# Installation Instructions for JMP Genomics 9.0

These instructions describe the process for downloading and installing JMP Genomics 9.0 on your Windows desktop machine. These instructions include two major sections:

#### 1 Download the Software

JMP Genomics 9.0 is downloaded using a small utility program called the SAS Download Manager. You will first download and install the SAS Download Manager and then run the Download Manager to download the installation files for JMP Genomics 9.0 as described in "Step 1: Download and Run the SAS Download Manager Application," p. 3.

The installation files are placed in a folder known as the SAS Software Depot. The SAS software Depot is large (almost 10 Gigabytes), and it might take several hours for the SAS Download Manager to complete the download process.

#### 2 Install the Software

Follow the instructions detailed in "Step 2: Install JMP Genomics Software," p. 15.

#### 3 Appendixes

Appendixes provide instructions and suggestions for managing atypical installations and situations.

Appendix 1: Installing JMP Genomics from DVD

Appendix 2: Increasing the Memory Allocation for SAS Processes Run under JMP Genomics

Appendix 3: Installing JMP Genomics on a Computer Configured for Use with a Language Other Than

English

### Before installing JMP Genomics, you should note the following important items:

- A SAS software depot can be used by multiple users. If there are multiple JMP Genomics
  users at your site, either the site administrator or a designated user should download the software (either electronically or from the DVDs) to a single SAS software depot. This depot
  should be located on a network server that is accessible to every user. Registered users can then
  use that single depot to install the software on their local machines.
- You should keep at least one copy of your SAS software depot, in case you need to reinstall the software again in the future.
- You must have JAVA 7, update 21, or later installed on the client machine before installing JMP Genomics. Software can be downloaded from the JAVA website (<a href="https://www.java.com/en/download/">https://www.java.com/en/download/</a>).

# **Before You Install JMP Genomics 9.0**

- Terminate all non-essential applications.
- The SAS Job Spawner is running as a service, it must be disabled.
- The Disable any anti-virus software that might be running.

If you are upgrading a prior version of JMP Genomics to JMP Genomics 9.0, you **should uninstall** the prior version before installing the new software.

- 1 Launch the Uninstall Utility
  - In Windows 7, click Start > Control Panel > Programs and Features.
- Use the utility to uninstall SAS 9.4.
- 4 You should also delete the SASHome directory located in the C:\Program Files directory.

# **Description of Your Package**

#### **Electronic Delivery**

After you submit your signed paperwork for JMP Genomics 9.0, you will receive an email listing your site's order number, an installation key code specific to this order and contact information for SAS Technical support.

#### Your Order Information:

Order Number: SAS Installation Key: Deployment Type:

Date:

Space Required for SAS Software Depot:

Software Status:

SAS Installation Representative

Your Name Your Name Your Order Number Your Installation Key

Planned (Deployment plan needed)

September 06, 2017 12.0GB

Pre-production

Email Address Your Email Address Your Email Address Tech Support Site Number

XXXXXXXX

#### Information for Tech Support Site XXXXXXXX

Site Name:

Tech Support Site Number: Contracts Site Number: Operating System: Internal Reference: License File:

Product(s) Ordered Base SAS JMP Genomics SAS Enterprise Guide JMP Genomics 9.0 64 bit desktop

**Your Contracts Site Number** 

Microsoft® Windows® Workstation for x64 SAS 9.4 TS1M0, Rev. 940\_17w38 SAS94\_09L4CL\_70177801\_Win\_X64\_Wrkstn.txt

Information for Tech Support Site YYYYYYYY

Site Name:

Tech Support Site Number: Contracts Site Number: Operating System: Internal Reference: License File:

Product(s) Ordered JMP for Genomics JMP Genomics 9.0 64 bit desktop YYYYYYYY Your Contracts Site Number

Your Contracts Site Number
Microsoft® Windows® for x64
JMP 13.2 TS1M0, Rev. 940\_17w38
JMP132\_09L4CL\_70192716\_Win\_X64.txt

#### **DVD Delivery**

In some cases, you can choose to receive JMP Genomics on DVD. See <u>"Appendix 1: Installing JMP Genomics from DVD," p. 33</u> for specific instructions for installing JMP Genomics from DVD.

# Step 1: Download and Run the SAS Download Manager Application

#### You will NOT need to install the SAS Download Manager if:

Your IT administrator has already done so. You will need to know the location of the SAS software depot. You should skip Step 1 and proceed directly to "Step 2: Install JMP Genomics Software," p. 15.

#### 4

#### You will need to install the SAS Download Manager if:

- You are a single user of JMP Life Sciences software.
- You are an IT administrator managing the software for multiple users.
- Install the SAS Download Manager as described below.

