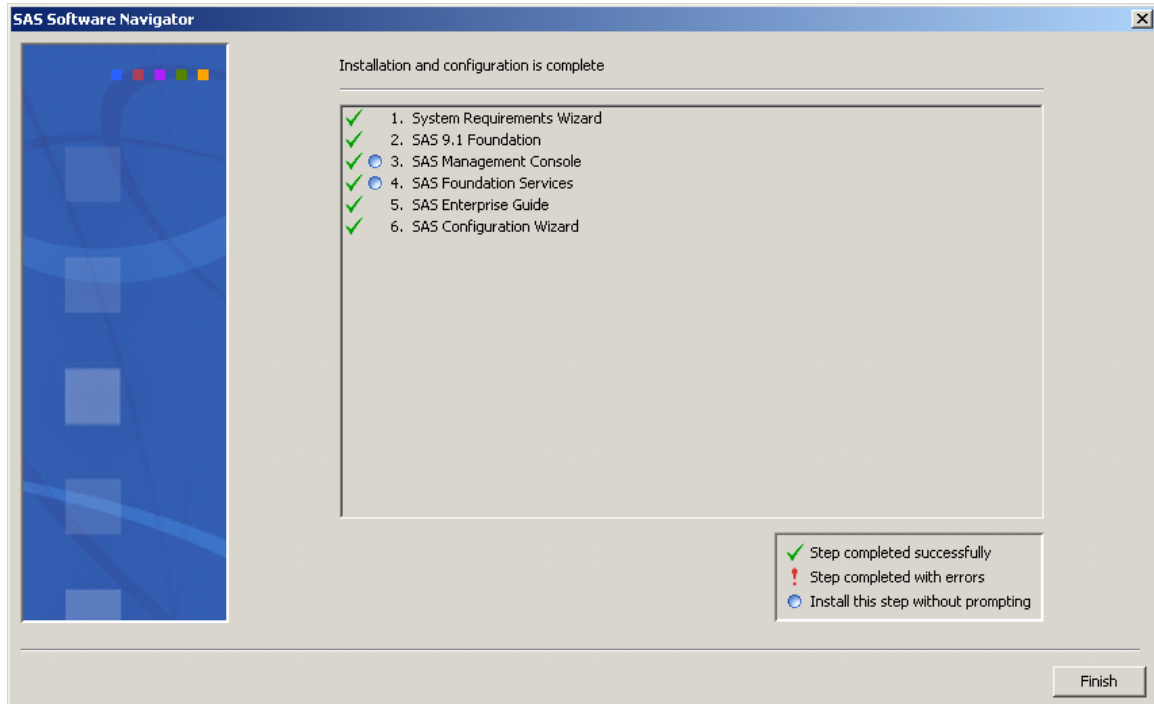
If an installation fails for some reason, a red exclamation mark (!) will take the place of the arrow and you will be asked if you wish to continue the installation process. If you answer **No**, the default response, you will receive a confirmation request. If you confirm your intention to stop the installation process, you will have to restart the SAS Software Navigator from its beginning once you repair the installation error. If you answer **Yes**, the SAS Software Navigator continues down the list, and you may try to repair the installation when it has completed the installation queue. You may also answer **Yes to all** so that whenever an error occurs and the error dialog would otherwise open, a default answer of **Yes** will be supplied. Finally, clicking **Retry** causes the SAS Software Navigator to retry the installation.

Clicking **Stop Installation Process** in the progress window opens the same dialog.



Note: Selecting **Yes** in the **Stop Installation Process** dialog breaks the chain of installations and will leave partially installed files on your system, which in turn may cause future problems. Do not click **Yes** unless there is an emergency.

15. After the SAS Software Navigator has installed all the software in the installation queue, you are presented with a message that your software installation is complete. Click **Finish** to close the SAS Software Navigator and begin using your SAS software. If you are performing a multi-machine installation, you should repeat the SAS Software Navigator on each machine in your deployment.



As the SAS Software Navigator is deploying your software, it creates a log file named `SSN.log`. The log is a text file that contains information on the installation and configuration process, which you may use to help troubleshoot your deployment with the aid of SAS Technical Support. The location of `SSN.log` varies by the operating system on which you are running the SAS Software Navigator, as described below:

Windows

`C:\Documents and Settings\\SSN.log`

UNIX

`$HOME/SSN.log`

OpenVMS Alpha

`SYS$LOGIN:SSN.LOG`

Chapter 4 – Using the Advanced Deployment

Note: Before you begin the installation process, be sure to consult the **Alert Notes** for any pertinent information. To see the Alert Notes, open either the Install Center or the **Documentation for Installing and Configuring SAS CD**, and select “Basic Installation Edition Kit.” In the “Pre-Installation” section under “Alert Notes,” select the Alert Notes link for your operating system.

An *Advanced* deployment enables you to install and configure SAS software on a single machine or as part of a multiple-machine deployment. You can choose a standard deployment plan that matches your SAS Installation Data or choose a customized deployment plan made specifically for your site. This type of deployment offers you more choices for customization.

Note: If you are performing an advanced deployment of your SAS software on a machine using Microsoft Windows for 64-Bit Itanium-based Systems, you **must** deploy your software from a SAS Software Depot. If you have not already created a SAS Software Depot, refer to Chapter 2, “Creating a SAS Software Depot,” for more information.

Note: During the installation process, you will be asked to specify the location of your SAS Installation Data. For Windows, we strongly recommend that you specify this location using a mapped network drive. Under some circumstances, connecting directly via UNC paths can cause problems during your installation.

Note: Most of the dialogs used by the SAS Software Navigator have a **Help** button in the bottom left corner. You may click the **Help** button at any time to learn more about the choices presented by the window you are in.

Complete the following steps to perform a **Advanced** deployment.

1. Log in to the machine on which you will be installing software as the *sas* user (Windows users should log in as any member of the Administrators group). The *sas* account is used to perform all your installs from and allows consistent ownership and file permissions to be maintained. Refer to Part 2, “Installation and Initial Configuration” in the *SAS Intelligence Platform: Installation Guide* for more information about the *sas* user ID. You can download a copy of this document from <http://support.sas.com/documentation/configuration/913admin.html>.
2. The SAS Software Navigator loads and runs in temporary space. Prior to loading, the SAS Software Navigator searches your system for a SAS Private Java Runtime Environment (JRE) from which to run. If a SAS Private JRE is found, the SAS Software Navigator will use it, reducing the amount of temporary space required. If a suitable JRE is not found, the SAS Software Navigator will load a copy into temporary space.

In addition, each install you run will also require the use of temporary space in which to execute (which varies per install). All the installs and the SAS Software Navigator will free this space upon exiting normally.

Check the table below for the system you are running the SAS Software Navigator on to help determine if you have adequate free temporary space to execute. The space estimates in the table include loading a JRE to temporary space. You can reduce the estimated temporary space requirements if you install a SAS Private JRE prior creating a SAS Software Depot.

Operating System	Temporary space required
AIX	337 free MB in /tmp
HP-UX Itanium	479 free MB in /tmp
HP-UX	571 free MB in /tmp
Linux for Intel Architecture	259 free MB in /tmp
Linux for Itanium-based Systems	281 free MB in /tmp
OpenVMS Alpha	450,000 free blocks in SYS\$UPDATE
Solaris	388 free MB in /tmp*
Solaris for x64	408 free MB in /tmp*
Tru64 UNIX	260 free MB in /tmp
Windows	400 free MB in TEMP

* On some Solaris and Solaris for x64 systems, /tmp and swap may be mapped to the same device, which means the amount of space in /tmp may vary widely based on the number and size of the currently running programs. As a result, the SAS Software Navigator may indicate you have inadequate space in /tmp. If this occurs, when prompted, specify an alternate location with adequate space on a device free of swap.

On UNIX, you can specify an alternate directory where temporary files are loaded. This is useful when the default directory for temporary files (typically /tmp or /usr/tmp) does not have adequate free space.

You can specify an alternate temporary directory in one of the following ways.

- Set the \$SSNTMPDIR environmental variable to the path of the alternate directory, for example:

```
$ export SSNTMPDIR=<path>
```

- Specify the `-ssntmpdir` command line flag to set the alternate directory when launching the SAS Software Navigator, for example:

```
$ setup.sh -ssntmpdir <path>
```

3. If you are running from a SAS Software Depot, you should skip to step 3b.
 - a. Insert the CD and mount it using the procedures listed below for the appropriate operating system.

Note: All CDs should be run on a native machine. If you attempt to use a terminal emulator, the software may not function properly.

Windows

Once the SAS Software Navigator CD is inserted, it should begin to autoplay. If the autoplay does not start, **Windows** users should find `setup.exe` and open it.

UNIX Systems

On **UNIX**, the SAS Software Navigator CD will be automatically mounted if you are running an automount program, such as `vold` on Solaris. Otherwise you must manually mount the CD. Manually mounting a CD on UNIX requires root privilege. Log in as root before mounting the CD.

```
$ su root
```

On single-drive systems, the CDs must be unmounted and mounted often. SAS recommends that you maintain a separate root user ID window for mounting and unmounting the CDs, while running the SAS Software Navigator in a different window.

The mount command on UNIX follows this format:

```
# mount [options] device mount_point
```

In this example, `[options]` are valid mount options for the operating system, `device` is the name of the CD-ROM device, and `mount_point` is the directory used as the mount point for the media.

The following are sample mount commands for each supported UNIX system. The device names listed below are used only for example; substitute your actual device names accordingly. These instructions assume your mount point is `/mnt/cdrom`; however, you may choose another location.

AIX

```
# mount -r -v cdrfs /dev/cd0 /mnt/cdrom
```

HP-UX and HP-UX for the Itanium Processor Family

```
# mount -F cdfs -o rr,ro /dev/dsk/c0t0d0 /mnt/cdrom
```

Linux for Intel Architecture and Linux for Itanium-based Systems

```
# mount -r /dev/cd0 /mnt/cdrom
```

Note: *If you are installing Red Hat Enterprise Linux 3 Update 7 and later, Red Hat has made changes that interfere with the standard SAS installer operation. To work around those changes, add `noexec=off` as a kernel boot parameter. You may choose to do this in `grub/lilo`.*

Solaris and Solaris for x64

```
# mount -r -F hsfs /dev/cd0 /mnt/cdrom
```

Tru64 UNIX

```
# mount -rt cdfs -o noversion,rrip /dev/cd0 /mnt/cdrom
```

Remote Mounting

If your CD-ROM drive resides on another host, and is properly exported, mount the CD using NFS by issuing a command similar to the following:

```
# mount -o ro <remotehost>:/<cd-rom-dir> /mnt/cdrom
```

In this example, `<remotehost>` refers to the machine that owns the CD-ROM drive and `<cd-rom-dir>` is the actual mount point for the CD-ROM drive on the server.

Once mounted, launch the SAS Software Navigator with the command:

```
$ /mnt/cdrom/setup.sh
```

Note: When using a system with an automounter, it is common for a File Manager window to display when the media is inserted in the CD-ROM drive. Do not invoke the SAS Software Navigator via the File Manager since this will create a "Device busy" condition, preventing disk swapping later in the install process.

OpenVMS Alpha Systems

On **OpenVMS Alpha**, mount the SAS Software Navigator CD using the command

```
$ MOUNT/OVER=ID/MEDIA=CDROM/UNDEF=(STREAM_LF:0) cd-rom
```

In this example, *cd-rom* is the actual device name of your CD-ROM drive. Once mounted, launch the software with the command

```
$ MCR cd-rom:[000000] SETUP_VMS.EXE
```

where *cd-rom* is the actual device name of your CD-ROM drive.

- b. If you have created a SAS Software Depot and wish to launch the SAS Software Navigator from it, perform the steps appropriate for the platform you are using:

Windows

Go the network location where the SAS Software Depot is located, then double-click the `setup.exe` to start the SAS Software Navigator.

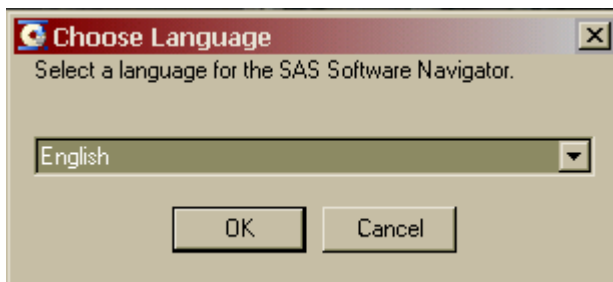
UNIX

Go the network location where the SAS Software Depot is located, then launch the SAS Software Navigator with `setup.sh` in that directory.

