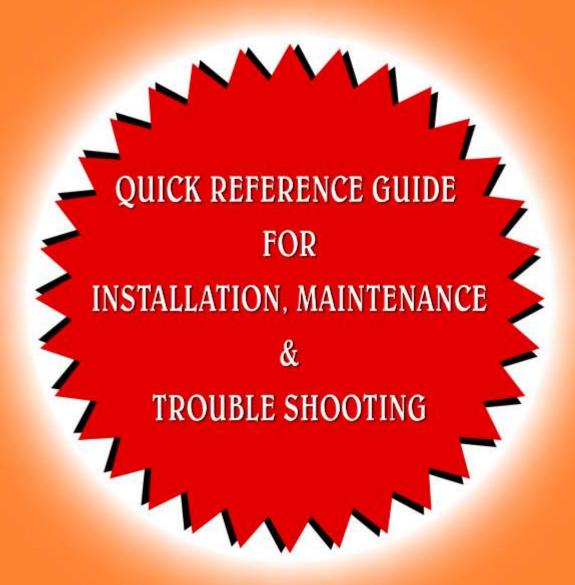


Strengthening Statistical Computing for NARS (Platform for Statistical Computing)





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For creating a healthy statistical computing environment for the researchers in National Agricultural Research System (NARS), a high end general purpose statistical package for perpetual use for 151 organizations has been procured for undertaking a probing, in-depth and accurate analysis of data generated from agricultural research under the NAIP Consortium "Strengthening Statistical Computing for NARS". This consortium has provided the platform for closer interactions among all NARS organizations. For capacity building of researchers in the usage of high end statistical computing facility and statistical techniques, several training programmes were conducted. To resolve the installation and maintenance issues, this quick reference guide has been prepared in the form of questions and answers. The major contributors in compilation and preparation of this document are Dr. Rajender Parsad, Dr. A. Dhandapani, Shri RS Tomar and Shri Sachin Kumar. Other contributors include all members of the Project Team.

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Quick Reference Guide: Installation, Maintenance and Trouble Shooting

1. Introduction

For creating a healthy statistical computing environment for the researchers in National Agricultural Research System (NARS), a high end general purpose statistical package for perpetual use has been procured for undertaking a probing, in-depth and accurate analysis of data generated from agricultural research. The statistical package can be installed on multiple official machines in NARS. This has already been installed on more than 2300 machines across 151 NARS organizations. During installation and maintenance several common issues have been faced by the researchers across NARS organizations.

This bulletin is an attempt to answer some questions which are important for installation and maintenance of SAS®/JMP®/JMP® Genomics. It also includes trouble shooting steps for errors that may occur frequently.

2. Question-Answers

In this section, we present the reference guide in the form of question-answers.

1. Which operating systems are supported by different versions of SAS® available with NARS?

Operating System	Version	SAS® 9.2 M2	SAS® 9.3	Remarks
Windows® XP	Home	Not Supported	Not Supported	-
	Professional	Supported	Supported	Recommended Microsoft® Windows® SP2 or higher
	Media Center	Supported	Supported	Recommended Microsoft® Windows® SP2 or higher
	Tablet PC	Supported	Supported	Recommended Microsoft Windows SP2 or higher
	Professional x64	Supported	Supported	Recommended Microsoft® Windows® SP2 or higher
Windows® Vista	Home Basic 32-bit and x64	Not Supported	Not Supported	-
	Home Premium 32-bit and x64	Not Supported	Not Supported	-
	Ultimate	Supported	Supported	-
	Ultimate x64	Supported	Supported	-
	Business	Supported	Supported	
	Business x64	Supported	Supported	-
	Enterprise	Supported	Supported	-
	Enterprise x64	Supported	Supported	-