The email listing your site's order number and installation key code will also contain a link (circled below) to the SAS Download Manager. The SAS Download Manager application must be downloaded and used to generate a local SAS Software Depot before JMP Genomics 9.0 can be installed.

When you are ready to deploy your SAS software, follow these instructions:

#### 1

#### Download the SAS Download Manager.

http://image1.unx.sas.com/tools/esdclient/

The SAS Download Manager is the application you must use to download your software.

NOTE: If you are a Cary Install Depot user, then you do NOT need to download and install the SAS Download Manager application; just use the "Download" links on the Custom Order tab.

If you are a remote user, then follow the above link to download and install the SAS Download Manager. Then go to: <a href="http://image1.unx.sas.com/preferences/">http://image1.unx.sas.com/preferences/</a> and change your esdClientWin value using the example provided on the page. Using the "Download" links on the Custom Order tab will now result in much better performance because you will be using the local copy of the SAS Download Manager instead of invoking an application across a remote connection.

# 2

#### Download your SAS software using the SAS Download Manager.

When you are ready to begin downloading your software, follow the instructions in the readme file from the download site to start the SAS Download Manager. When prompted, provide the following information to the SAS Download Manager:

- Order number: Your Order Number
- SAS installation key: Your SAS Installation Key

When the download process is complete the SAS Download Manager will have created a SAS Software Depot, the repository for your SAS software, in the location you indicated in the SAS Download Manager dialogs. In addition, the installation process creates a depotsummary.html document at the root of your SAS Software Depot that describes the contents of the depot.

# 3

#### Install your SAS software.

Follow the instructions in the QuickStart Guide: SAS® 9.4 Planned Deployment using Electronic Software Delivery. The QuickStart Guide describes how to obtain a deployment plan, which is an XML-based description of the topology of the intended final SAS software deployment for your system. The QuickStart Guide also explains how to access any ReadMe documents that contain information required for deployment of your software. To locate the QuickStart Guide, select the appropriate link on your depotsummary.html described in Step 2 or use this link: http://support.sas.com/qsgesdplan94.html.

**Note:** The process of downloading your software from SAS should not be used as a mechanism for distributing your software across your organization. The SAS download site will limit the number of downloads that may be performed per order. If you need to distribute the software image internally, download it to a networked location that is available to all systems where the software needs to be installed. Alternately, you can create your own media from your downloaded image using the tools provided. The installation of either internal distribution method is subject to your number of licensed users or copies.

- Click the link in step 1 of the emailed instructions (circled above) to open the download window in your web browser.
- A Select your Windows platform.

In this example, we are installing 64-bit JMP Genomics 9.0 on a Windows 7 machine. Therefore, we chose Microsoft Windows for x64.

#### **Tools > SAS Download Manager**

The SAS Download Manager is a Java-based client that can access the SAS software repository in order to download selected SAS orders. The JRE required by the SAS Download Manager is included with the download below. The SAS Download Manager, once fully extracted, requires approximately 30MB of space to run. It is not necessary to download the application to the same location you intend to eventually install your SAS software order. The location where you install the SAS Download Manager should have external access to the internet.

#### **Latest Validated Installers**

Platform	Size	Updated	Download
64-bit Enabled HP-UX	62 MB	01Sep17	<u>esdclient 93540 h64 xx web 1</u>
HP-UX IPF	108 MB	01Sep17	esdclient 94488 h6i xx web 1
Linux for x64	67 MB	01Sep17	esdclient 94488 lax xx web 1
Linux	48 MB	01Sep17	esdclient 93540 lnx xx web 1
Macintosh	14 MB	01Sep17	esdclient 94330 mac xx web 1.dmg
Macintosh	14 MB	01Sep17	esdclient 94360 mac xx web 1.dmg
Macintosh	14 MB	01Sep17	esdclient 94460 mac xx web 1.dmg
Macintosh	14 MB	01Sep17	esdclient 94470 mac xx web 1.dmg
Macintosh	14 MB	01Sep17	esdclient 94472 mac xx web 1.dmg
Macintosh	14 MB	01Sep17	esdclient 94474 mac xx web 1.dmg
Macintosh	14 MB	01Sep17	esdclient 94480 mac xx web 1.dmg
Macintosh	14 MB	01Sep17	esdclient 94488 mac xx web 1.dmg
64-bit Enabled AIX	116 MB	01Sep17	esdclient 94488 r64 xx web 1
64-bit Enabled Solaris	88 MB	01Sep17	esdclient 94488 s64 xx web 1
Solaris for x64	82 MB	01Sep17	esdclient 94488 sax xx web 1
Windows	42 MB	01Sep17	esdclient 94488 win xx web 1.exe
Microsoft Windows for x64	42 MB	01Sep17	esdclient 94488 wx6 xx web 1.exe
<u> 3</u> /08	16 MB	01Sep17	esdclient 94488 mvs xx web 1.zos

Go back to Install Depot Support Tools.