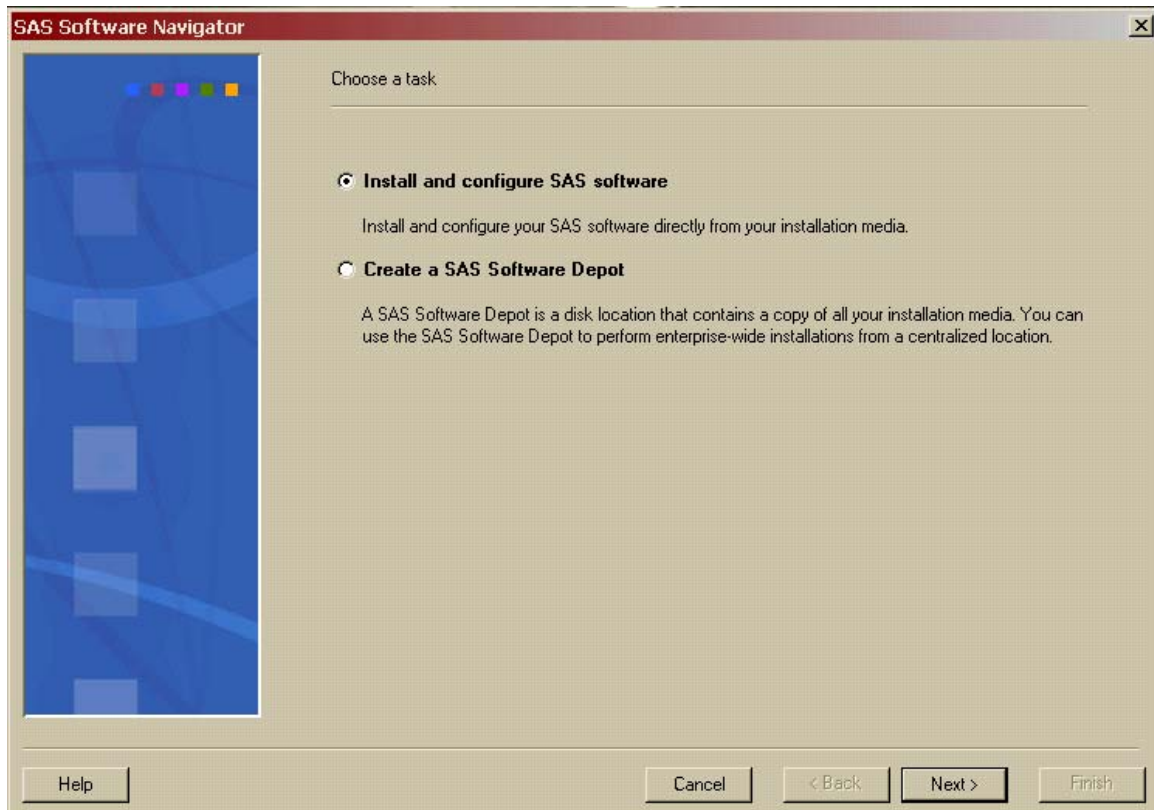
OpenVMS Alpha

Issue the command `$ MCR disk:[dir]SETUP_VMS.EXE`, where `disk` and `dir` are the network location of the SAS Software Depot.

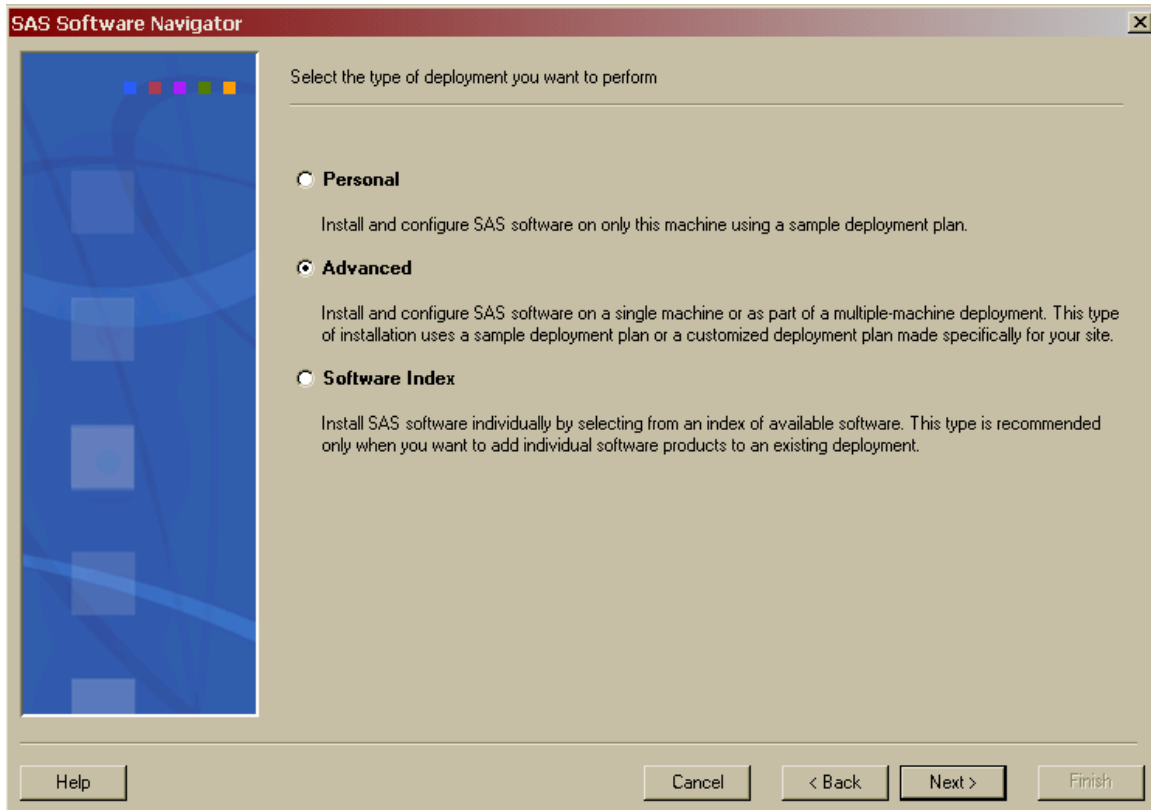
4. The entry point for the SAS Software Navigator is the **Choose Language** dialog. Select the language you wish to run the SAS Software Navigator from, using the pull-down list. Click **OK**.



5. After the SAS Software Navigator is loaded, it presents you with the choice of **Install and configure SAS software** or **Create a SAS Software Depot**. Select **Install and configure SAS software**, then click **Next**. If you have already created a SAS Software Depot and wish to install and configure your software, you should exit the SAS Software Navigator and launch it directly from the SAS Software Depot. This screen will not appear if you are running from a SAS Software Depot.

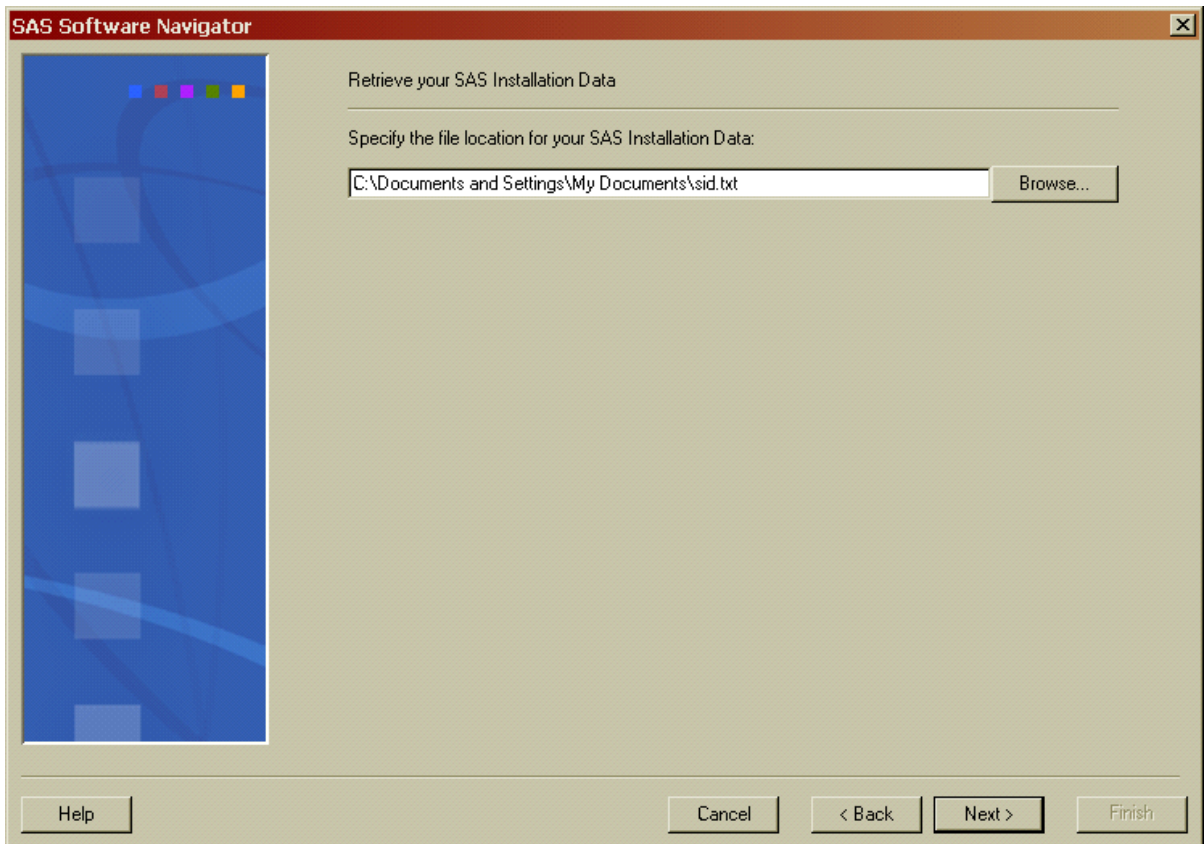


6. The **Select the type of deployment you want to perform** dialog opens. Select the **Advanced** radio button and click **Next**.

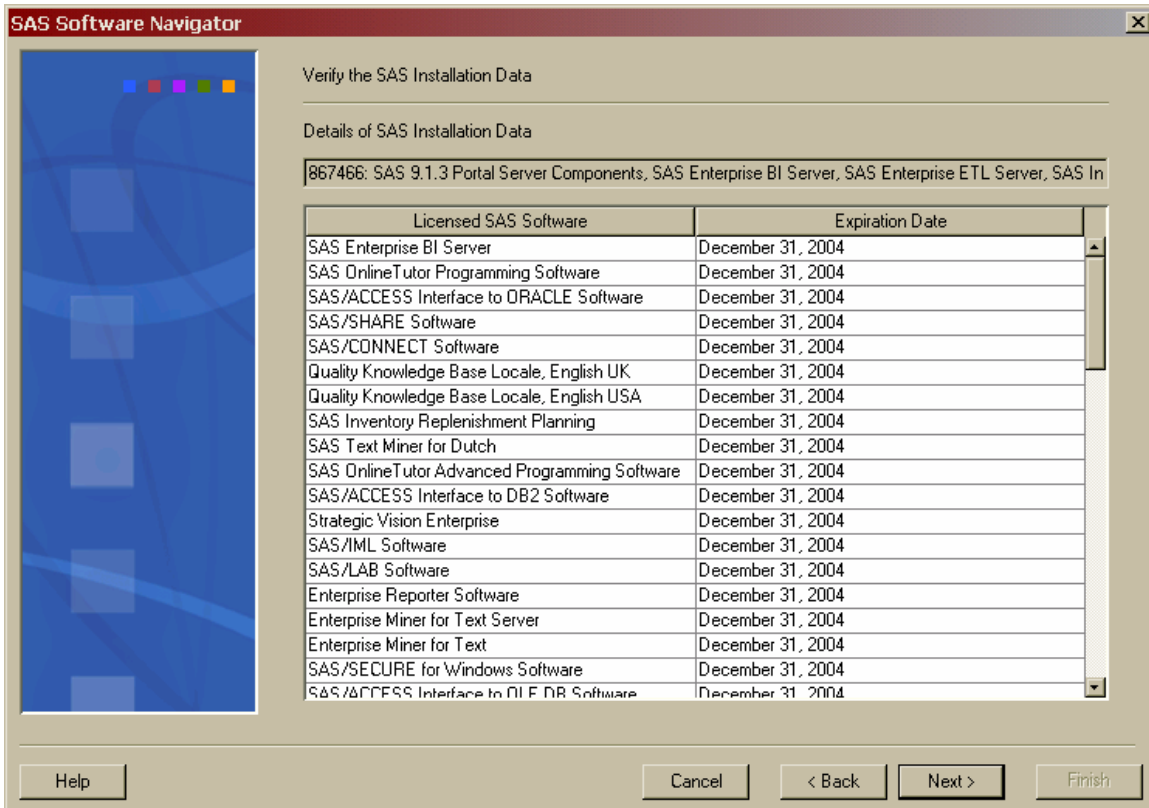


7. The **Retrieve your SAS Installation Data** dialog opens. In the text box, enter the location of your SAS Installation Data text file. You can also use the **Browse** button to search your system for the file. If you have retrieved your SAS Installation Data previously, the location you chose before will be the default location in the text box. Once the correct location has been entered into the text box, click **Next**.