Windows® 7	Windows® 7	Not Supported	Not Supported	-
	Starter 32-bit Windows® 7 Home Basic 32-bit & 64-bit	Not Supported	Not Supported	-
	Windows® 7 Home Premium 32-bit & 64-bit	Supported	Supported	-
	Windows® 7 Professional 32-bit & 64-bit	Supported	Supported	-
	Windows® 7 Enterprise 32-bit & 64-bit	Supported	Supported	-
	Windows® 7 Ultimate 32-bit & 64-bit	Supported	Supported	-
Windows® 2003 Server	Standard Edition 32-bit & 64-bit	Supported	Supported	Recommended Microsoft® Windows® SP1 or higher
	Standard Edition R2 32-bit & 64-bit	Supported	Supported	Recommended Microsoft® Windows® SP1 or higher
	Standard Edition R2 X86, x64 32-bit & 64-bit	Supported	Supported	-
	Enterprise Edition 32-bit & 64-bit	Supported	Supported	-
	Enterprise Edition R2 32-bit & 64-bit	Supported	Supported	-
	Enterprise Edition for Itanium-based System	Not Supported	Not Supported	-
Windows® 2008 Server	Standard Edition 32-bit X86, R2 x64, x64	Supported	Supported	-
	Enterprise Edition 32-bit X86, R2 x64, x64	Supported	Supported	-

2. What are the minimum system requirements to install SAS® on the machine?

The following table provides the minimum system requirements based on different installation scenario



Scenario	Disk Space Requirement Minimum/Recommended	RAM Minimum/Recommended	
STANDALONE			
1. JMP® on Desktop	1 GB	256 MB/512 MB	
2. JMP® and JMP® Genomics on Desktop	1/2 GB	256 MB/512 MB	
3. Only Clients SAS® EG along-with JMP® SDS and JMP® Genomics on Desktop	2/3 GB	512 MB/1 GB	
4. E-miner Client along-with JMP®, JMP® Genomics on Desktop	7/10 GB	512 MB/1 GB	
5. SAS® Standalone without E-miner Client and with JMP® and JMP® Genomics on Desktop	5/8 GB	512 MB/1 GB	
6. SAS® with JMP® SDS, JMP® Genomics, E-miner Server on Desktop	10/12 GB	2 GB/4 GB	
NETWORK SERVER			
1. SAS®, JMP®, JMP® Genomics, E-miner (All in Server Mode)	10/12 GB	4 GB/8 GB	

3. How to identify the Windows® operating system version and other system details of your machine?

The Windows® operating system version and other system details can be seen by right clicking the "My Computer" icon and selecting the "Properties" option from the right click menu. If the operating system version and other minimum system requirements are met as per the details given in the installation manual and in this document then one can proceed with the SAS installation. It is always a good practice to check the compatibility of the system before starting the installation process.

4. Why do we need to specify a different path while installing JDK and JRE and while setting JAVA_HOME?

SAS® does not recognize the space in the path of the JAVA. If there is a space in the path, then the JAVA applications do not recognize the correct path and places % wherever there is a space.

5. Can I type JAVA_HOME in lower case?

JAVA_HOME should always be in Upper Case for the OS to recognize the same.

6. Does installation of SAS® E-miner 7.1 client require JBoss?

No, SAS® E-miner 7.1 client does not require JBoss but it does require the environment URL.

7. Is ArcGIS® required to install SAS® Bridge to ESRI?

Yes, to successfully install SAS® Bridge to ESRI, one needs to have ArcGIS® pre-installed on the machine/server.



8. Before Installing Enterprise Guide do we still require to install Microsoft® VC++ redistributables in SAS 9.3 as it was required in SAS® 9.2 M2?

Microsoft® VC++ redistributables and .Net Frameworks are still required, but now they are automatically installed during Enterprise Guide 4.3 or 5.1 Installation in SAS 9.3. Hence, you need not have to install it separately.

In case you are getting errors while installing the Windows pre-requisites like VC++ redistributables or .Net 3 or 4, then you are advised to download it from Microsoft website and install it prior to installing SAS.

9. Does one require separate Software Depot for Windows for 32-bit and Windows 64-bit machines? Yes, a separate depot is required for installing on 64-bit machines. The depot has been shared with you for your convenience.

