

## Installing SAS 9.4

We currently have the SAS Education Analytical Suite (**EAS**), which is a bundled package of SAS components designed to meet teaching and research needs. USC has a university-wide license for unlimited distribution to eligible users (current faculty, staff, and students).

### SAS Vocabulary

- Depot – A container that holds all of our licenses and all of our installation files from SAS. We create installation files by subsetting these for different operating systems and different applications.
- SID or Setinit – Text files that are applied to renew SAS each year
- Technical Site Number – these are associated with order numbers, but different than order numbers and identify a given SAS installation packages for a given OS and configuration.

### Some Important SAS EAS Components

- **Base SAS\*** – Main API for programming and analysis.
- **SAS Enterprise Guide\*** – Point-and-click GUI for using Base SAS
- **SAS Enterprise Miner\*** – Data mining interface
- SAS IML Studio – Flexible interface for using SAS/STAT and SAS/GRAPH. Capability to interface with R language.
- SAS Power and Sample Size
- SAS Rapid Predictive Modeler

### Recommended Installation Process:

Install SAS from a hard drive or flash drive

- Due to its large size, SAS is prone to corruption when copying files from a computer to a disk, or from a disk to a computer.
- SAS installation files should be checked for corruption when loaded onto a new drive (this will be further discussed).
- Any flash drive or hard drive with adequate space will work for installing SAS, but **smaller drives tend to install faster**.
- We commonly use Sandisk 64 GB flash drives to complete installations and maintain the SAS depots.

## Subsetting SAS Software

- We commonly subset our SAS Depots to reduce the file size (from 19.6 GB to ~8 GB). As a SAS Specialist, you can also subset the SAS Depots to fit the needs of your customers.
- The *SAS Deployment Wizard*, which is the application used for installing SAS, can be used to subset SAS Software Orders.
- Subsets can be made using any or all of the following characteristics:
  - Operating System
  - SAS products
  - Language

To create a SAS subset:

1. Launch the **SAS Deployment Wizard**
2. For the Deployment Task, select **Create or Add to a SAS Software Depot**
3. Choose the products you wish to subset by. You may create a subset by any or all of the following:
  1. By operating system
  2. By SAS products
  3. By product languages
4. Refine your subset by further specifying characteristics
5. Choose a location to create the subset
6. On the Final Review page, review your choices then click **Start**.
7. The subsetting process normally takes 15-20 minutes to complete.

## SAS Depot Checker

The SAS depot checker is an application used to screen and validate installation files and check file integrity. This application should be used after subsetting SAS, and after copying installation files to a computer or drive for storage.

The depot checker should also be used if errors appear during an installation that indicate incomplete installation. If errors are found, you may need a new set of installation files.

The SAS Depot Checker will:

- Total the number of files found in a depot
- List the files found and their directory path
- List the total number of files missing from a depot
- Lists and totals the number of orders found
- Lists and totals the number of SAS installation data (SID) files found
- List the files that are the wrong size and specify what the correct sizes should be
- List the files in which checksums are incorrect
- **Indicate whether any pertinent errors were found that will inhibit the installation of the files**

To run the depot checker:

1. Double click the **SASDepotCheck.exe** application within your installation files.
2. Navigate to the top-level directory of your SAS Software Depot.
3. Specify a location to save the results.
4. Specify whether you want to keep checking the Depot after 10 problems have been found.

## SAS System Requirements

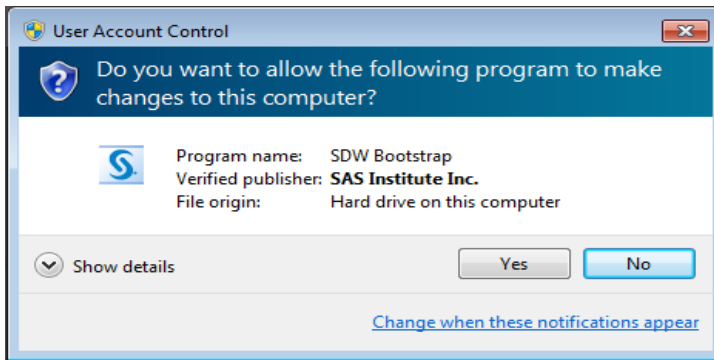
SAS is compatible with many Windows, Linux, and Solaris operating systems. SAS is not compatible with Macintosh OS X but OS X users can install SAS to a Mac running Windows via Bootcamp or a Virtual Machine.