README: Documentation for SAS Download Manager Web Downloads

Note: The documentation files at this location will require a registration profile for access.

The Click the link in the **Download** column to request the download for the desired platform. A window **might** open asking you to log on to your SAS Profile.

#### 6

# **SAS Login**

Already Have a Profile?
Email:
Password:
Keep me logged in
Login
Forgot Password?
Need Help? Chat Unavailable
New User?
Create your profile to take full advantage of our site.
Create
Why Create a Profile?
Get social - join SAS communities.
Get help - follow your tech support questions.  Get software - download software/hot fixes.
Get informed - manage e-learning/newsletters.

Heither log on to your existing SAS Profile or create a new Profile.

You must read and accept the SAS License agreement to proceed further.

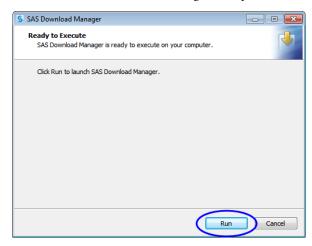
Click Accept to proceed.

You are prompted to either **Run** or **Save** the executable.



#### Click Run.

A window asking you to launch the SAS Download Manager will open.

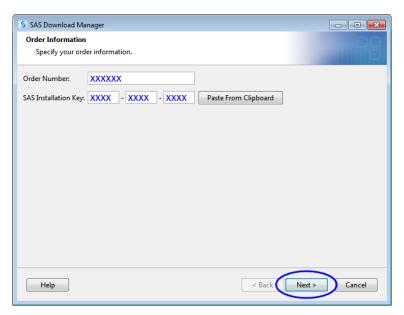


#### Click Run.

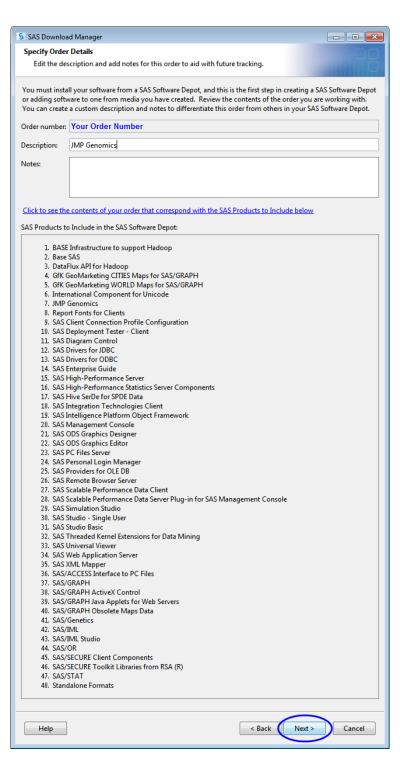
A window asking you to specify the language of your installation will open.



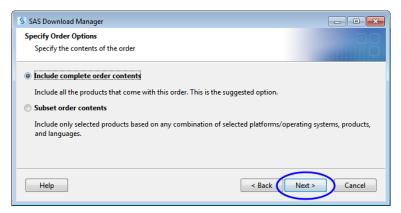
- hand click **OK**.



- ⁴ Click Next.
- Texamine the order details.

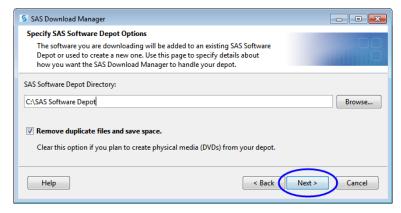


A Make sure that **Include complete order contents** is selected.

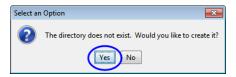


- Click Next.
- The Specify where the software depot is to be installed.

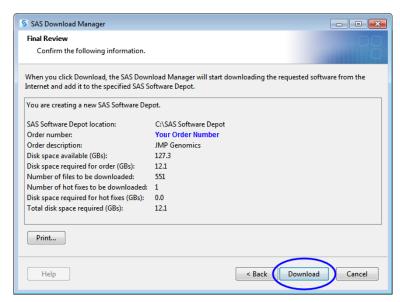
By default, the software depot is installed to the C:\SAS Software Depot directory. If this directory does not exist, it is created for you. You can accept the default location or specify an alternate location.



Click Next.

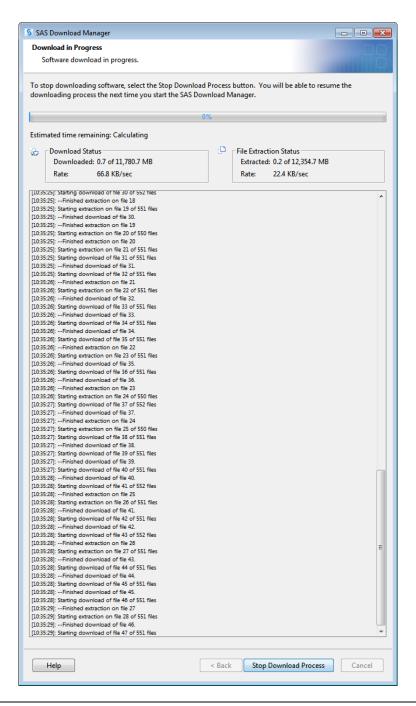


- A Click Yes.
- Review the install information.