If you cannot find your SAS Installation Data, you should go to the Web site <http://support.sas.com/adminservices-SID> to have your Software Order E-mail and its attached SAS Installation Data re-sent to the SAS Installation Representative at your site.

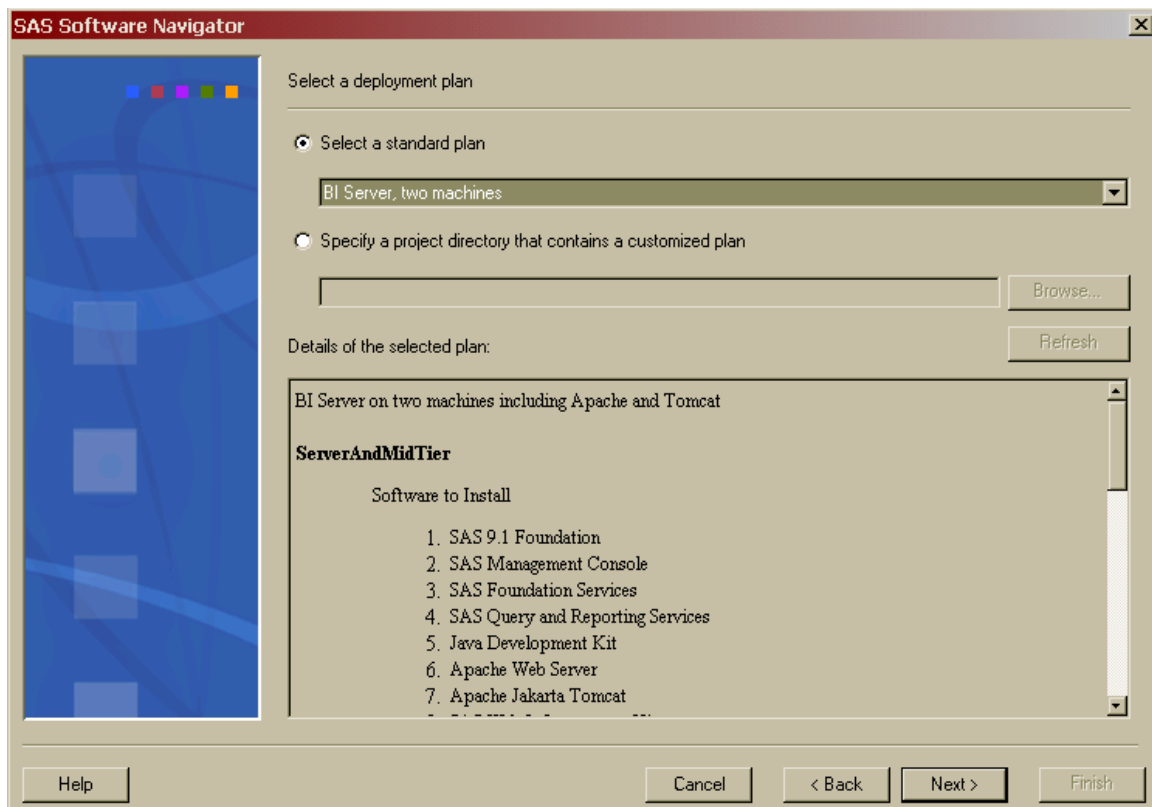


- The **Verify the SAS Installation Data** dialog opens. Review the SAS installation Data that you have retrieved to ensure you have the file you want. If you do not have the appropriate SAS Installation Data, click **Back**. If you have the SAS Installation Data you intend to use, click **Next**.



9. The **Select a deployment plan** dialog opens. If you select the first radio button, the drop-down list provides you with sample plans for deploying your SAS software. If you select the second radio button, you should enter the location of your project directory in the text box or use the **Browse** button to search for the location of your project directory. When a plan is selected, a description of that plan is presented in the description field. Choose the plan you want and click **Next**.

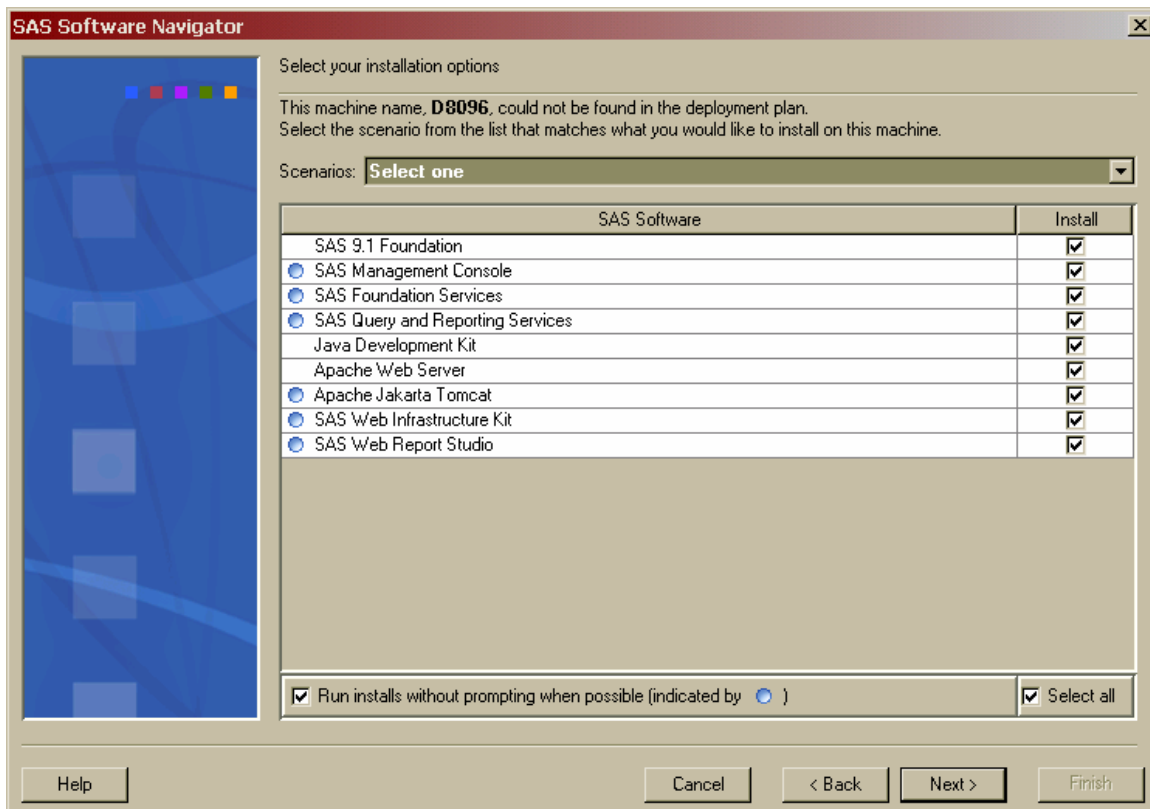
Note: *The sample plans represent the minimally required products to deploy the software, rather than the list of all the products that may be used with the software you've ordered. If you would like to deploy products not in the sample plan, SAS recommends installing the software in the sample plan first, then going to the Software Index to install any additional products.*



10. The **Select your installation options** dialog opens. If the deployment plan you have selected includes the machine name of the machine you are working from, the appropriate installation list will appear on this dialog. If the deployment plan does not include your machine name, you will be asked to choose from one of the scenarios that accommodates your entries in previous screens. Once the SAS Software Navigator has the information it needs, the bottom pane provides a list of the software to be installed to your machine. A column of **Install** check boxes appears to the right of the SAS Software list. When a check box for a product is checked, that product will be installed when the SAS Software Navigator performs the installation process. You may deselect a product to remove it from the installation queue, though SAS recommends that you allow the software to be installed by the chosen deployment plan. Checking the **Select All** check box returns the installation queue to its default state of installing all the software listed.

Software with a blue circle to the left of its title may be installed without prompts as the SAS Software Navigator goes through the installation queue. To use this functionality, ensure the check box at the bottom of the SAS Software list is checked.

Once you are satisfied with your installation options, click **Next**.



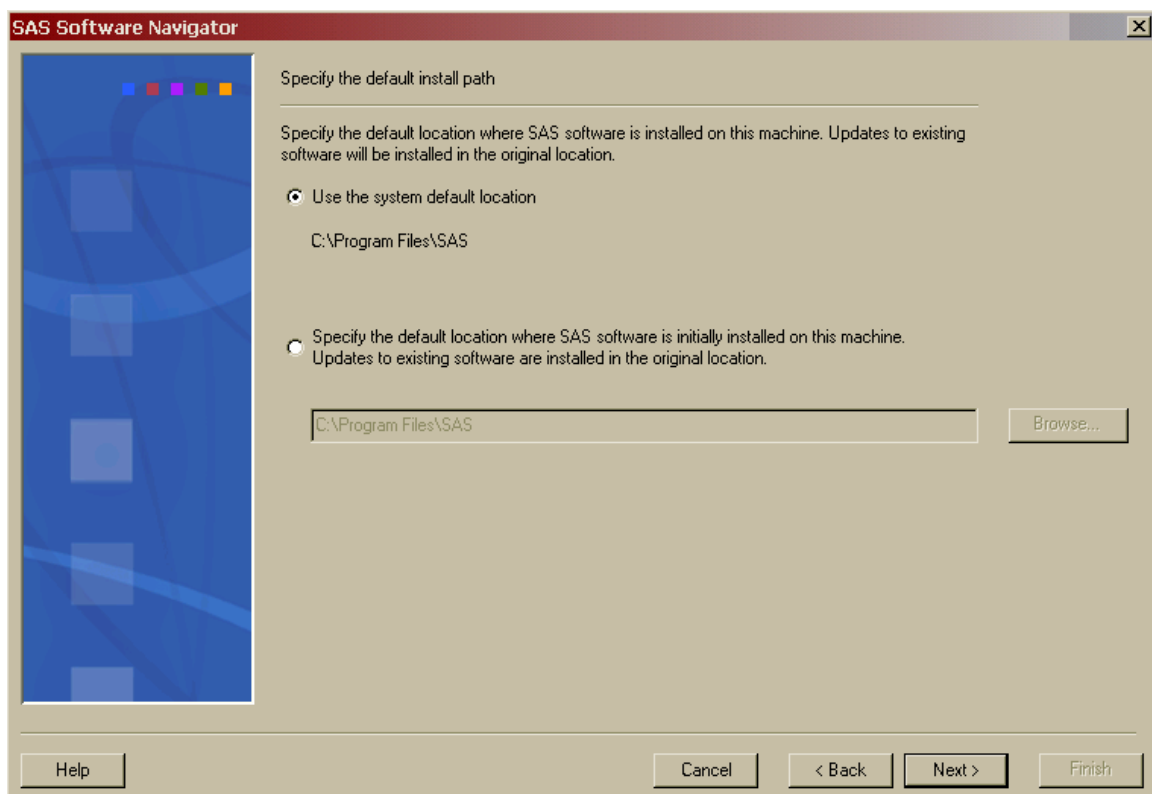
11. The **Specify the default install path** window opens. The default install path is the location where all your software is installed on this machine. This is referred to as the SASHOME location for UNIX and SASROOT for Windows.