*Failure to meet system requirements will result in a failed installation or corrupted program, if installed.*

For a complete list of systems requirements, go to the SAS Support Pages:  
<http://support.sas.com/resources/sysreq/index.html>

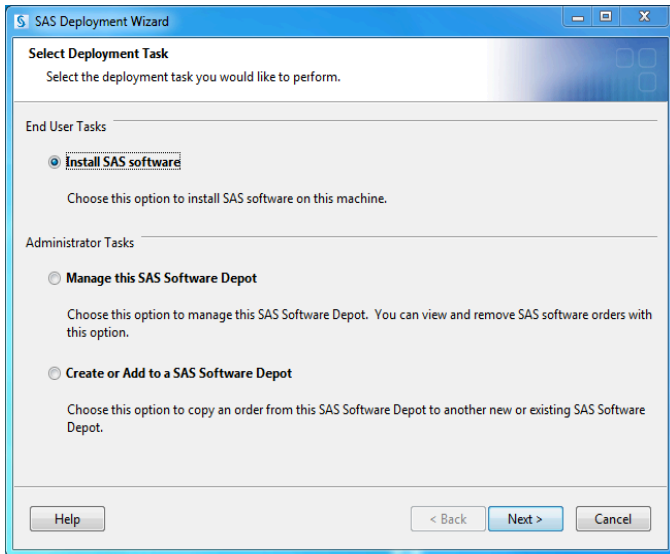
## Installing SAS

1. From the SAS installation drive, double click the **setup.exe** application.
2. When prompted by User Account Control, click **Yes**.