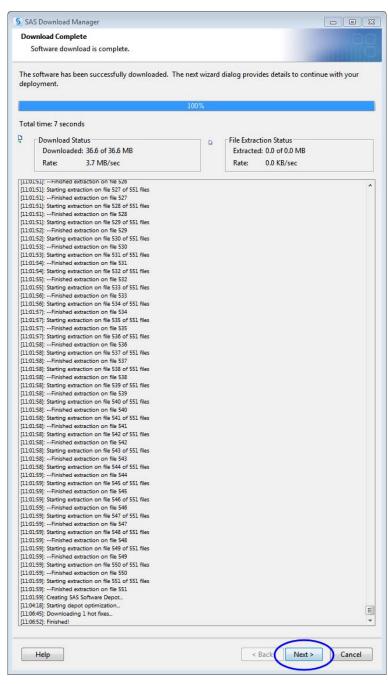
Here Click Back if you need to make any changes. Otherwise, click Download.

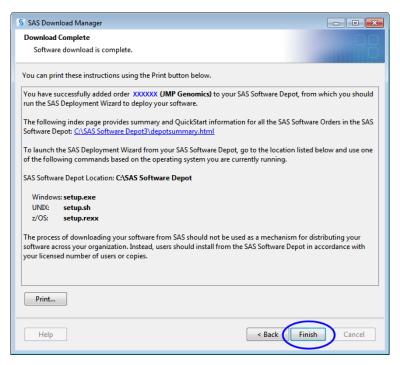
The download process begins. You must wait for this process to complete.



**Note**: This process can take an extended time.

When the download process is complete, the **Next** button is surfaced.





A Click Finish.



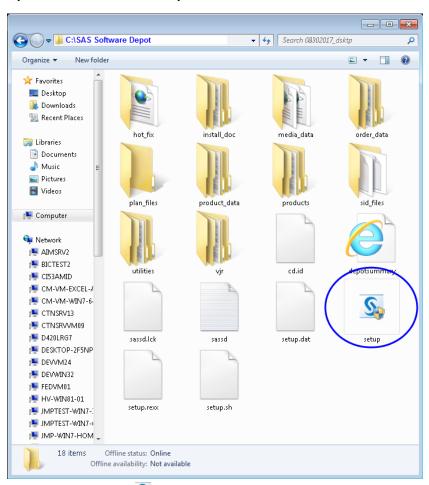
- A Click Finish.
- Proceed to "Step 2: Install JMP Genomics Software," p. 15.

# **Step 2: Install JMP Genomics Software**

Step 2a: Determine the location of the SAS Software Depot containing the JMP Genomics software to be installed.

By default, the location of the depot is C:\SAS Software Depot.

Step 2b: Open the SAS Software Depot.



 $<sup>^{\</sup>circ}$  Double-click on the setup icon ( $^{\$}$ ) to open the application.

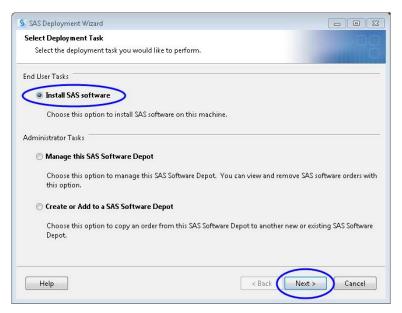
#### Step 2c: Installation

Select **English** as the language that you want to view the SAS Deployment Wizard to display and click **OK**.

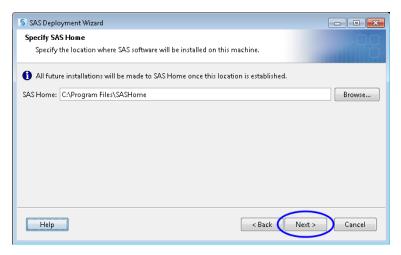
Proceed to Step 2c.



Telect Install SAS Software and click Next.



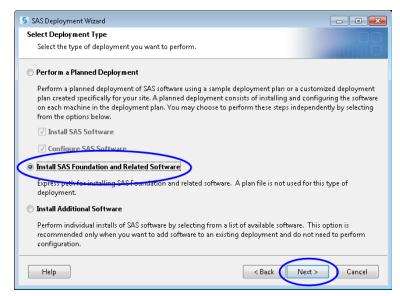
- The Specify the type of deployment that you want to perform and click **Next**.
- The Specify where the software is to be installed.