The pre-requisites changes for Windows for x64. You need to install JDK for x64. Rest all the steps remain same for Windows as well as Windows for x64. Please refer to the Installation Manual for the complete pre-requisites.

10. Which version of JMP and JMP Genomics are compatible to SAS 9.2 and SAS 9.3 Complete support details are:

	SAS 9.2 M2	SAS 9.2 M3	SAS 9.3
JMP 8	Yes	Yes	No
JMP 9	Yes	Yes	Yes
JMP 10	No	No	Yes
JMP Pro 9	Yes	Yes	Yes
JMP Pro 10	Yes	Yes	Yes
JMP Genomics 4	Yes	Yes	No
JMP Genomics 5.1	Yes	Yes	Yes
JMP Genomics 6.0	Yes	Yes	Yes

11. Earlier there were some issues of JMP 8 Working with SAS 9.2 that required Hot fixes, are they still required for 9.3?

No, there is no need of the hot fixes anymore. It has been incorporated in the JMP 9.

12. How do we handle the situation in which JMP Genomics Installed successfully but Genomics menu is not visible when launching JMP or JMP Genomics from the shortcut?

If you are installing JMP on a 64-bit version of Windows operating system, you will be prompted to install either the 32-bit or 64-bit version of JMP. This issue occurs when you install 32-bit version of SAS, JMP and JMP Genomics on a 64-bit OS machine. After installation, please follow the following steps to rectify the issue:

- i) Close all SAS or JMP windows and navigate into the C:\Program Files\SASHome\JMP\9\directory
- ii) Locate and copy both the Genomics and LifeSciences folders.
- iii) Navigate into the C:\Program Files\SASHome\X86\JMP\9 directory and paste the Genomics and the LifeSciences folders in this directory. (Create this directory if it does not exist).
- iv) Launch the JMP or JMP Genomics from the windows start menu or shortcut and you should be able to see the Genomics menu now.



13. How to change default behavior for the Display Manager System on Microsoft Windows operating systems which is applicable with SAS® 9.3?

In an effort to modernize the look of SAS® output, showcase new graphics capabilities, and create seamless results for tables and graphs, SAS output will have a new look beginning in SAS® 9.3. These changes will take place in the Display Manager System (DMS) for Microsoft Windows. Changes to the DMS include:

- ODS HTML is the default destination for all output.
- The default style is the new HTMLBLUE style.
- ODS Graphics is enabled by default.
- By default, graphs created by ODS Graphics are stored in the WORK library.

One can set SAS to the pre-SAS 9.3 behavior in one of the three ways described as below:

(i) Set Listing output (as in SAS® 9.2) permanently:

- ➤ From the DMS pull-down options menu, select Tools → Options → Preferences. Click on the Results tab, and do the following:
 - Under Listing, check the Create listing option.
 - Under HTML, uncheck the Create HTML option.
 - Under Results options, uncheck the Use ODS Graphics option.

These changes will be stored in the SAS registry.

(ii) Change the behavior as and when required:

> Submit the statements below from the SAS Enhanced Editor window or the Program Editor window, or add the statements below to the beginning of your SAS code:

ODS graphics off;

ODS HTML close;

ODS listing;

options ods style=default;

(iii) Change the behavior permanently using configuration file:

> Specify the following options in SAS 9.3 configuration file or when invoking SAS 9.3:

ods graphics off

ods dest listing

ods style default

For more details about SAS® configuration file, refer this link:

http://support.sas.com/documentation/cdl/en/hostwin/63285/HTML/default viewer.htm#a000104286.htm

14. How to get No Profile option in SAS Enterprise Guide?

By default, SAS Enterprise Guide (EG) once installed gets connected to Server. To prevent it from connecting to server and work locally, remove the profile selection from EG Clients using the following steps:

- i) Go to Start \rightarrow All Programs \rightarrow SAS \rightarrow Point the mouse to SAS Enterprise Guide 4.3 or (other version installed) and right click on it \rightarrow Properties \rightarrow
- ii) Click on "Shortcut" tab
- iii) In the Target: add "/noprofile" (without quotes) as suffix
- iv) Click on OK

If you want to change the profile,

- v) Go to Start \rightarrow All Programs \rightarrow SAS \rightarrow Point the mouse to SAS Enterprise Guide 4.3 and right click on it \rightarrow Run as Administrator
- vi) In Enterprise Guide→ Bottom Right Corner → Select the link "No Profile Selected" → Specify the profile which you want to use during a session.