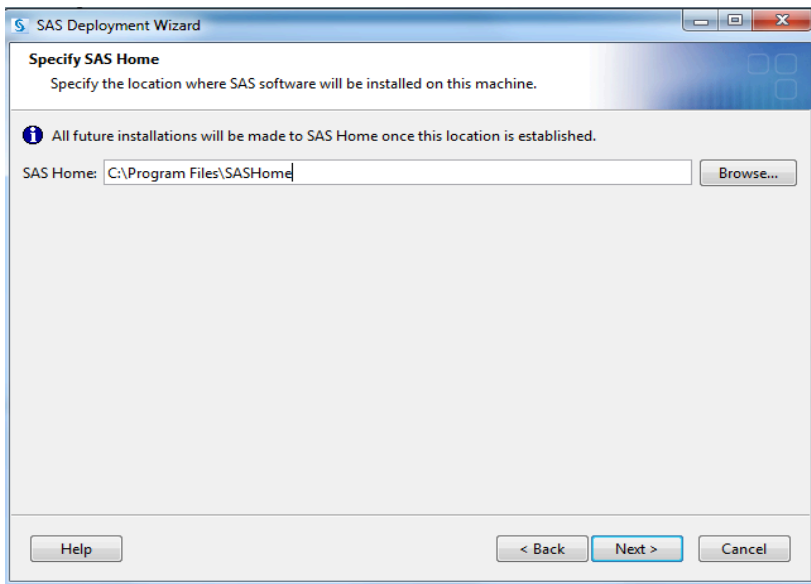


3. Select the language you would like to view the installation wizard in, then click **OK**.

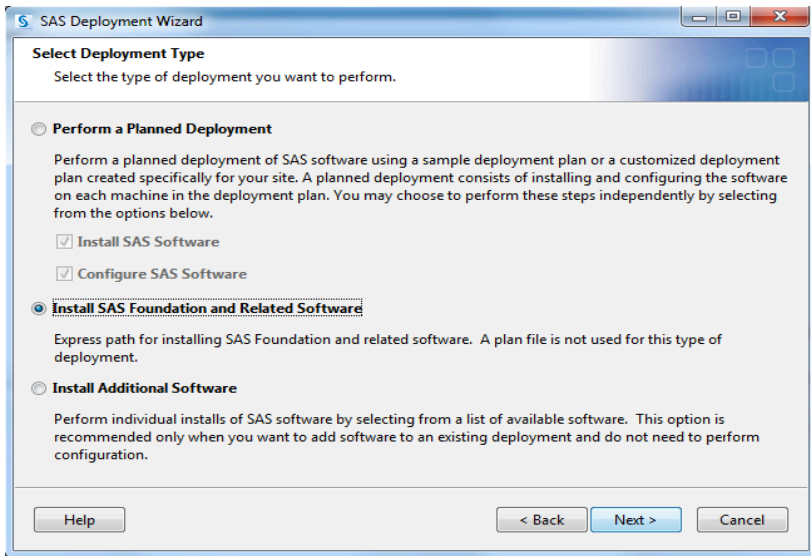
4. At the Select Deployment Task screen, select **Install SAS Software**. Then click **Next**.



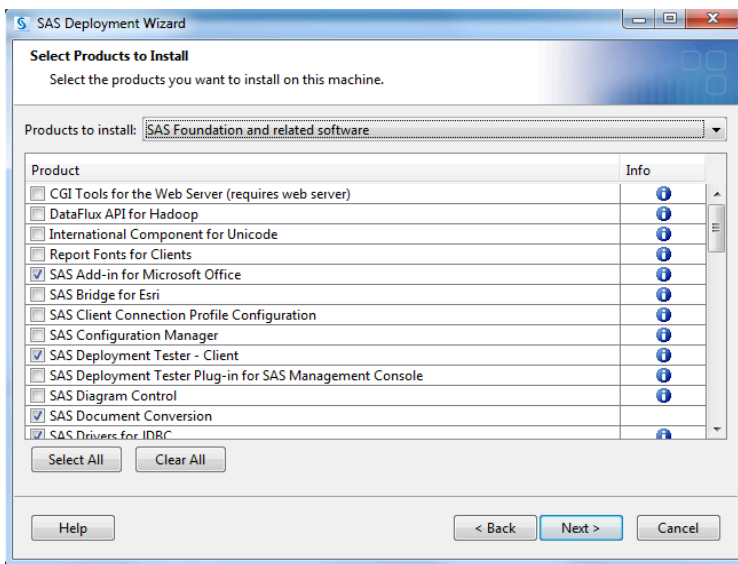
5. Specify the location where you would like to install SAS on your machine. Note: By default, SAS will automatically create a new folder in you Program Files for this purpose. Click **Next**.



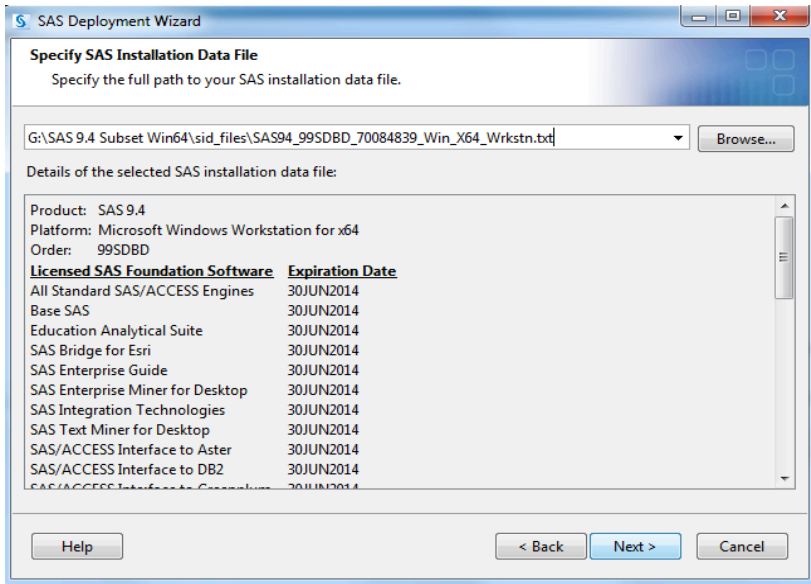
6. Select **Install SAS Foundation and Related Software**. Then click **Next**



7. Select the products you wish to install. When you are finished, click **Next**.  
Note: the default package for SAS 9.4 is already selected.



8. The SAS installation data file should already be applied. Check to make sure the expiration date has not passed. Click **Next**.