By default, the software is installed in the C:\Program Files\SASHome directory. If this directory does not exist, it will be created.

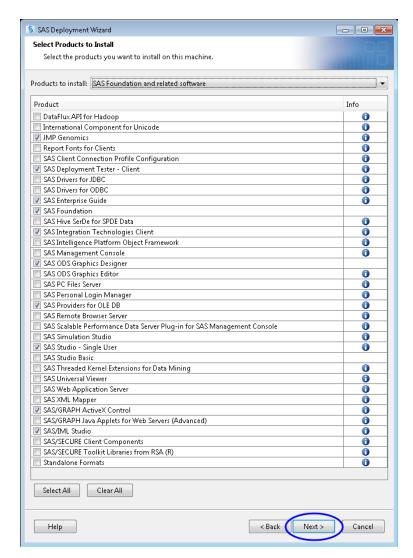
#### Click Next.

In most cases, you will be installing only the SAS Foundation and related software.



A Select Install SAS Foundation and Related Software and click Next.

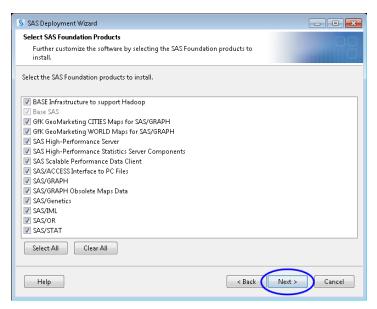
The list of software to be installed is shown.



 $<sup>^{\</sup>mbox{\tiny $1$}}$  Make no changes to the selections.

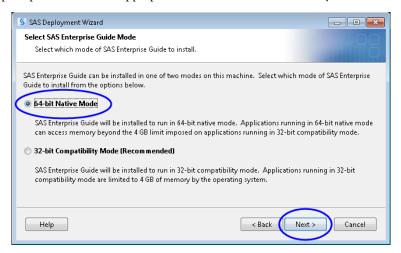
The SAS Foundation products to be installed are displayed.

Click Next.



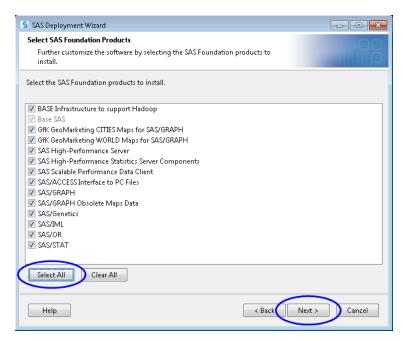
- <sup>^</sup>⊕ Make no changes.
- Click Next.

You may be prompted to select the appropriate mode (64-bit or 32-bit) for your machine.



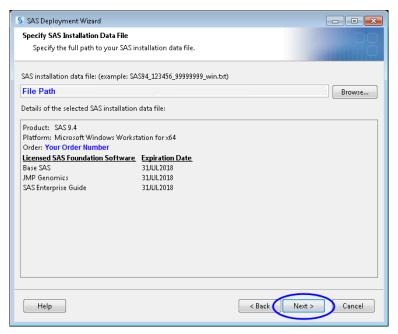
- \* Select the appropriate mode (in this example, we are installing on a 64-bit machine).
- Click Next.

The SAS Foundation products to be installed are displayed.



- A Click **Select All** to make sure all products are selected.
- Click Next.

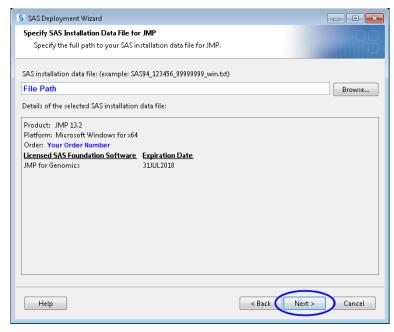
The name and path to SAS installation data file are displayed.



⁴ Make no changes.

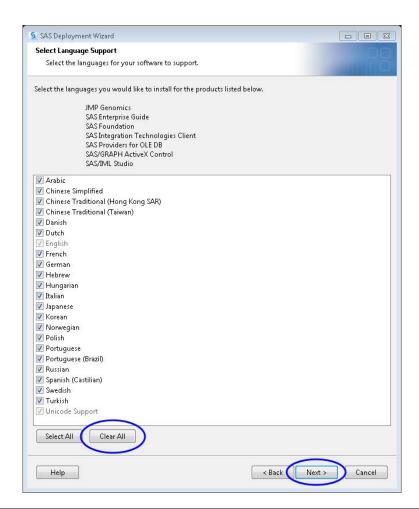
#### Click Next.

The name and path to JMP installation data file are displayed.