You can choose to use the system default or specify your own location. Your choice is persisted for future use.

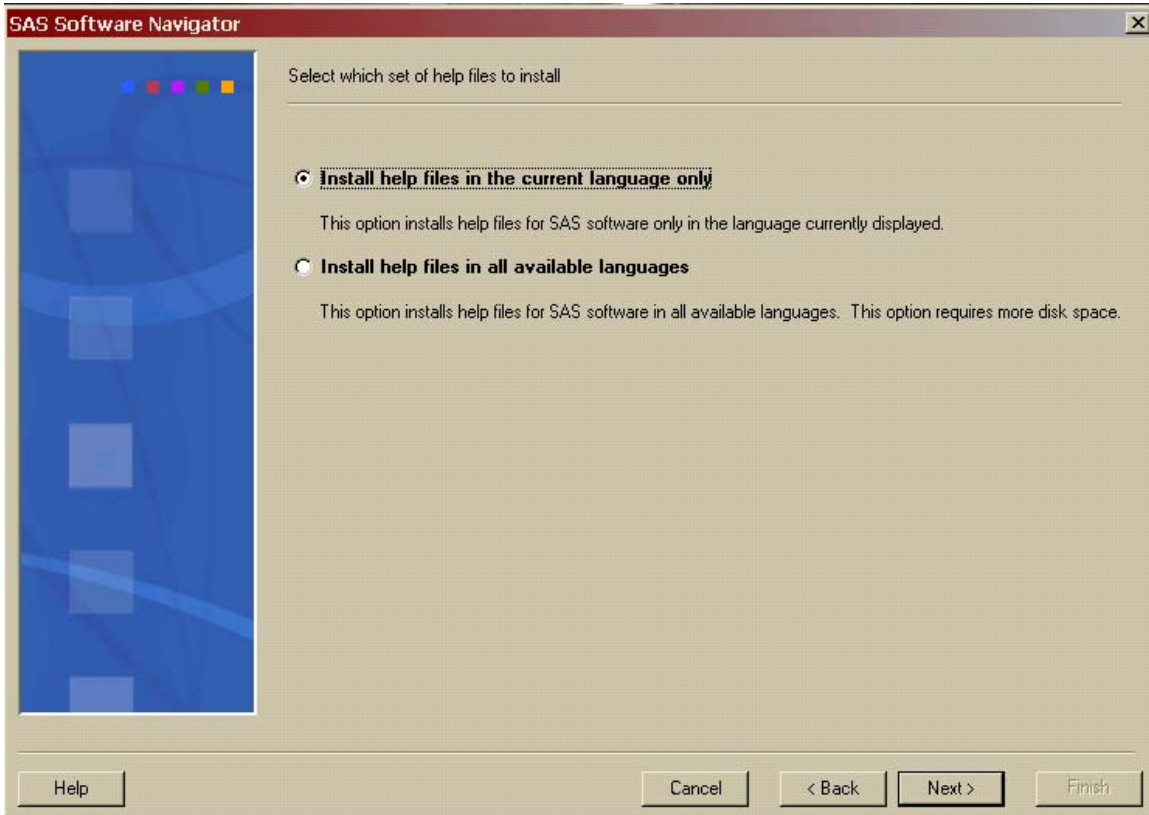
Note: *Do not attempt to install your software in the same location as your SAS Software Depot. If you decide to specify your own install location, ensure it is not the same directory location as the SAS Software Depot.*

The default install path is honored for initial installation of your software. Updates to existing software will be applied to their existing installation location.

Once you have selected where you want your software to be installed, click **Next**.

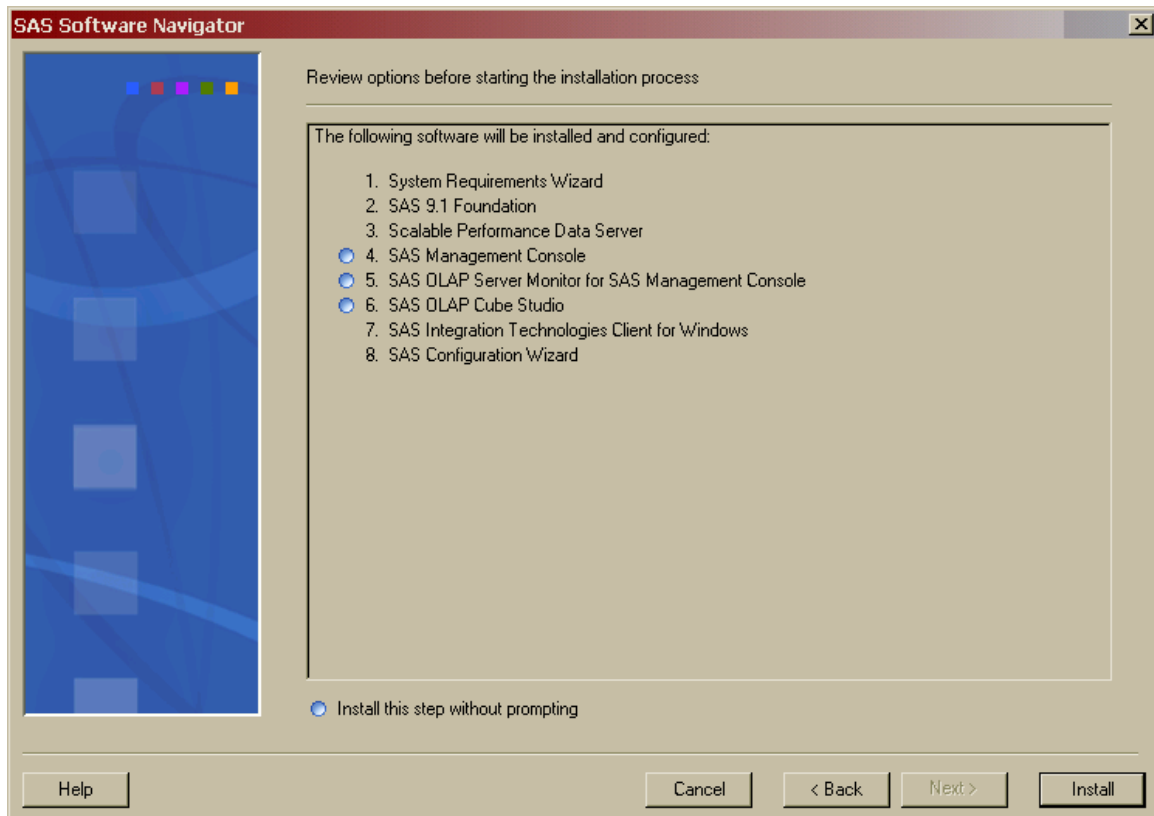


12. The **Select which set of help files to install** dialog opens. This dialog determines the language of the help files installed with the software in the installation queue. If the top radio button is selected, the help files will be installed, where possible, in the language you selected when you started the SAS Software Navigator. If the bottom radio button is selected, the help files will be installed in all available languages. Once you have made a selection, click **Next**.



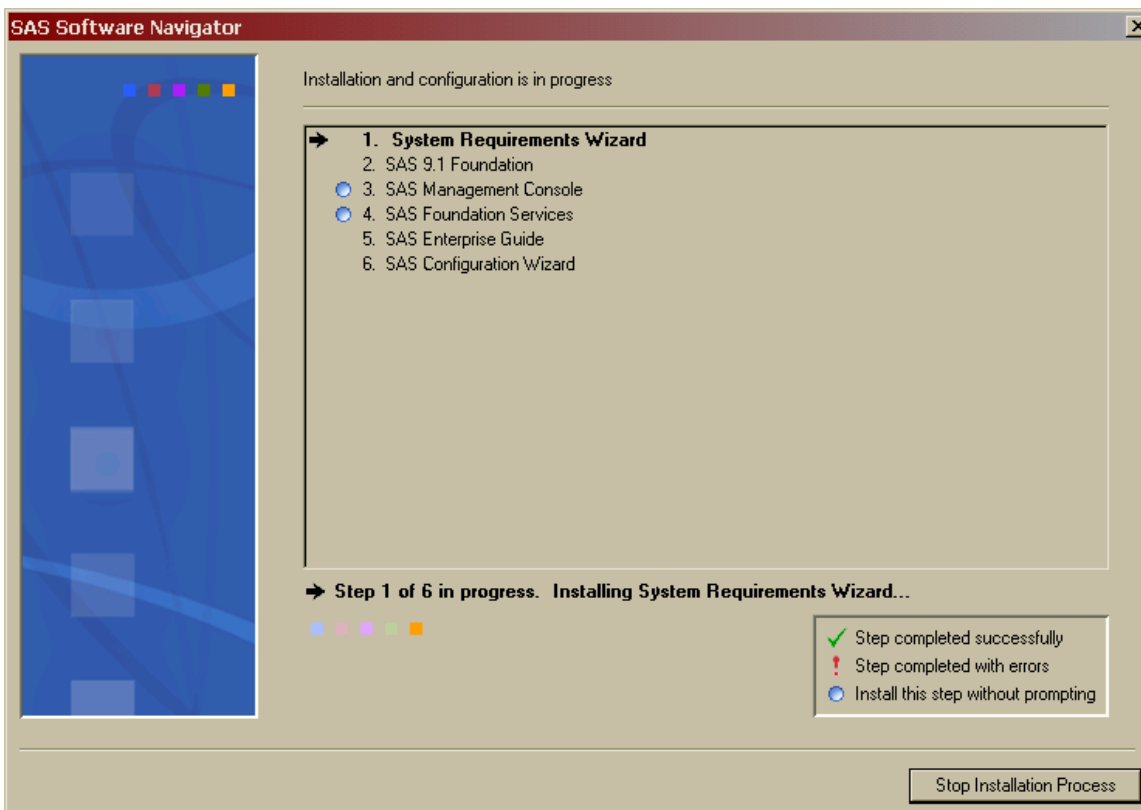
13. The **Review options before starting the installation process** dialog opens. The description field lists the software you have selected to install and configure from the previous dialogs. Review this one last time before beginning the installation process. If you decide to modify this list in some way, use the **Back** button to go backwards in the dialog and make changes.

Once you are satisfied with your selections, click **Install**.



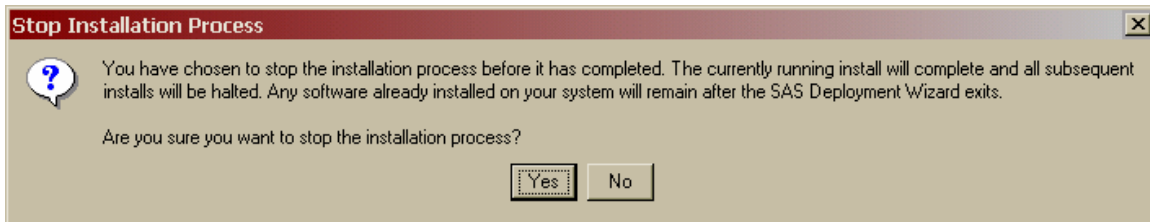
- The SAS Software Navigator begins installing your software. As a product from the list is being installed, an arrow will appear to the left of it. You may be prompted for information from the installs that cannot be run quietly. If the software is installed correctly, a green check mark will appear in the place of the arrow.