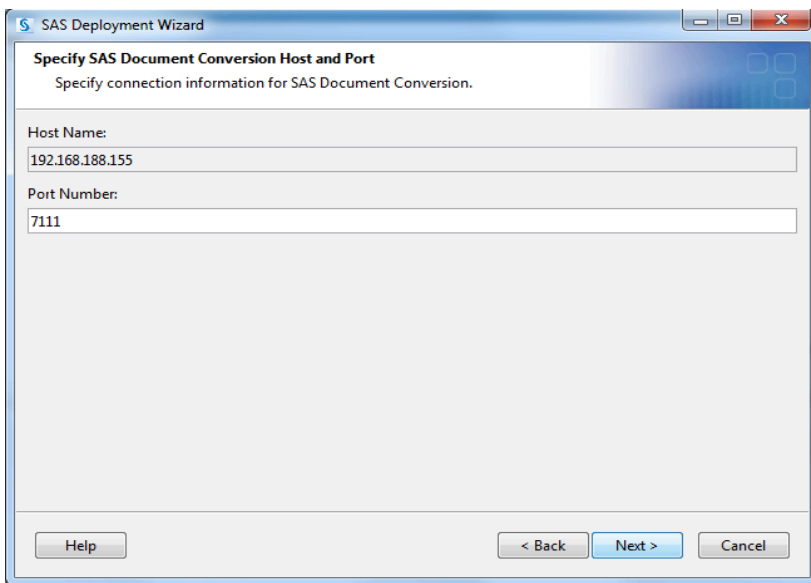


9. On the language support page, click **Next**.

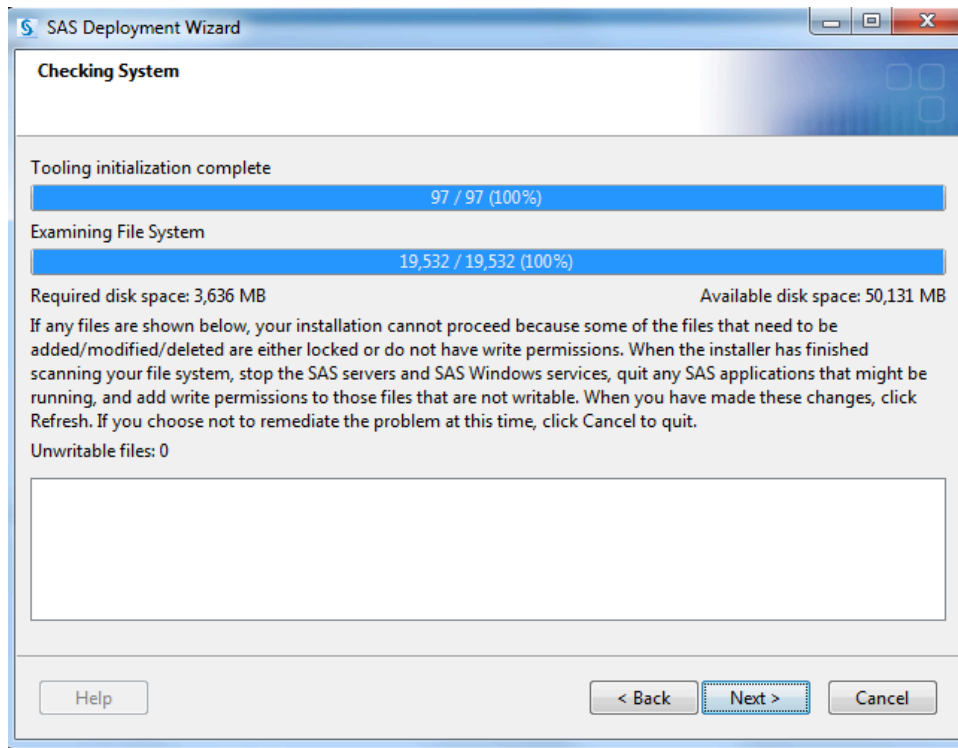
10. On the regional settings page, click **Next**