- <sup>⁴</sup> Make no changes.
- Click Next.

The list of language support files to be installed is shown.



**Note**: JMP Genomics is currently an English-only product. To save hard disk space, you should install English support only.

Click Clear All to deselect all languages except for English.

**Note**: If you are installing JMP Genomics on a computer configured with a non-English operating system, you should also recheck the box for that language. You should then follow the instructions listed in <u>Appendix 3: Installing JMP Genomics on a Computer Configured for Use with a Language Other Than <u>English</u> after completing this installation.</u>

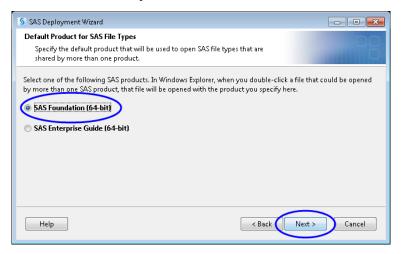
#### Click Next.

By default, the regional settings default to United States English.



#### Click Next.

A Make sure that SAS Foundation is specified.



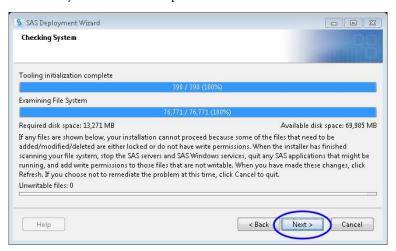
#### Click Next.

The Installer begins by checking your system for required components. You must wait for this process to complete.

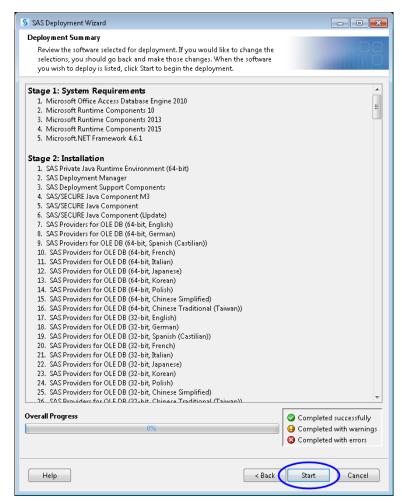
**Note**: This process can take an extended time.



\* Click **Next** when the System Check is complete.



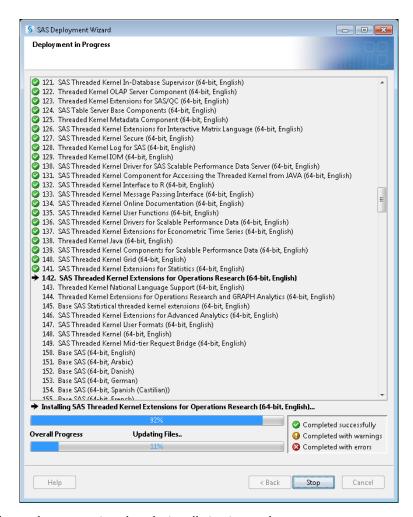
HE Examine the Deployment Summary.



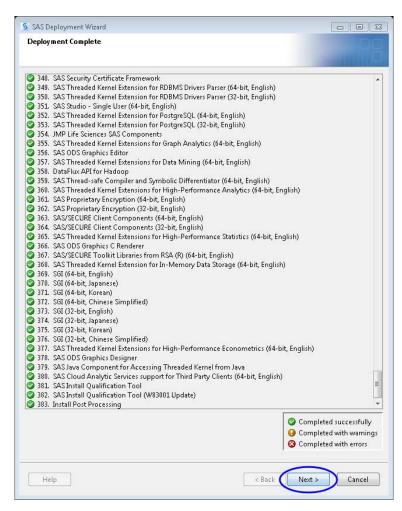
A Click **Start** to begin the installation.

You might be required to reboot your machine one or more times during the installation. You will need to restart the installation after each reboot.

As each component is successfully installed, a green check mark appears.



The **Next** button becomes active when the installation is complete.

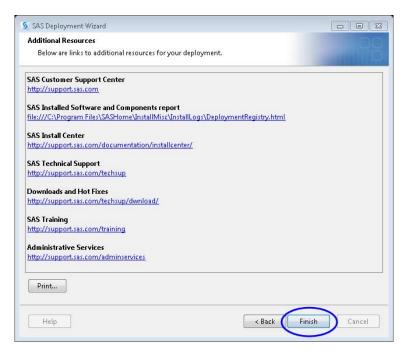


#### Click Next.

You might be asked to select a support option.



h If you see this window, select whether you want the specified information back to SAS and click **Next**.



A Click **Finish** to complete the installation and close the Deployment Wizard.

### Step 2d: Verify that JMP Genomics has been successfully installed.

\*\* Click Start > All Programs > SAS > JMP Genomics 9.0 to open JMP Genomics.

