# IBM SPSS Modeler Server 15 for Windows Installation Instructions

IBM® SPSS® Modeler Server can be installed and configured to run in distributed analysis mode together with one or more client installations. This provides superior performance on large datasets, since memory-intensive operations can be run on the server without downloading data to the client computer. At least one IBM® SPSS® Modeler Client installation must be present to run an analysis.

## System Requirements

The minimum hardware and software requirements for IBM® SPSS® Modeler Server are as follows:

- **Operating system.** Windows Server 2008 R2 for 64-bit x64 systems; Windows Server 2003 Standard Edition R2 for 32-bit x86 or 64-bit x64 systems

- **Hardware.** Pentium® or Pentium-class processor or higher (for 32-bit Windows); x64 (AMD 64 and EM64T) processor family (for 64-bit Windows), running at 1GHz or faster

- **Minimum free disk space.** 2 gigabytes (GB) recommended.

- **RAM.** 4 GB is recommended.

- **Virtual environment.** The following virtual environments support IBM® SPSS® Modeler Server.

  - IBM PowerVM Hypervisor for IBM AIX

  - IBM PR/SM or z/VM for Linux for IBM System z

  - VMWare ESX Server 4.1

  - VMWare vSphere 4.0

- **Cluster environment.** The following cluster environments support SPSS Modeler Server.

  - IBM HACMP/RSCT for IBM AIX

  - IBM WebSphere App Server 64-bit

  - Microsoft Cluster Service for Windows

  - Oracle Solaris Cluster

  - Oracle WebLogic App Server 64-bit

  - Red Hat Cluster Suite for Red Hat Enterprise Linux

- If using physical installation media, a DVD-ROM drive.

- A network adaptor running the TCP/IP network protocol.

**Client software.** The client software must be at the same release level as the IBM SPSS Modeler Server software.

*Note*: We recommend that you install a copy of the client software on your Windows desktop computer. You may need it to test the IBM SPSS Modeler Server connection and to test the data sources that you configure. It might also be useful for diagnosing other problems. If you downloaded IBM SPSS Modeler Server, you can also download the client. If you have physical installation media, your product package contains a client installation disk. Please do not install the client on the same computer as IBM SPSS Modeler Server.

# Upgrading

If you do not currently have IBM® SPSS® Modeler Server installed on the target computer, skip to Installing on p. 3 . If you do have an installation on the target computer, decide whether to:

■ Replace the current version. You must replace the old version if the new version is a minor release compared to the old version. You can check if the release is minor by looking at the first two parts of the version number. If these are the same as the installed version, the new version is a minor version compared to the installed version. For example, if the new version is 13.1 and the old version is 13.0, the new version is a minor release and you must replace the old version.

*or*

■ Install the new version in addition to your current version. You can install the new version in addition to the old version if the new version is a major release compared to the old version. For example, if the new version is 14.0 and the old version is 13.1, you can install the new version in addition to the current version.

### To Replace the Current Version

▶ Back up your existing configuration file (*options.cfg*) to another location. The configuration file is located in the *config* directory. Note that configuration settings specified in this file can also be modified using IBM® SPSS® Collaboration and Deployment Services Deployment Manager. For more information, see the topic Installing the Administration Console for IBM SPSS Collaboration and Deployment Services Deployment Manager on p. 5 .

▶ Remove the old version. Follow the steps in Uninstalling on p. 9 .

▶ Install the new version. Follow the steps in Installing on p. 3 .

▶ Compare your old configuration file with the new configuration file and transfer any options settings that you want to preserve in the new file. See the *IBM SPSS Modeler Server and Performance Guide* for information about the options in the configuration file. Do not replace the new file with the old one.

### To Add the New Version

▶ Follow the steps in Installing on p. 3 , with the following comments.

■ **Destination directory**. Install the new version in the different location from the old version.

The port number and temporary file location are specified in the administration console. Refer to the *IBM SPSS Modeler Server and Performance Guide* for more information. You can also make these changes manually in the configuration file (*options.cfg*) located in the *config* directory.

Whenever you install a new version, be sure to distribute IBM SPSS Modeler Server product's host name and port number to the end users.

# *Installing*

The Setup program installs the following components:

- A Windows service that manages end-user requests.
- Software that handles the data mining process.

*Note*: IBM® SPSS® Modeler Server must be installed on a hard drive on the computer on which the Setup program is running.

### *Windows Server 2003*

▶ Log on to the server computer with administrator privileges.

▶ If you downloaded an eAssembly, double-click the file and extract the installation files.

▶ Insert the DVD into the DVD drive; the AutoPlay menu will appear. Alternatively, go to the location where the installation files were extracted and click on *setup.exe*.

▶ Choose Install IBM SPSS Modeler Server, and then follow the instructions that appear on the screen.

### *Windows Server 2008*

You must run the AutoPlay or, if using downloaded files, *setup.exe* as administrator:

▶ If you downloaded the product, double-click the downloaded file and extract the installation files.

▶ If installing from a DVD, close the AutoPlay window that automatically appeared when you inserted the DVD into your DVD drive.