11. For the SAS Environments URL, click **Next**. It is okay to leave the field blank.

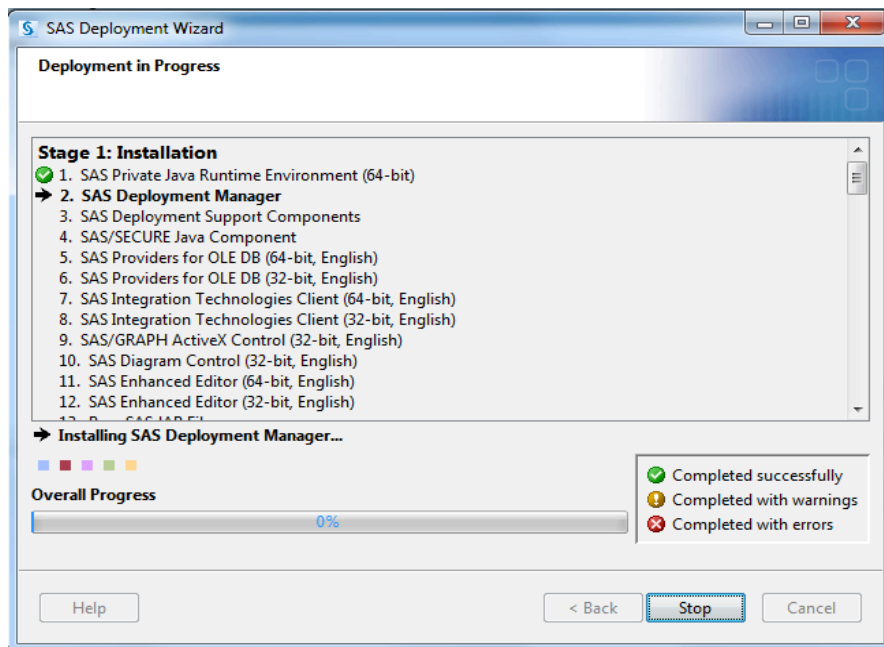
12. SAS will automatically fill-in your Host Name and Port Number. Click **Next**.



13. The SAS installation wizard will screen your computer for files that may interfere with the installation process. When it is done, click **Next**.



14. Click **Start** to begin the SAS installation. Depending on the machine, the installation may ask you to restart the computer. Please note: this process takes **30-90 minutes to complete**.



- As each SAS component successfully installs you will see a green check next to its name. If there is a problem installing any component you will see a red check. It is important to troubleshoot *any* errors or issues that the red checks alert you to before sending the customer away with his or her computer because even though it may seem like it is only one component that has an issue, experience has shown us that the entire installation will be problematic if the issue is not resolved.
- Installation time varies by operating system, but you should tell the customer to expect an installation time of approximately **1 hour**.
- Older machines and operating systems typically take more time, as do machines with low storage and RAM.
- Some machines may need to update before SAS can be installed. The SAS deployment wizard will notify you of any necessary updates.
- It is common for the machine to reboot during the installation. For this reason, it is important to have the customer close by during the installation or obtain their administrative password, so that you may log back on to the computer after the reboot.

After installing SAS, open the program to verify that it is working. By default, SAS will install in the **Programs** folder on machines.

Once SAS has opened, run the sample code that we have provided you with to test the basic features of SAS.

If the installation has failed, or the program is missing any components, you will see an error when running the sample code.

```

45
46 PROC PRINT / DATA = one;
      -
      22
      ----
      202
ERROR 22-322: Syntax error, expecting one of the following: ;, DATA, DOUBLE, HEADING, LABEL, N,
NOOBS, OBS, ROUND, ROWS, SPLIT, STYLE, UNIFORM, WIDTH.
ERROR 202-322: The option or parameter is not recognized and will be ignored.
47 RUN;

NOTE: The SAS System stopped processing this step because of errors.
NOTE: PROCEDURE PRINT used (Total process time):
      real time          0.06 seconds
      cpu time           0.01 seconds

```

Errors appear in red text in the **Log** view of SAS, and should briefly detail the issue.

## SAS Licenses

To license SAS software, SAS Installation Data (SID) files are used.