15. How to connect to SAS 9.3 Server at IASRI?

In the hosts file make sure you have the following entry:

203.197.217.221 stat.iasri.res.in stat

Host file can be located at: C:\Windows\System32\drivers\etc

Note: Previously it was told to make the following entries in the host file.

203.197.217.221 statnew.iasri.res.in statnew

In view of the changes in the server, for connecting to the EBI Server, this needs to be corrected as 203.197.217.221 stat.iasri.res.in

On this server you can connect through both EG 4.2, EG 4.3 and E-Miner 7.1.

For connecting to E-Miner 6.1 make sure that the below host entries are there in the hosts file:

203.197.217.209 sas.iasri.res.in

Please Note: Editing host file in Windows should be done with care. Unless you know what you are doing, do not attempt to do this as it may crash the operating system. Use all pre-cautions such as creating restore point, backing up important documents etc. before editing host file.

For help on how to edit Windows Host File refer to: http://support.microsoft.com/kb/923947

16. How one can work on SAS E-Miner from IP Authenticated Machines using URLs listed on the website?

Accessing SAS E-Miner through URL (IP Authenticated Services)

- For connecting SAS E-miner 6.1: http://sas.iasri.res.in:6401/AnalyticsPlatform
- For connecting SAS E-miner 7.1: http://stat.iasri.res.in/SASEnterpriseMinerJWS/Status
- Before connecting using these URL, please note the below mentioned instructions

For Accessing E-miner 6.1 and 7.1 through URLs, following ports should be open on server

Server	Ports
Metadata server	8561
Object spawner	8581
Table Server	2171
Remote Server	5091
SAS App. OLAP Server	5451
SAS Deployment Tester Server	10021
Analytics Platform Server	6411
Framework Server	22031

However, if you are accessing only E-miner 6.1, then following port need not be opened.

Framework Server	22031

Steps for accessing SAS Enterprise Miner 6.1 and SAS Enterprise Miner 7.1 separately

SAS Enterprise Miner 6.1

Pre-requisite:

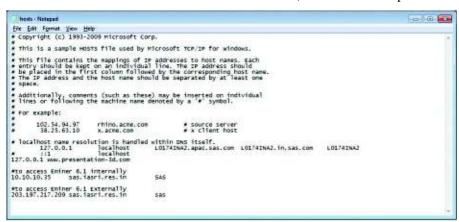
- JRE 1.5 Update 15
- If firewall and proxy has been implemented then kindly open following ports:



Server	Ports
Metadata server	8561
Object spawner	8581
Table Server	2171
Remote Server	5091
SAS App. OLAP Server	5451
SAS Deployment Tester Server	10021
Analytics Platform Server	6411

Steps to be followed:

- For the property of the pr
- Check the entry of the sas.iasri.res.in in the host file, if not then open host file C:\Windows\System32\drivers\etc and edit the host file by entering the IP as shown below or specify the internal/external IP given by IASRI, New Delhi. Internal IP is to be specified only at IASRI, New Delhi. All other NARS organizations should specify external IP only which is 203.197.217.209 sas.iasri.res.in sas as shown below (for more details please see question 15)



- Now Go to URL: http://sas.iasri.res.in:6401/AnalyticsPlatform
- Click on Launch and then Run

SAS Enterprise Miner 7.1

Pre-requisites:

- > JRE 1.6 Update 16 or higher
- > If Firewall and/or proxy has been implemented then kindly open the following ports:

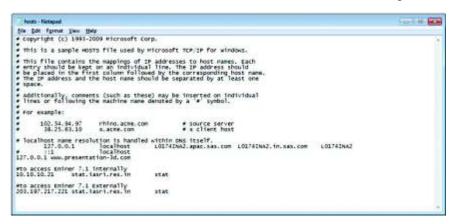
	5 1
Server	Ports
Metadata server	8561
Object spawner	8581
Framework Server	22031
Remote Server	5091
SAS App. Olap Server	5451
Deployment Tester Server	10021



Steps to be followed:

- ➤ If you have installed multiple Java Runtime Environment then
- ➤ Go to Control Panel → Java → Java tab → View → Keep check on JRE 1.6.0_16 or higher available version and Uncheck all other
- > Check the entry of the **stat.iasri.res.in** in the host file, if not then open host file

C:\Windows\System32\drivers\etc and edit the host file by entering the IP as shown below or specify the internal/external IP given by IASRI, New Delhi. Internal IP is to be specified only at IASRI, New Delhi. All other NARS organizations should specify external IP only which is: 203.197.217.221 stat.iasri.res.in stat as shown below (for more details please see question 15).



- Now Go to URL: http://stat.iasri.res.in/SASEnterpriseMinerJWS/Status
- Click on Launch and then Run

Please note: You cannot run both E-Miner 6.1 and E-Miner 7.1 together. If you want to run E-Miner 6.1 then JAVA 1.5.0_15 should be available and for running E-Miner 7.1, JAVA version 1.6 should be available on your system.

17. What is the default directory for saving SAS E-Miner projects when working on IASRI Server using SAS E-Miner client or using URL?

When working on SAS E-Miner using client or URL, user created projects will be saved by default to the following directory: /User Folders/sasdemo(1)/My Folder. User will not be able to save the project in any other directory, hence users are advised not to change the default location while creating the project.

18. How to update SAS Depot every year after receiving license files?

Updating license file of the depot in the appropriate sub-folder is one of the essential requirement for installing the software in new machine. While installing software, it will pick the new license automatically from appropriate sub-folder otherwise you have to provide the location of the license when system will ask for the same. In all versions of SAS/JMP/JMP Genomics software contain a folder "SID_Files" which hold the license of that software. During installation software pick up the license automatically from this folder.

- For SAS: Copy the license file in the depot, in the SID_files folder located at G:\SASDepot_SAS93 (32-bit)\Main Depot\sid_files (This is an Example of SAS 9.3. In the same way you can copy and paste for SAS 9.2)
- For JMP: Copy the license in the depot, in SID_files folder located at G:\SASDepot_SAS93 (32- bit)\JMP 9\sid_files (This is an Example of JMP9. In the same way you can copy and paste for JMP8 and JMP10)



- For JMP Genomics: Copy the license in the depot, in SID Files folder located at G:\SASDepot_SAS93 (32-bit)\JMP Genomics 5.1\sid_files (This is the Example of JMP Genomics 5.1. In the same way you can copy and paste for other version of JMP Genomics). It requires two files one belongs to SAS license file "SAS93_99RG88_11601388_Win_Wrkstn_Srv" and other JMP license file "JMP902_99RG88_11601389_Win_Wrkstn", both the files should be copied in the folder.
- To avoid confusion delete the old expired license file from the SID Files folder.

19. How to Renew SAS license if "Renew SAS Software" shortcut is not available inside Utility sub folder under SAS folder?

SAS license renewal application named "Renew SAS Software" lies under utility sub folder within SAS start menu folder that can be accessed from the windows start menu. In rare cases if "Renew SAS Software" application shortcut is not available inside the utility sub folder, it can be launched directly from the SAS installation directory i.e. "C:\Program Files\SASHome\x86\SASRenewalUtility\9.3\". Once the directory is located, license renewal utility can be launched by double clicking the "SASRenew.exe" file. Rest of the procedure is same as described in SAS license renewal document which may be referred, if required.

20. How to handle the errors which occur while using SAS or SAS Enterprise Guide to import or export MS Excel files in the Windows x64-bit environments with MS Office 32-bit version installed. Some examples of Error Messages are:

ERROR: Connect: Class not registered. ERROR: Error in the LIBNAME statement.