Note: *If you are running on Windows, your system may need to reboot after installing certain software. If the SAS Software Navigator does not restart after the reboot, you must manually restart the SAS Software Navigator to continue installing SAS software.*



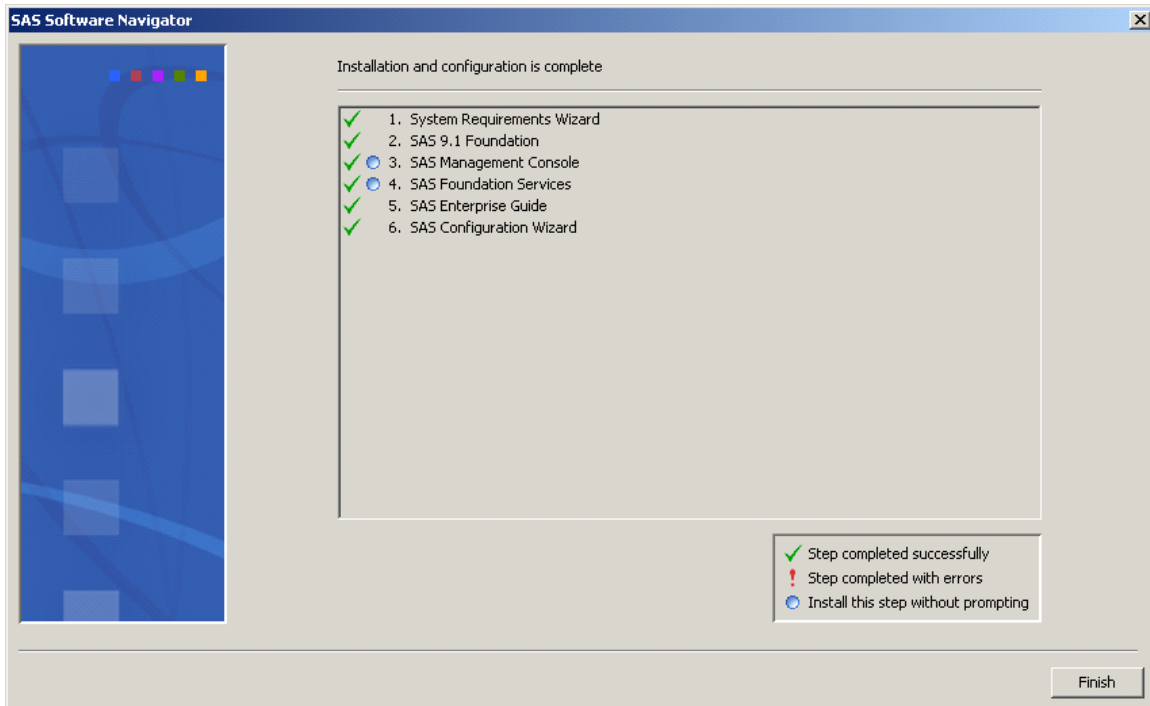
If an installation fails for some reason, a red exclamation mark (!) will take the place of the arrow and you will be asked if you wish to continue the installation process. If you answer **No**, the default response, you will receive a confirmation request. If you confirm your intention to stop the installation process, you will have to restart the SAS Software Navigator from its beginning once you repair the installation error. If you answer **Yes**, the SAS Software Navigator continues down the list, and you may try to repair the installation when it has completed the installation queue. You may also answer **Yes to all** so that whenever an error occurs and the error dialog would otherwise open, a default answer of **Yes** will be supplied. Finally, clicking **Retry** causes the SAS Software Navigator to retry the installation.

Clicking **Stop Installation Process** in the progress window opens the same dialog.



Note: Selecting **Yes** in the **Stop Installation Process** dialog breaks the chain of installations and will leave partially installed files on your system, which in turn may cause future problems. Do not click **Yes** unless there is an emergency.

15. After the SAS Software Navigator has installed all the software in the installation queue, you are presented with a message that your software installation is complete. Click **Finish** to close the SAS Software Navigator and begin using your SAS software. If you are performing a multi-machine installation, you should repeat the SAS Software Navigator on each machine in your deployment.



As the SAS Software Navigator is deploying your software, it creates a log file named `SSN.log`. The log is a text file that contains information on the installation and configuration process, which you may use to help troubleshoot your deployment with the aid of SAS Technical Support. The location of `SSN.log` varies by the operating system on which you are running the SAS Software Navigator, as described below:

Windows

C:\Documents and Settings\\SSN.log

UNIX

\$HOME/SSN.log

OpenVMS Alpha

SYS\$LOGIN:SSN.LOG

Chapter 5 – Using the Software Index

Note: Before you begin the installation process, be sure to consult the **Alert Notes** for any pertinent information. To see the Alert Notes, open either the Install Center or the **Documentation for Installing and Configuring SAS CD**, and select “Basic Installation Edition Kit.” In the “Pre-Installation” section under “Alert Notes,” select the Alert Notes link for your operating system.

Installation from the *software index* enables you to select and install SAS software of your choice from an index of software available at your site. This type of installation does not use a deployment plan and does not automatically configure the software you choose to install. Using the software index is recommended only when you want to add individual software products to an existing deployment.

Note: During the installation process, you will be asked to specify the location of your SAS Installation Data. For Windows, we strongly recommend that you specify this location using a mapped network drive. Under some circumstances, connecting directly via UNC paths can cause problems during your installation.

Note: Most of the dialogs used by the SAS Software Navigator have a **Help** button in the bottom left corner. You may click the **Help** button at any time to learn more about the choices presented by the window you are in.

Complete the following steps to start and use the **Software Index**.

1. Log in to the machine on which you will be installing software as the *sas* user (Windows users should log in as any member of the Administrators group). The *sas* account is used to perform all your installs from and allows consistent ownership and file permissions to be maintained. Refer to Part 2, “Installation and Initial Configuration” in the *SAS Intelligence Platform: Installation Guide* for more information about the *sas* user ID. You can download a copy of this document from <http://support.sas.com/documentation/configuration/913admin.html>.
2. The SAS Software Navigator loads and runs in temporary space. Prior to loading, the SAS Software Navigator searches your system for a SAS Private Java Runtime Environment (JRE) from which to run. If a SAS Private JRE is found, the SAS Software Navigator will use it, reducing the amount of temporary space required. If a suitable JRE is not found, the SAS Software Navigator will load a copy into temporary space.

In addition, each install you run will also require the use of temporary space in which to execute (which varies per install). All the installs and the SAS Software Navigator will free this space upon exiting normally.

Check the table below for the system you are running the SAS Software Navigator on to help determine if you have adequate free temporary space to execute. The space estimates in the table include loading a JRE to temporary space. You can reduce the estimated temporary space requirements if you install a SAS Private JRE prior creating a SAS Software Depot.

Operating System	Temporary space required
AIX	337 free MB in /tmp
HP-UX Itanium	479 free MB in /tmp
HP-UX	571 free MB in /tmp
Linux for Intel Architecture	259 free MB in /tmp
Linux for Itanium-based Systems	281 free MB in /tmp
OpenVMS Alpha	450,000 free blocks in SYS\$UPDATE
Solaris	388 free MB in /tmp*
Solaris for x64	408 free MB in /tmp*
Tru64 UNIX	260 free MB in /tmp
Windows	400 free MB in TEMP

* On some Solaris and Solaris for x64 systems, /tmp and swap may be mapped to the same device, which means the amount of space in /tmp may vary widely based on the number and size of the currently running programs. As a result, the SAS Software Navigator may indicate you have inadequate space in /tmp. If this occurs, when prompted, specify an alternate location with adequate space on a device free of swap.

On UNIX, you can specify an alternate directory where temporary files are loaded. This is useful when the default directory for temporary files (typically /tmp or /usr/tmp) does not have adequate free space.

You can specify an alternate temporary directory in one of the following ways.

- Set the \$SSNTMPDIR environmental variable to the path of the alternate directory, for example:

```
$ export SSNTMPDIR=<path>
```

- Specify the -ssntmpdir command line flag to set the alternate directory when launching the SAS Software Navigator, for example:

```
$ setup.sh -ssntmpdir <path>
```

3. If you are running from a SAS Software Depot, you should skip to step 3b.
 - a. Insert the CD and mount it using the procedures listed below for the appropriate operating system.

Note: All CDs should be run on a native machine. If you attempt to use a terminal emulator, the software may not function properly.

Windows

Once the SAS Software Navigator CD is inserted, it should begin to autoplay. If the autoplay does not start, **Windows** users should find `setup.exe` and open it.

UNIX Systems

On **UNIX**, the SAS Software Navigator CD will be automatically mounted if you are running an automount program, such as `vold` on Solaris. Otherwise you must manually mount the CD. Manually mounting a CD on UNIX requires root privilege. Log in as root before mounting the CD.

```
$ su root
```

On single-drive systems, the CDs must be unmounted and mounted often. SAS recommends that you maintain a separate root user ID window for mounting and unmounting the CDs, while running the SAS Software Navigator in a different window.

The mount command on UNIX follows this format:

```
# mount [options] device mount_point
```

In this example, `[options]` are valid mount options for the operating system, `device` is the name of the CD-ROM device, and `mount_point` is the directory used as the mount point for the media.

The following are sample mount commands for each supported UNIX system. The device names listed below are used only for example; substitute your actual device names accordingly. These instructions assume your mount point is `/mnt/cdrom`; however, you may choose another location.

AIX

```
# mount -r -v cdrfs /dev/cd0 /mnt/cdrom
```

HP-UX and HP-UX for the Itanium Processor Family

```
# mount -F cdfs -o rr,ro /dev/dsk/c0t0d0 /mnt/cdrom
```

Linux for Intel Architecture and Linux for Itanium-based Systems

```
# mount -r /dev/cd0 /mnt/cdrom
```

Note: If you are installing Red Hat Enterprise Linux 3 Update 7 and later, Red Hat has made changes that interfere with the standard SAS installer operation. To work around those changes, add `noexec=off` as a kernel boot parameter. You may choose to do this in `grub/lilo`.

Solaris and Solaris for x64

```
# mount -r -F hsfs /dev/cd0 /mnt/cdrom
```

Tru64 UNIX

```
# mount -rt cdfs -o noversion,rrip /dev/cd0 /mnt/cdrom
```

Remote Mounting

If your CD-ROM drive resides on another host, and is properly exported, mount the CD using NFS by issuing a command similar to the following:

```
# mount -o ro <remotehost>:/<cd-rom-dir> /mnt/cdrom
```

In this example, `<remotehost>` refers to the machine that owns the CD-ROM drive and `<cd-rom-dir>` is the actual mount point for the CD-ROM drive on the server.

Once mounted, launch the SAS Software Navigator with the command:

```
$ /mnt/cdrom/setup.sh
```

Note: When using a system with an automounter, it is common for a File Manager window to display when the media is inserted in the CD-ROM drive. Do not invoke the SAS Software Navigator via the File Manager since this will create a "Device busy" condition, preventing disk swapping later in the install process.

OpenVMS Alpha Systems

On **OpenVMS Alpha**, mount the SAS Software Navigator CD using the command

```
$ MOUNT/OVER=ID/MEDIA=CDROM/UNDEF=(STREAM_LF:0) cd-rom
```

In this example, *cd-rom* is the actual device name of your CD-ROM drive. Once mounted, launch the software with the command

```
$ MCR cd-rom:[000000] SETUP_VMS.EXE
```

where *cd-rom* is the actual device name of your CD-ROM drive.

- b. If you have created a SAS Software Depot and wish to launch the SAS Software Navigator from it, perform the steps appropriate for the platform you are using:

Windows

Go the network location where the SAS Software Depot is located, then double-click the *setup.exe* to start the SAS Software Navigator.

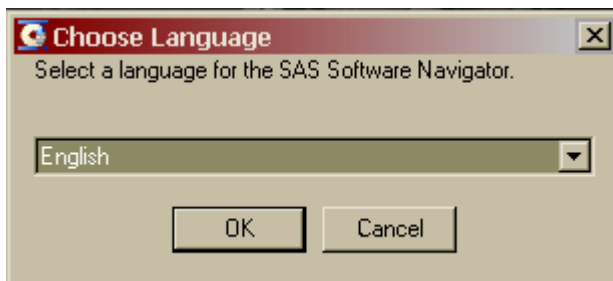
UNIX

Go the network location where the SAS Software Depot is located, then launch the SAS Software Navigator with *setup.sh* in that directory.