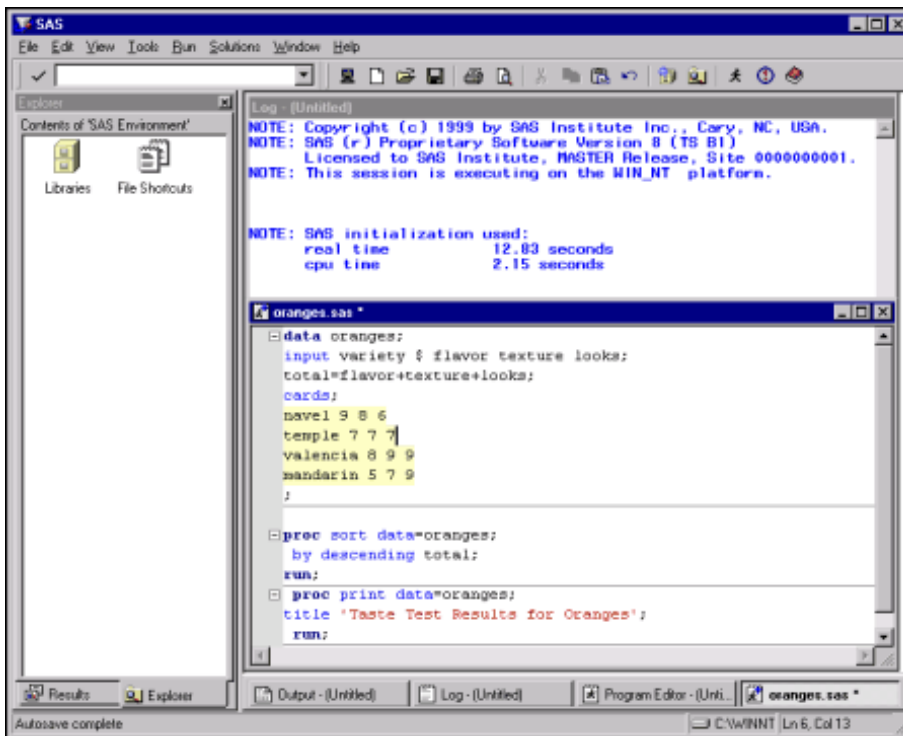
- These text files are valid for one year and expire on June 30.
- SAS software will notify users of impending expiration within 45 days of the expiration date and will advise them to contact their SAS administrator.



- ITS will make the files available for download, and we will notify you as soon as they are available.
- USC Information Technology Services provides the SAS SID files for download at:  
<http://www.usc.edu/its/stats/sas/renewal.html>

To renew SAS software, it is necessary to know the customer's Technical Site Number.

- These are numbers used by SAS to identify customers, operating systems, orders, and configurations for a given installation.
- This number is found in the SAS log in the upper right corner when opening SAS.
- For more information on identifying your Tech Site Number, visit <http://support.sas.com/techsup/contact/setinit2.html>



1. Go to the SAS License Files page (<http://www.usc.edu/its/stats/sas/licensefiles.html>) and download the current license file at no cost.
2. Right-click the SETINIT file for your operating system and save the file to your desktop. This file will be saved as a text (.txt) file.
3. Close SAS
4. On Windows XP machines, click Start > Programs > SAS > SAS License Renewal & Utilities > Renew SAS Software. On Windows 7, click Start > All Programs > SAS > SAS License Renewal & Utilities > Renew SAS Software.

5. Browse to the SAS installation data file (SID file) that you saved on your machine previously. Click Next.
6. Verify the operating system and SAS products that you have installed and click Ok.
7. Click Renew.
8. If the license renewal was successful, the following message is displayed: The setinit was successfully applied.

**Technical Support:**

Although ITS is unable to provide technical support on the installation of SAS, the company provides a comprehensive knowledge base for finding solutions to installation errors, runtime problems, and other issues such as those you may find with the depot checker.

To access these resources, please visit <http://support.sas.com>

If you are unable to find a solution to an issue on support.sas.com, you can reach a SAS representative at:

919-677-8008

[support@sas.com](mailto:support@sas.com)

- Support hours for new questions: M-F 9 a.m. to 8 p.m. Eastern
- Limited support for new questions: M-F 5 p.m. to 8 p.m.
- Support hours for questions with an assigned tracking number: M-F 9 a.m. to 8 p.m. Eastern