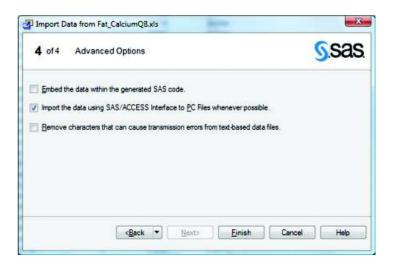
In this case use the **DBMS = EXCELCS** in Proc Import Statement, for example:

proc import dbms=excelcs datafile= '<data file path>'

out=<sas-data-output-filename> replace;

run:

In case of importing MS Excel file in SAS Enterprise Guide, please select the 2nd check box to use PC Files server while importing the data.

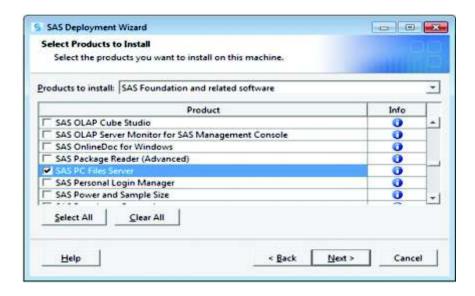


Note: The **EXCELCS** engine requires the **SAS PC Files Server** installed on the system, which can be installed during the SAS installation.



21. How to install SAS PC Files Server?

SAS PC Files Server can be installed while installing SAS on your system. One has to select the SAS PC Files Server component from the product list during the selection as shown below.



22. How to revive required version of JAVA when automatically it gets updated and Errors occur at SAS start-up if the JRE is updated or if there is a problem with the existing JRE?

Some Examples of such errors are:

ERROR: Unable to load the Java Virtual Machine.

Please see the installation instructions or system administrator.

ERROR: The Java proxy is not responding.

ERROR: The Java proxy's JNI call to start the VM failed.

ERROR: Java failed to start during the SAS startup.

We require JAVA 1.5.0_15 for SAS 9.2 and 1.6.0_24 for SAS 9.3. In case these versions of JAVA get updated automatically it may create problem to run the SAS programme even sometimes it may not allow user to write the SAS code in programme editor. To overcome this problem, we have to perform the following task.

- Go to control panel select JAVA tab and keep check required version of JAVA and uncheck rest of the updated verion of JAVA.
- Go to C:\Program Files\SASHome\sassw.config and open this file with note pad, make the changes and save the file. In case of SAS 9.3 it should be as under

First location

C:\ProgramFiles\SASHome\sassw.config

[properties]

JREHOME=C:\Program Files (x86)\Java\jre1.6.0_24\bin\java.exe

SASHOME=C:\Program Files\SASHome

DPLMTREGLOC=C:\Program Files\SASHome\deploymntreg

SASENVIRONMENTSURL=http://stat.iasri.res.in/SASLogon/sas-environment.xml

VJRHOME=C:\Program Files\SASHome\SASVersionedJarRepository



Second Location

In 32-Bit OS: C:\Program Files\SASHome\SASFoundation\9.3\nls\en\sasv9.cfg In 64-Bit OS: C:\Program Files\SASHome\x86\SASFoundation\9.3\nls\en\sasv9.cfg

Look for JRE Options section and modify the highlighted JVM.dll file path

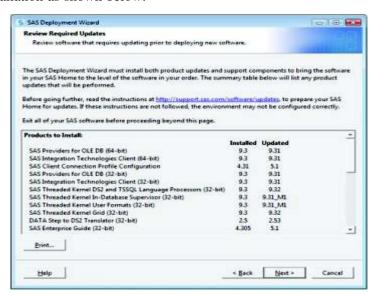
- /* Options used when SAS is accessing a JVM for JNI processing */
- -JREOPTIONS=(
 - -DPFS_TEMPLATE=!SASROOT\tkjava\sasmisc\qrpfstpt.xml
 - -Djava.class.path=C:\PROGRA~1\SASHome\SASVER~1\eclipse\plugins\SASLAU~1.JAR
 - -Djava.security.auth.login.config=!SASROOT\tkjava\sasmisc\sas.login.config
 - -Djava.security.policy=!SASROOT\tkjava\sasmisc\sas.policy
 - -Djava.system.class.loader=com.sas.app.AppClassLoader
- Dlog4j.configuration=file:/C:/Program%20Files/SASHome/x86/SASFoundation/9.3/tkjava/sasmisc/sas .log4j.properties
 - -Dsas.app.class.path=C:\PROGRA~1\SASHome\SASVER~1\eclipse\plugins\tkjava.jar
 - -Dsas.ext.config=!SASROOT\tkjava\sasmisc\sas.java.ext.config