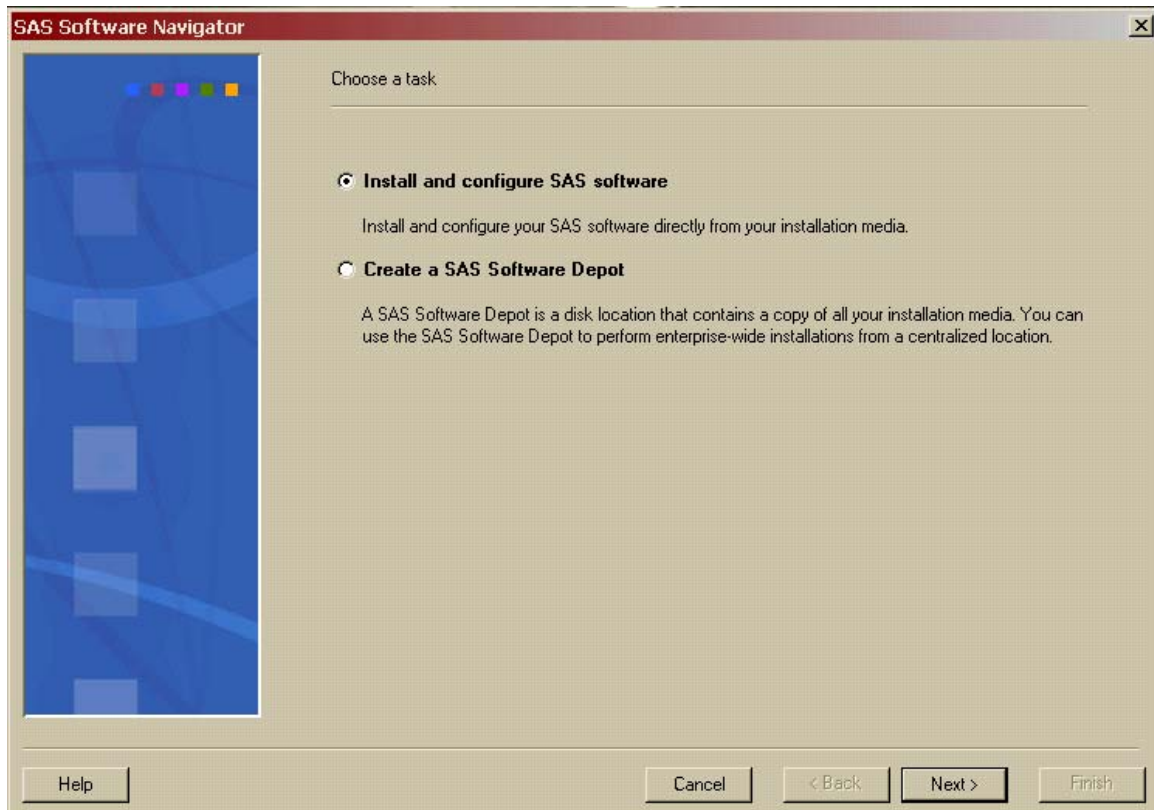
OpenVMS Alpha

Issue the command `$ MCR disk:[dir]SETUP_VMS.EXE`, where *disk* and *dir* are the network location of the SAS Software Depot.

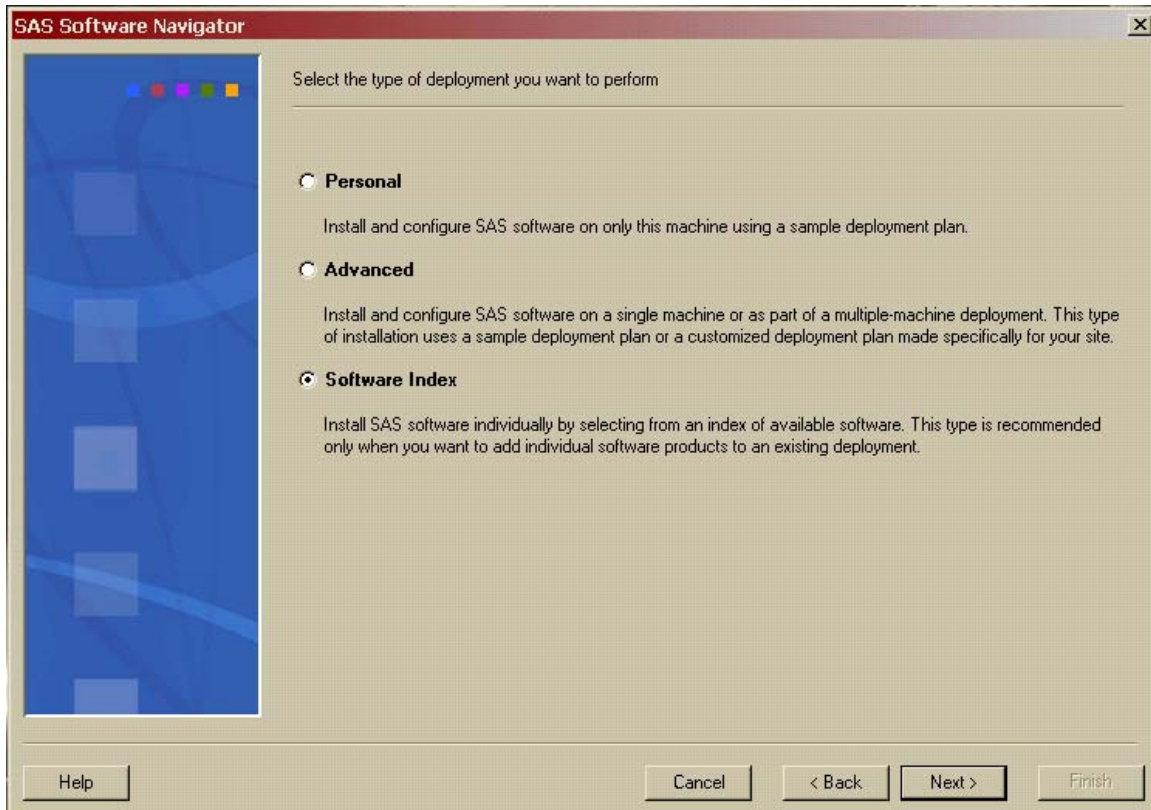
1. The entry point for the SAS Software Navigator is the **Choose Language** dialog. Select the language you wish to run the SAS Software Navigator from, using the pull-down list. Click **OK**.



2. After the SAS Software Navigator is loaded, it presents you with the choice of **Install and configure SAS software** or **Create a SAS Software Depot**. Select **Install and configure SAS software**, then click **Next**. If you have already created a SAS Software Depot and wish to install and configure your software, you should exit the SAS Software Navigator and launch it directly from the SAS Software Depot. This screen will not appear if you are running from a SAS Software Depot.

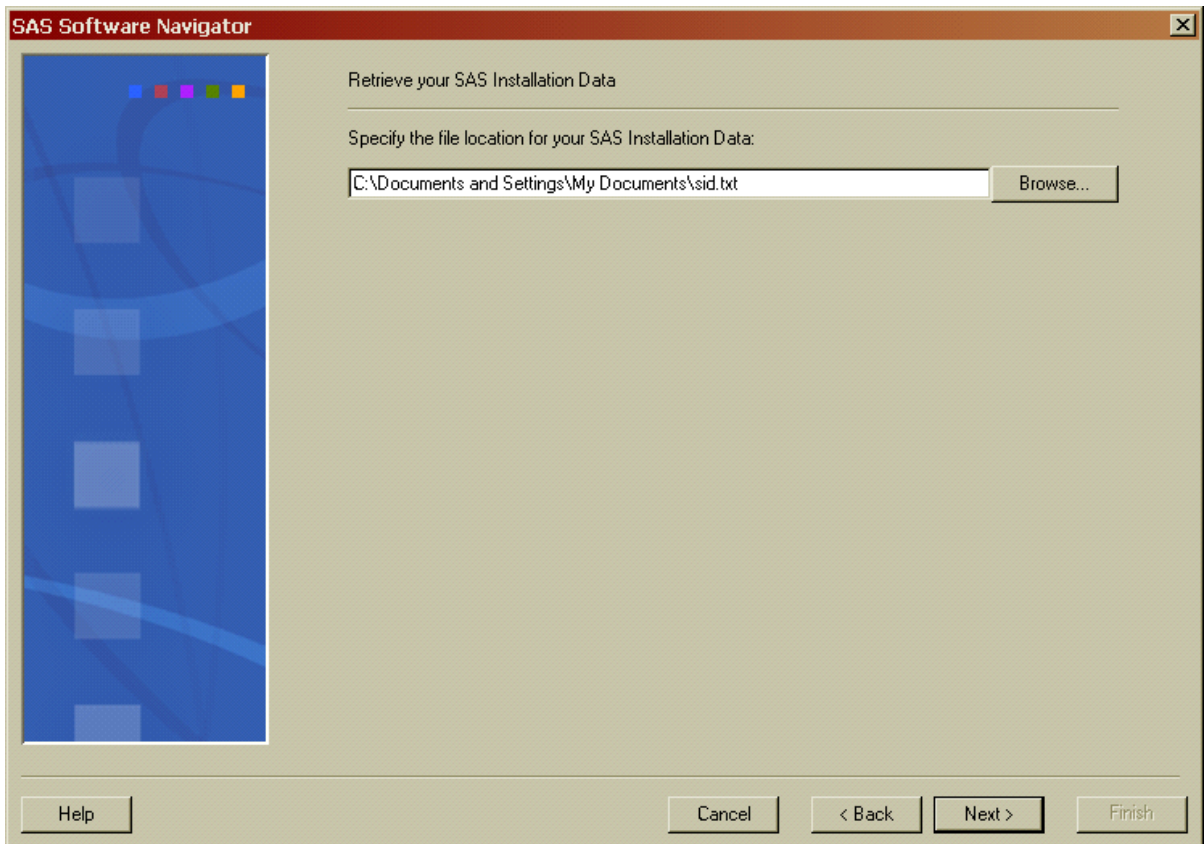


3. The **Select the type of deployment you want to perform** dialog opens. Select the **Software Index** radio button and click **Next**.

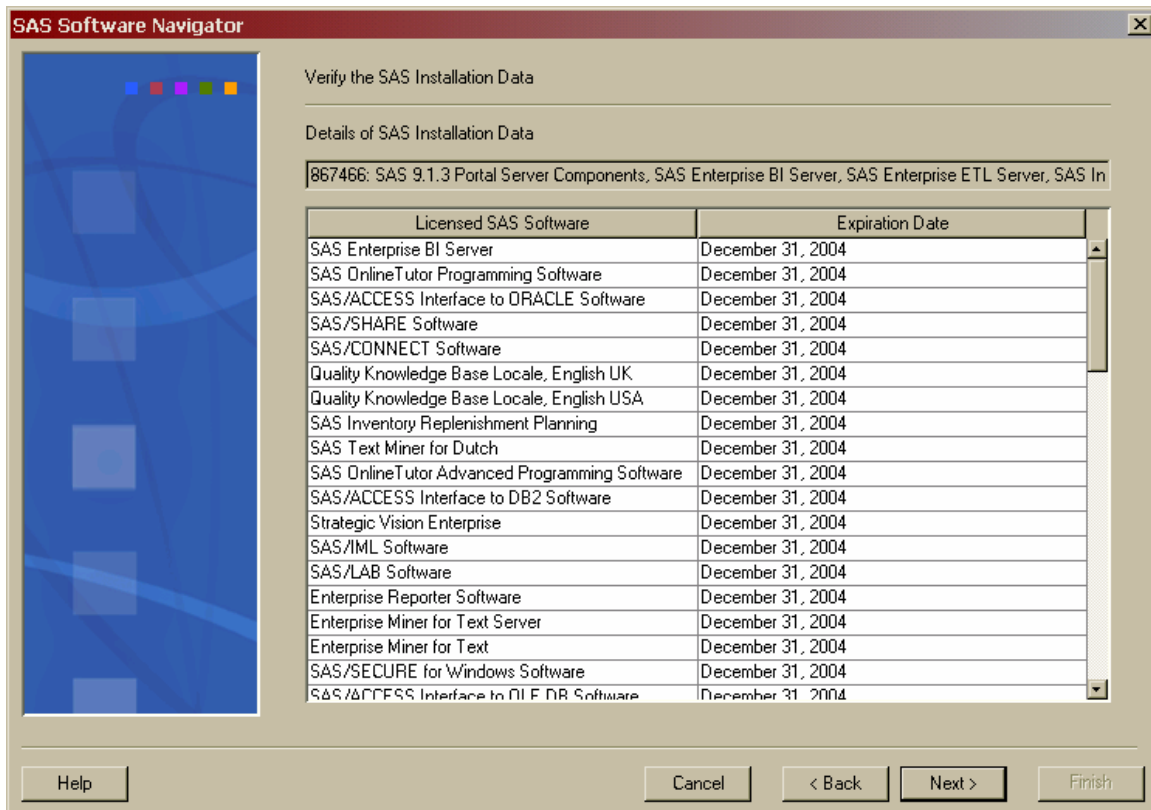


4. The **Retrieve your SAS Installation Data** dialog opens. In the text box, enter the location of your SAS Installation Data text file. You can also use the **Browse** button to search your system for the file. If you have retrieved your SAS Installation Data previously, the location you chose before will be the default location in the text box. Once the correct location has been entered into the text box, click **Next**.