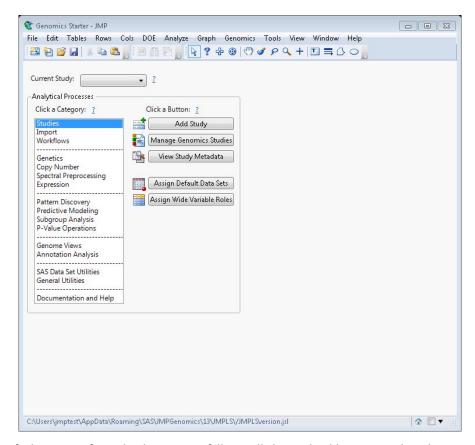
The first time you open JMP Genomics, you will be asked to register your software.



Tollow the instructions to register your software.

At first, you may see a message box indicating that the JMP Genomics dialogs are being generated.

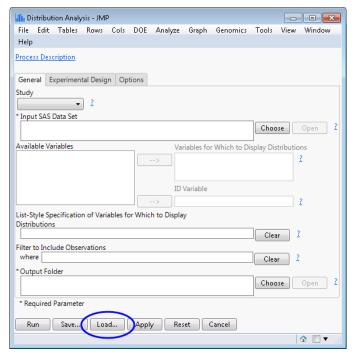
Once this process, which is done only the first time you open JMP Genomics, is complete, the Genomics Starter window will open. All JMP Genomics processes can be run from the Genomics Starter.



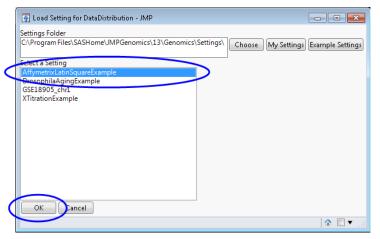
To verify that your software has been successfully installed, you should run an Analytical Process (AP).

\*\* Click Expression > Quality Control > Distribution Analysis from the Genomics Starter.

The Distribution Analysis dialog will open.

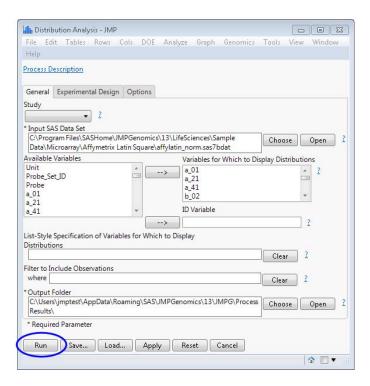


A lick **Load** to open the Load Setting window.



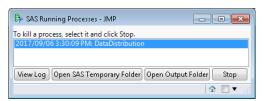
The Select the AffymetrixLatinSquareExample setting and click **OK**.

The Load Setting window will close and the Distribution Analysis dialog will show the parameters specified by the selected setting.

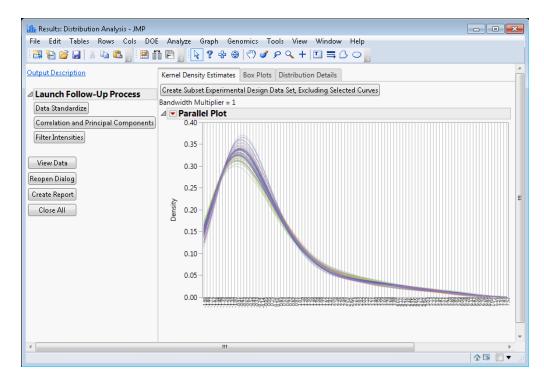


#### Click Run.

The following window will appear while the process is running and will close when the process is complete.



When this process is complete, the following tabbed Results window will open.



Your installation is complete and your software is ready to use.

# **Appendix 1: Installing JMP Genomics from DVD**

After you submit your signed paperwork for JMP Genomics 9.0, you will receive an installation package containing three DVDs. The DVDs contain both your software and the SAS Download Manager. The package also includes an information sheet listing your order number, an installation key code specific to your order and contact information for SAS Technical support. Installation of the SAS Software Depot from DVD is very similar to the web download described above, with some minor exceptions, and you should refer to this procedure for more details.

### **Installing the SAS Software Depot**

- 1. Insert the disk labeled **SAS Software Disk 1**.
- $^{\circ}$  Navigate into the disk's directory and double-click on the setup icon ( $^{\circ}$ ) to open the application.
- Click **Yes** if you are prompted to run this file.

A window asking you to specify the language of your installation will open.

The Select the desired language and click **OK** to start the SAS Deployment Wizard.

You will be asked to select a deployment task.

♣ Select Create or Add to a SAS Software Depot and click Next.

Your order details should be specified automatically.

- Click Next.
- Make sure that **Include complete order contents** is selected and click **Next**.