-Dsas.jre.libjvm=C:\PROGRA~2\Java\JRE16~1.0_2\bin\client\jvm.dll

- -Dtkj.app.launch.config=C:\PROGRA~1\SASHome\SASVER~1\picklist
- -Xms128m
- -Xmx128m

23. How to install SAS Enterprise Guide version 5.1 when SAS 9.3 is already installed with SAS Enterprise Guide 4.3?

A separate directory for SAS Enterprise guide 5.1 (32-Bit) has been created to SAS depot and shared with all the centres. This can be used to install SAS EG 5.1. To do so, one can simply launch the **setup.exe** file inside the SAS EG 5.1 (32-bit) depot to launch the **SAS Deployment Wizard** which automatically updates the existing SAS 9.3 installation adding SAS EG 5.1 and several other components to the existing installation as shown below:



Click the Next Button and continue with the update which installs SAS EG 5.1. One can use both the versions 4.3 and 5.1 of SAS Enterprise Guide simultaneously.



24. How to get the SAS file types or SAS program file icons, which are not displayed correctly after installation of SAS Enterprise Guide 5.1?

After installation of SAS Enterprise Guide 5.1, the icons for SAS file types may not be displayed correctly. The problem occurs during the installation process when the sasvft95.dll file is not placed in the SAS Enterprise Guide installation folder. To correct this issue please make use of the following steps:

- i) Obtain a copy of the file **sasvft95.dll** from the **resource** folder under your SAS Foundation installation folder. Navigate to one of the following paths, depending on your system architecture, and copy the file.
 - For 32-bit systems: C:\Program Files\SASHome\SASFoundation\9.3\core\resource\
 - For x64 systems with 64-bit SAS: C:\ProgramFiles\SASHome\SASFoundation\9.3\core\resource\
 - For x64 systems with 32-bit SAS:C:\ProgramFiles\SASHome\x86\SASFoundation\9.3\core\resource\
- ii) Now paste the file in your SAS Enterprise Guide Installation folder.
 - C:\Program Files\SASHome\x86\SASEnterpriseGuide\5.1 or
 - C:\Program Files\SASHome\SASEnterpriseGuide\5.1
- iii) If the .dll file is named 64_sasvft95.dll, rename it to sasvft95.dll
- iv) SAS file types will be displayed correctly after reboot

25. How to completely remove SAS 9.3 from the system in case of failed/ partial installation or planning to install a new version?

Just like any other software, SAS 9.3 can be uninstalled from the machine using Add/Remove Program utility from the control panel of Windows operating system. But, even after uninstallation some files need to be manually removed from the system from the following locations:

- i) Click the windows start menu and type "Regedit" in to the search box and press enter key to launch registry editor. Expand the entry **HKLEY_CURRENT_USER -> SOFTWARE** and find the entry **"SAS Institute Inc"**, right click it and select delete, press yes button to permanently deleting the SAS registry keys.
- ii) Open C drive of the system, browse the Program Files folder and delete the SASHome folder.
- iii) Go to My Documents in the My Computer and delete My SAS Files or My SAS Files(32) folder.

It is also recommended that one should restart the system before trying re-installation of SAS 9.3

Caution: While editing Windows Registry, be careful as any mistake may result in Operating system crash. It is recommended only for those who have knowledge about editing/modifying Windows Registry, may perform this task.



For any critical comments / suggestions that help in improving the contents and the presentation so as to make it more meaningful to the researchers please write to

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