If you cannot find your SAS Installation Data, you should go to the Web site <http://support.sas.com/adminservices-SID> to have your Software Order E-mail and its attached SAS Installation Data re-sent to the SAS Installation Representative at your site.

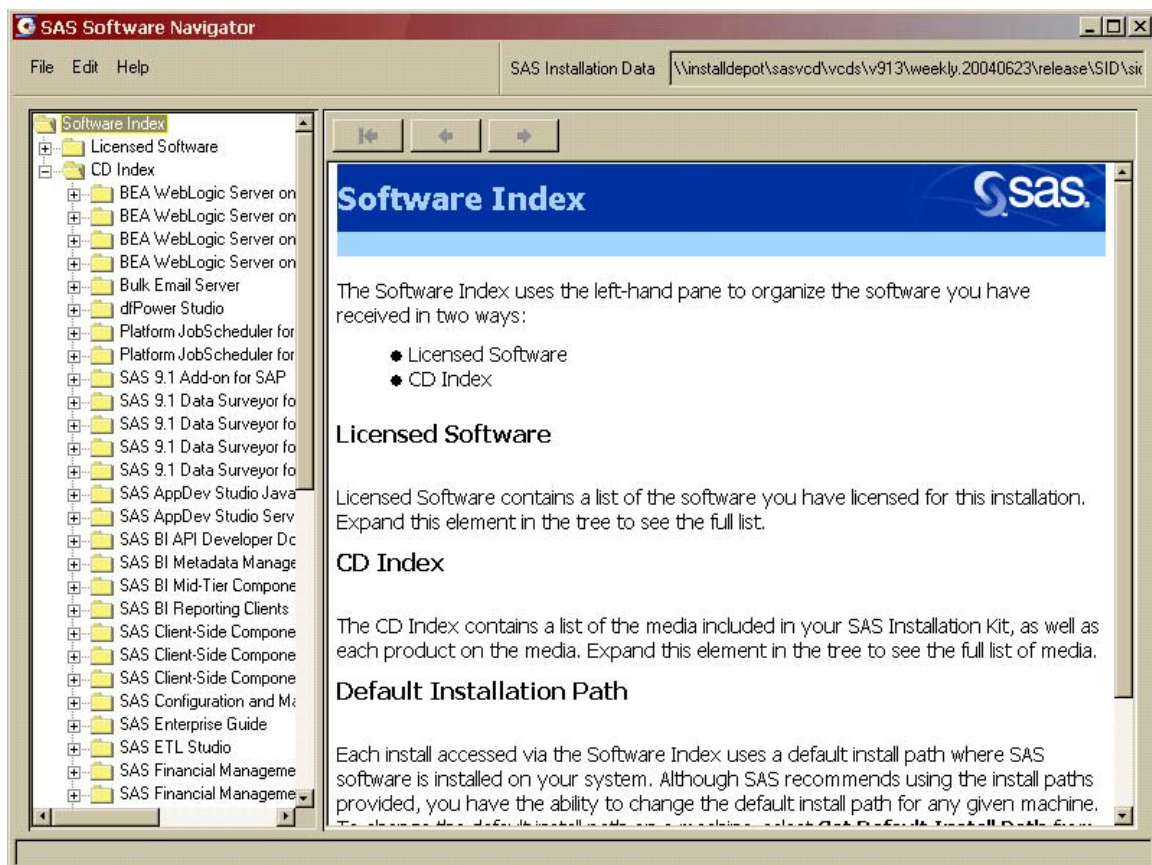


5. The **Verify the SAS Installation Data** dialog opens. Review the SAS installation Data that you have retrieved to ensure you have the file you want. If you do not have the appropriate SAS Installation Data, click **Back**. If you have the SAS Installation Data you intend to use, click **Next**.



6. The Software Index opens. Your customized view includes a list of Licensed Software and a CD Index in a tree diagram, and general instructions for how to use the Software Index in the right-hand pane. Click the licensed software you want to install on this machine and follow the instructions for installing and configuring it on this machine. Proceed through all the software you want to install on this machine. Alternately, you can look through the media included in your package by clicking on a media title in the CD Index and expanding the offerings on that CD. Each item you click in the left-hand pane will open more documentation in the right-hand pane until you reach the install hyperlinks. Click on the appropriate install hyperlink to begin installing the software you wish to install.

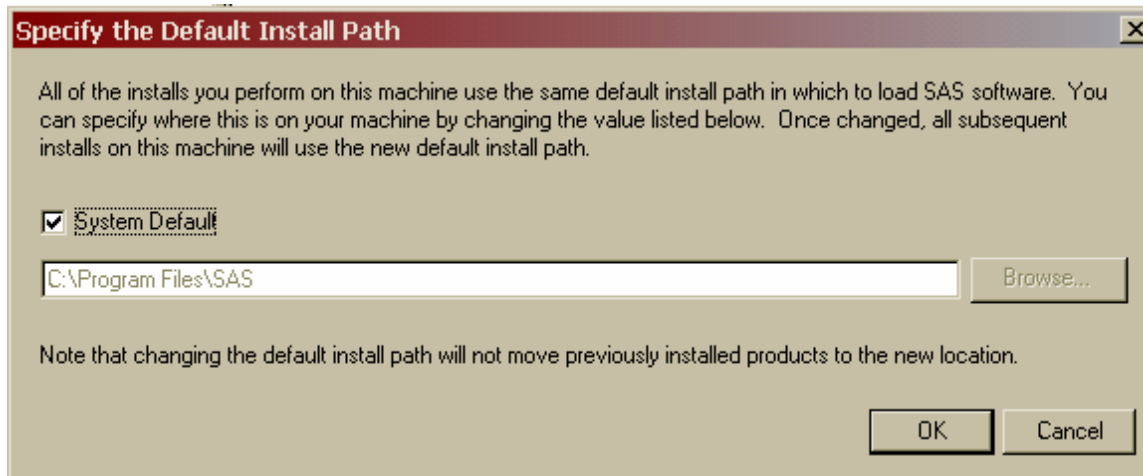
Note: Do not attempt to install your software in the same location as your SAS Software Depot.



7. After installing software onto your mid-tier or client tier, remember to apply the SAS 9.1.3 Service Pack to the same machine after the software is installed. To install the service pack, open Service Pack X Installer (where X is the service pack number) in the CD Index, then click on Mid-tier and Desktop Client Service Pack. Read the product description that opens in the right-hand pane, then click the **Install** link for the appropriate platform in the installation table. Repeat this step for every mid-tier and client machine you install software on.
8. Once you have installed all the software you require, close the Software Index by clicking the X in the top right corner or by selecting **File**→**Close**. A verification message will ask "Are you sure you want to close the SAS Software Navigator?". Click **Yes** to shut down the SAS Software Navigator.

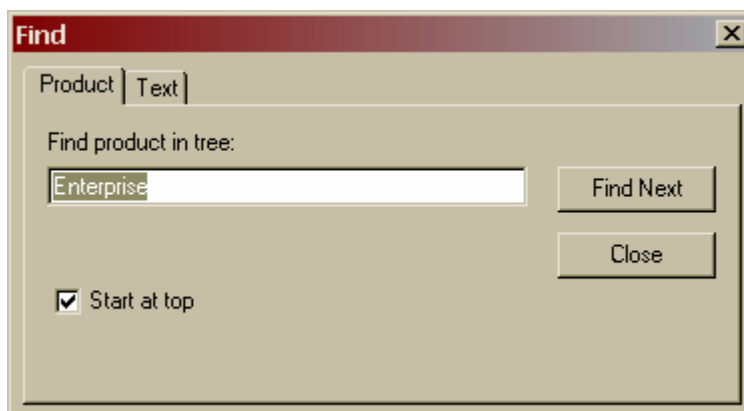
Set the Default Install Path

The default install path for most installs is passed from the SAS Software Navigator to each individual install. You can change the default install path by selecting **File**→**Set Default Install Path** from the SAS Software Navigator and entering an install path for each machine you want to install SAS software on. Checking the **System Default** check box confirms that the path you have entered will be the default for all SAS installs, whether via the Software Index or another method.



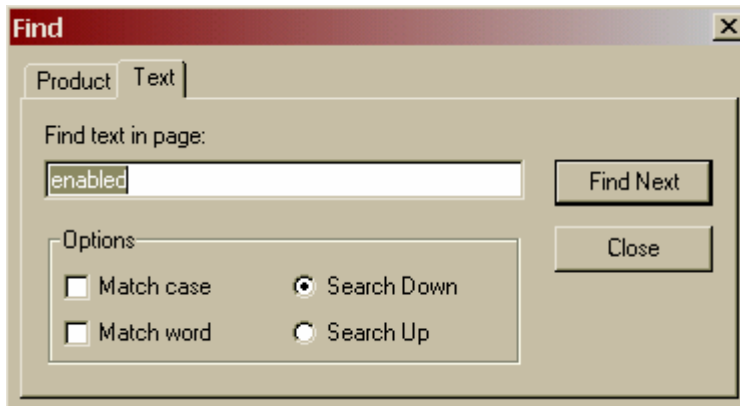
Find a Product or Specific Text

As you use the SAS Software Navigator, there will be references to other products, and you may be interested in jumping to the information about them. In order to find the relevant pages for each product, select **Edit**→**Find** (or just press **Ctrl + F**), and the **Find** dialog opens:



Enter a key word in the name of the software in the text box and press **Next**. The SAS Software Navigator will search the left pane, even going into unopened nodes to find a software name that includes the term you are searching for. Clicking **Find Next** continues the search down the product tree.

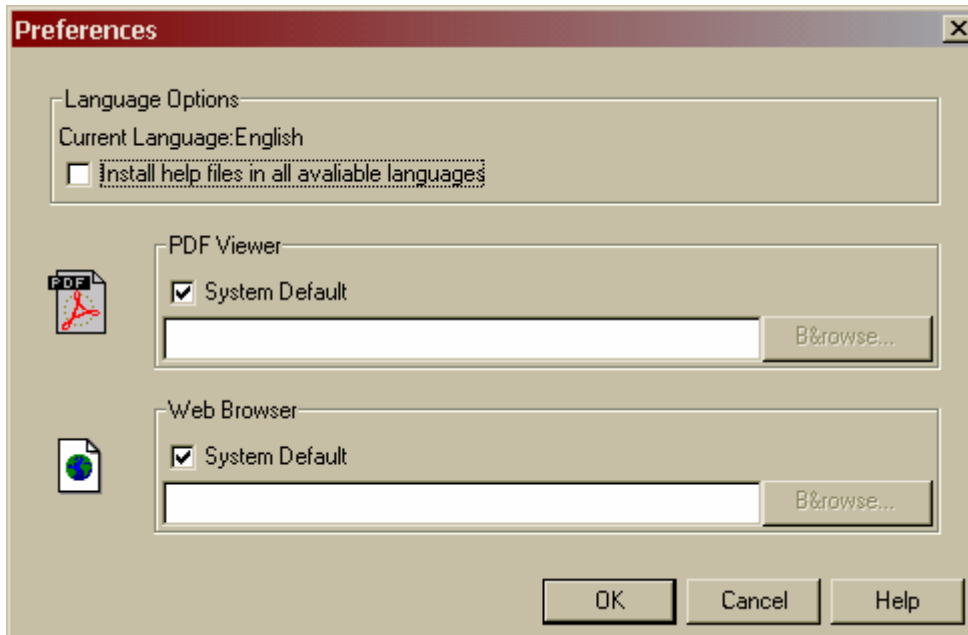
Selecting the **Text** tab opens its specific search dialog:



This dialog searches the page currently open in the right pane for the text in the text box. The standard search options are available.