By default, the software depot is installed to the C:\SAS Software Depot directory. If this directory does not exist, it is created for you. You should accept the default location unless there is a pressing need to place the software elsewhere.

Several windows will appear in succession

- Click **Next** (or **Yes**) in each window to continue
- Review the install information. Click **Back** if you need to make any changes. Otherwise, click **Start** to begin the installation.

**Note**: Installation of this software can take an extended time. You must wait for this process to complete.

During the installation, you will be prompted to change disks.

As the installation continues, you will be prompted to change disks several times. Remove the current disk and insert the specified disk. Click **OK** to continue the installation.

When the download process is complete, the **Next** button is surfaced.

- A Click Next.
- <sup>1</sup> Click Finish.

Proceed to "Step 2: Install JMP Genomics Software," p. 15.

# Appendix 2: Increasing the Memory Allocation for SAS Processes Run under JMP Genomics

While native JMP stores all data in memory, the SAS processes run by JMP Genomics use a combination of both memory and disk. The latter enables the system to handle very large data sets, but run times can sometimes be slow due to read and write speed to disk. If your computer has 4 gigabytes of memory or more and your data sets are 1 gigabyte or less, you can improve the performance of SAS runs by allocating more memory to SAS. Use the following steps:

- Close all JMP and SAS sessions.
- Navigate into the C:\Program Files\SASHome\SASFoundation\9.4\nls\en directory (or the directory in which SAS is installed).
- Treate a backup copy of the SASV9.CFG file and save the backup to another directory.

**Note**: It is very important that you create this backup copy before making any modifications to the SASV9.CFG file. Changes to the SASV9.CFG file might prevent SAS from functioning properly. Having this backup will enable you to revert to the original configuration.

The Open the SASV9.CFG file using a text editor such as Notepad or TextPad.

- The Scroll down through the file to the -MEMSIZE 2G line of code.
- Delete the -MEMSIZE 2G line of code and replace it with the following 4 lines of code:
  - -MEMLIB
  - -MEMSIZE 0
  - -MEMMAXSZ \*C
  - -SORTSIZE \*G

where \* indicates the number of gigabits of RAM to allocate to SAS. A recommended amount for both -MEMMAXSZ and -SORTSIZE is ¾ of your total RAM. For example, if you have 8G of RAM, specify 6G for both of these options.

**Caution**: Do not exceed your machine's available RAM. You must leave sufficient memory available for other processes. If a SAS process does exceed the memory limits you specify, you will see an error message in the SAS log such as "Out of Memory" or "Unable to Allocate Sufficient Resources". In such cases, you should remove the options above and let SAS use disk space to store large working data sets.

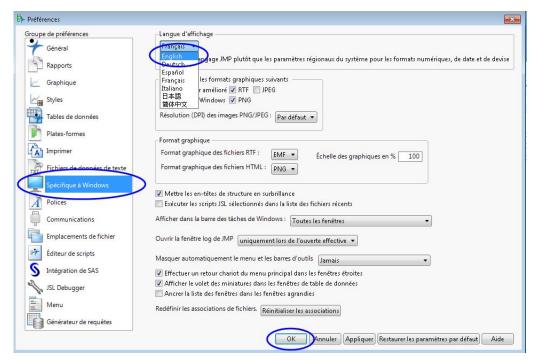
# Appendix 3: Installing JMP Genomics on a Computer Configured for Use with a Language Other Than English

JMP Genomics is not supported for use in any language other than English. However, it might be possible to access some of JMP Genomics' functions on a non-English-configured machine. In this example, JMP Genomics is being installed on a machine with a French OS.

- Townload and install the SAS Software Depot as described previously.
- 1 Install JMP Genomics as described previously.
- Before running JMP Genomics for the first time, you must switch JMP and SAS languages to English.

# To switch the JMP language to English:

- 1 Open JMP Genomics on French OS.
- 'd Click Fichier (File) -> Préférence (Preference) -> Spécifique à Windows (Windows Specific) in JMP Genomics. Click pull down menu under Langue d'affichage (Display Language) and change from French to English, as shown below:



- Click OK.
- <sup>1</sup> Close JMP Genomics.

# To switch the SAS language to English:

**Note**: This assumes you have installed SAS in the default location.

- Open the SASV9.CFG file using a text editor such as Notepad or TextPad. This file should contain only the following line of code:
  - <-CONFIG "C:\Program Files\SASHome\SASFoundation\9.4\nls\\*\*\SASV9.CFG">. where \*\* is the two-letter language abbreviation.

**Note**: The abbreviation **en** is used when the default language is English. The abbreviations for all other languages can be found at <a href="http://support.sas.com/kb/33/127.html">http://support.sas.com/kb/33/127.html</a>.

- Thange the language abbreviation to the desired language.
- The Save the change and close the file.