Preferences

The **Preferences** dialogue is reached by selecting **Edit**→**Preferences**:



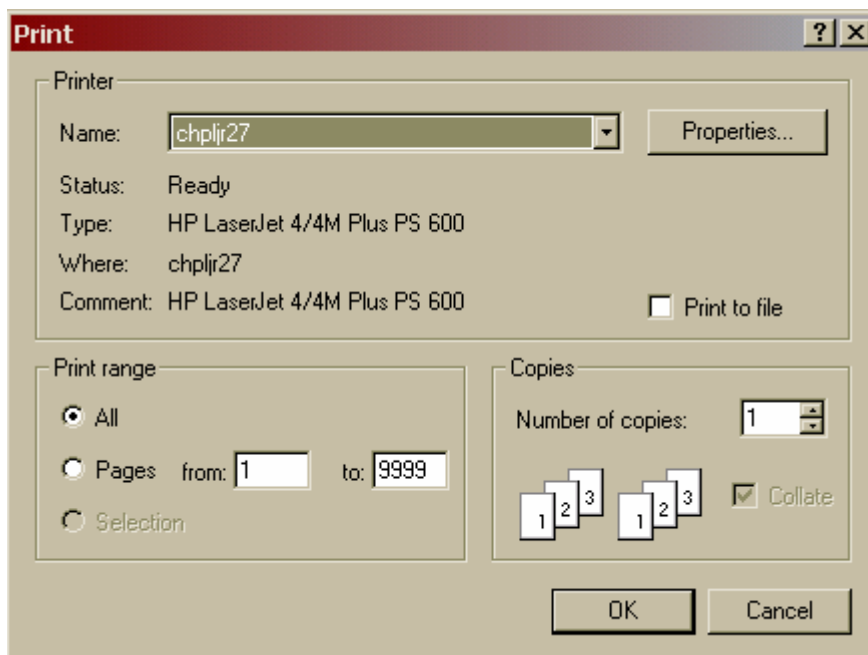
The **Language Options** box contains your options for language behavior in the SAS Software Navigator:

- The **Current Language** field lists the language that you selected when you first invoked the SAS Software Navigator. To change the current language, you must restart the SAS Software Navigator.
- The **Install multiple language versions of help** check box controls which Help files are loaded with various products. If this check box is unselected, only Help files for the language you selected to run the SAS Software Navigator will be loaded during product installation. However, if you check this check box, Help files in all available languages will be loaded during product installation.

The SAS Software Navigator will use your default PDF viewer and Web browser for viewing document files associated with the installation of SAS products. If you wish to change the tools used for either type of file, uncheck the **System Default** check box to enable the text box, then enter the directory location of your preferred tool or browse to it by using the **Browse** button. Click **OK** to save your changes.

Printing

If you wish to print the page that appears in the right pane for future reference, selecting **File**→**Print** opens the following window:



The **Print** options are the same as with most software. However, the SAS Software Navigator uses the print spooler software native to your particular platform; therefore the print spooler software must be installed and configured. If you try to print and receive a "No print service found" error, contact your system administrator to configure the printer software.

Chapter 6 – Troubleshooting Your SAS Software Navigator Installation

This chapter contains the solutions to the most common problems you might have when running the SAS Software Navigator. The recommendations are presented in the order in which they should be applied to your SAS Software Navigator installation.

Installing and Running the SAS Software Navigator

1. If you are running the SAS Software Navigator on Windows, is anti-virus software running?
SAS recommends that you install SAS software with any anti-virus software closed and deactivated. If you do not have permission to deactivate your anti-virus software, check with the Administrator of your machine or your IT department.
2. Delete everything from the Temp directory. The default location for the Temp Directory is listed below.

Windows

```
C:\Documents and Settings\\Local Settings\Temp
```

UNIX

```
/tmp/_setup_$$
```

3. Uninstall the SAS Private JRE if it is already installed.

Windows

Add/Remove Programs

UNIX

Run the uninstall from one level above the root installation directory of the JRE.

Usage:

```
$ <Installed software location>/_uninst/UninstSASJRE
```

4. If you had a previous installation, the SAS Software Navigator saves its preferences to a file named `ssnprefs.xml`. Installing again may be causing a conflict with your original `ssnprefs.xml`. Rename the following files by adding “.old” to the end of the file (for example: `ssnprefs.xml.old`):

Windows

```
C:\Documents and Settings\\ssnprefs.xml  
C:\Documents and Settings\\SSN.log  
C:\Documents and Settings\\SSN.log.lck
```

In addition, remove the following registry key if it exists:

```
HKEY_CURRENT_USER\Software\JavaSoft\Prefs\ssn91
```

UNIX

```
$HOME/.ssnprefs.xml  
$HOME/SSN.log  
$HOME/SSN.log.lck
```

5. Make sure you have enough hard drive space. To check the amount of free space, perform the following:

Windows

Open the **Start**→**Run** menu and type `explorer` in the text box. Click **OK**, then click on My Computer and highlight the C:\ drive. Right-click and select Properties. Towards the middle of the window that opens, you should find how much available free space you have.

UNIX

Run the appropriate **df** command.

Example:

```
$ df -k /usr/local/SAS
```

If you are low on disk drive space, free up some space before continuing the installation. On Windows, for example, empty your recycle bin, delete any temporary Internet files, uninstall any programs you no longer use, and delete any large files that may no longer be needed.

6. **Windows only.** The SAS Software Navigator may start and stop during installation when there is a "S" in the installation depot path. Rename the path and remove the S. SAS Note SN-013922 discusses this issue and can be found at <http://support.sas.com/techsup/unotes/SN/013/013922.html>.
7. **Windows only.** The SAS Software Navigator may also start and stop during installation when the account that is being used to install SAS is a member of the Systems Administrator group but is not a local account on that particular PC. In such a case, the account being used did not have all the necessary permissions. The following Warning might appear in the Event Viewer when this happens:

```
Event Type: Warning
Event Source: WinMgmt
Event Category: None
Event ID: 63
Date: 1/4/2005
Time: 12:39:58 PM
User: NT AUTHORITY\SYSTEM
Computer: TEST
Description:
A provider, PerfProv, has been registered in the WMI namespace,
Root\default, to use the LocalSystem account. This account is
privileged and the provider may cause a security violation if it
does not correctly impersonate user requests.
```

For more information, see the Help and Support Center at <http://go.microsoft.com/fwlink/events.asp>.

When you use the Local System Administrators account, the SAS Software Navigator allows you to proceed with your installation. For additional information on the differences between being administrator of the machine versus being part of the administrator group, refer to SAS Note SN-005055 at <http://support.sas.com/techsup/unotes/SN/005/005055.html>.

8. Are you installing from a SAS Software Depot or from the original CDs? If it's from the SAS Software Depot, try installing from the CDs. If it's from CDs, try installing from the SAS Software Depot.

9. **Windows only.** Check the Event Viewer for errors. The Event Viewer is located in the Control Panel; click on **Start**→**Settings**→**Control Panel**→**Administrative Tools**→**Event Viewer**.
10. **Windows only.** Refer to SAS Note SN-012858 at <http://support.sas.com/techsup/unotes/SN/012/012858.html> for the steps to resolve a possible Oracle Java conflict.

Glossary

- **.sasprefs file**
A text file created in \$HOME of the id performing the SAS 9.1.3 foundation containing information about the install, e.g. the location of !SASROOT or the JRE.
- **Automatic Post-Processing**
An installation phase where specific configuration tasks are performed by SAS Setup.
- **Bourne sub-shell**
A Bourne sub-shell is a separate process that inherits characteristics from its parent process, such as user name, file protection, permissions, etc.
- **CD Set**
The set of CDs that make up your software order.
- **Configuration File**
A file containing SAS 9.1.3 Foundation options that alter the default behavior of SAS 9.1.3 Foundation. A configuration file is created during installation of SAS 9.1.3 Foundation in !SASROOT/sasv9.cfg.
- **DBCS**
Double-byte character set support in SAS 9.1.3 Foundation.
- **History File**
Control file used by SAS Setup containing a history of what components have been installed.
- **Hotfix**
A replacement file that fixes a specific problem in SAS 9.1.3 Foundation. Hotfix files can be downloaded from the Technical Support Web site.
- **Install Center Web site**
A Web site located on SAS's external site that always has the latest release documentation available for download. Located at <http://support.sas.com/documentation/installcenter/913/kit/index.html>.
- **Installation Kit**
The Installation Kit contains the installation components of your software order. It contains the *SAS Order Information*, *System Requirements*, *Alert Notes*, *Installation Instructions*, *Configuration Guide*, and installation CDs.
- **Invocation point**
A file that launches an application. For example, the primary invocation point for SAS 9.1.3 Foundation is !SASROOT/sas.

- **Java Development Kit (JDK)**
Software from Sun that includes both a compiler for creating Java bytecode and a Java Runtime Environment RE for running the compiled bytecode.
- **Java Runtime Environment (JRE)**
The JRE is used to run Java applications. It is freely distributable and SAS provides a specific version that has been tested with all SAS software. The version provided by SAS is called the SAS Private JRE.
- **Localization**
The translation of SAS 9.1.3 Foundation into languages local to a country or region.
- **Mount point**
A local directory that references a mounted CD.
- **National Language Support (NLS)**
Localized components of SAS 9.1.3 Foundation for various languages. National Language Support for SAS 9.1.3 Foundation does not include installation messages, which are always presented in English.
- **Order Number**
A number associated with your software order and used as input for downloading your current SAS Installation Data. Your Order Number is printed on the *SAS Order Information* in your Installation Kit, as well as included in the Software Order E-mail sent to the SAS Installation Representative at your site. The Order Number is also available on the label of your installation kit.
- **Root account**
The root account on UNIX is required to manually mount and unmount CDs.
- **SAS 9.1.3 Foundation**
The combination of Base SAS 9.1.3 and the server-side products you have ordered that are installed at the same time as Base SAS 9.1.3.
- **SAS account**
The account on UNIX that should be used for software installation.
- **SAS Installation Data**
Data customized specifically for your site used to install and run SAS 9.1.3 Foundation. You obtain your SAS Installation Data as an attachment to your Software Order E-mail.
- **SAS Installation Key**
The key assigned to your site that enables secure access to the Internet to download your current SAS Installation Data. Your SAS Installation Key is printed on the *SAS Order Information* in your Installation Kit, as well as included in the Software Order E-mail sent to the SAS Installation Representative at your site.
- **SAS Installation Representative**
The person responsible for installing and maintaining SAS software for UNIX systems at your site.

- **SAS Private JRE**
A fully functional Java Runtime Environment, excluding the cryptography extension jars, that has been validated to work with SAS 9.1.3 products and is provided by the SAS 9.1.3 Foundation install. The version varies across the supported UNIX operating systems.
- **SAS Setup**
The application used to install and maintain SAS 9.1.3 Foundation. SAS Setup is supplied on the *SAS Setup Disk*, as well as installed along with SAS 9.1.3 Foundation.
- **SAS Software Depot**
A networked copy of your SAS media, accessed and created by the SAS Software Navigator.
- **SAS Software Navigator**
A tool for connecting the various pieces of high-level solutions and product offerings throughout your installation.
- **sasenv file**
This file allows you to customize UNIX environment variable definitions for your site.
- **SASROOT**
The root directory of SAS 9.1.3 Foundation where all SAS files and subdirectories are loaded, also referred to as !SASROOT.
- **SETINIT**
The SETINIT is supplied by the SAS Contracts Division and is used to authorize SAS 9.1.3 Foundation at your site. The SETINIT is delivered as part of the SAS Installation Data.
- **Shared Library Path**
SAS 9.1.3 Foundation uses your shared library path to access executables for other third-party software. For example, if you have Oracle installed on your Solaris system, SAS/ACCESS Interface to Oracle software uses the shared library path LD_LIBRARY_PATH to access Oracle files.
- **Software Order E-mail**
An e-mail message sent by SAS to the SAS Installation Representative that includes your SAS Installation Data, your SAS Installation Key and Order Number, and a list of SAS Software licensed by your site.
- **Software Updates**
Replacement file containing fixes and enhancements to SAS 9.1.3 Foundation. Software updates are included in your Installation Kit when appropriate.
- **Symbolic Link**
A link to an existing file or directory. Once created, you can manipulate the link as if it were the original file. Symbolic links are created using the `ln -s` command.
- **Target Directory**
The directory location where you intend to install SAS 9.1.3 Foundation. This is also referred to as SASROOT.

- **TOC File**
Control file used by SAS Setup as an index of installable components.
- **TS Level**
The Technical Support level assigned to a given release of SAS 9.1.3 Foundation.



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