▶ Using Windows Explorer, browse to the DVD drive. Alternatively, browse to the location where the installation files were extracted.

▶ Right-click *setup.exe* at the root of the DVD and choose Run as Administrator. Alternatively, go to the location where the installation files were extracted and click on *setup.exe*.

▶ On the AutoPlay menu, choose Install IBM SPSS Modeler Server, and then follow the instructions that appear on the screen.

# *Destination*

You can install in a different destination folder, but you must install on the computer from which the setup is being run (you cannot install to a network location).

If you are installing on the same computer with other Server products, install in a *separate* directory. Do not install multiple Server products in the same directory.

### IP Address and Port Number

The Setup program will supply a default IP address and port number for the server computer to use. If necessary, the port number can be updated in the configuration file (*options.cfg*) or in the Administration Console for IBM® SPSS® Collaboration and Deployment Services Deployment Manager. For more information, see the topic Installing the Administration Console for IBM SPSS Collaboration and Deployment Services Deployment Manager on p. 5 .

## Troubleshooting an Installation

### Invalid digital signature on installation

SPSS Modeler products use IBM-issued certification for digital signing. In certain circumstances you may see the following error on trying to install SPSS Modeler products:

Error 1330. A file that is required cannot be installed because the cabinet file filename has an invalid digital signature...

#### Windows XP or Windows Server users

You may see this message when installing under Windows XP or Windows Server 2003, typically with a cabinet file greater than 500MB. To correct this problem, install the following Windows update:

For Windows XP: *http://support.microsoft.com/kb/960554/en-us*

For Windows Server: *http://support.microsoft.com/kb/888303/en-us*

#### All Windows users

You see this message if you try to install SPSS Modeler products on a machine that has no Internet connection and does not have the correct certificate installed. Use the following procedure to correct this problem.

1. Click OK to acknowledge the message.

2. Click Cancel to exit from the installer.

3. If the machine on which you want to install has no Internet connection, perform the next step on an Internet-connected machine and copy the *.cer* file to the machine where you want to install.

4. From *http://www.verisign.com/support/roots.html*, scroll down to locate the VeriSign Class 3 Primary CA - G5 root Certification Authority (CA). Download this root CA and save it as a *.cer* file.

5. Double-click the *.cer* file.

6. On the General tab, click Install Certificate.

7. Follow the instructions in the Certificate Import Wizard, using the default options and clicking Finish at the end.

8. Retry the installation.

## *Maximum number of SPSS Modeler Server connections exceeded on Windows Server 2003*

On Windows Server 2003, the maximum number of SPSS Modeler Server connections is smaller than for other platforms. You can increase the number of connections by modifying the Windows registry as follows.

1. From the Start menu, click Run.

2. Type regedit and click OK.

3. In the Registry Editor, navigate to:

   HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\Session Manager\SubSystems

4. Double-click the name Windows.

5. In the Value Data field, locate the SharedSection values (for example, SharedSection=1024,20480,768).

6. Change the third of these values (if present) to a smaller value, for example SharedSection=1024,20480,512. Note that, if the third value is not present, it is taken to be the same as the second value.

7. Choose
   File > Exit

   to close the Registry Editor.

# *After You Install IBM SPSS Modeler Server*

This section describes some required and optional steps that you can perform after installation. It does not describe all possible configuration options. You can find information about all the configuration options in the *IBM SPSS Modeler Server and Performance Guide*.

## *Installing the Administration Console for IBM SPSS Collaboration and Deployment Services Deployment Manager*

The IBM® SPSS® Collaboration and Deployment Services Deployment Manager provides a user interface to monitor and configure your IBM® SPSS® Modeler Server installations, and is available free-of-charge to current customers of that product. Deployment Manager can only be installed on Windows computers; however, it can administer IBM SPSS Modeler Server installed on any supported platform.

To install this component:

▶ Insert the IBM® SPSS® Modeler ServerDVD into the DVD drive. The AutoPlay feature presents a menu.

▶ On the AutoPlay menu, click Install Modeler Administration Console, and then follow the instructions that appear on the screen.

### Configuring IBM SPSS Modeler to Work with IBM SPSS Statistics

To enable IBM® SPSS® Modeler to use the Statistics Transform, Statistics Model, and Statistics Output nodes, you must have a copy of IBM® SPSS® Statistics installed and licensed on the computer where the stream is run.

If running SPSS Modeler in local (standalone) mode, the licensed copy of SPSS Statistics must be on the local computer.

When you have finished installing this copy of SPSS Modeler Client, you will also need to configure it to work with SPSS Statistics. From the main client menu, choose:
Tools > Options > Helper Applications

and on the SPSS Statistics tab, specify the location of the local SPSS Statistics installation you want to use. For more information, see the *Source, Process and Output Nodes* guide or the online help for Helper Applications.

In addition, if running in distributed mode against a remote IBM® SPSS® Modeler Server, you also need to run a utility at the SPSS Modeler Server host to create the *statistics.ini* file, which indicates to SPSS Statistics the installation path for SPSS Modeler Server. To do this, from the command prompt, change to the SPSS Modeler Server*bin* directory and, for Windows, run:

statisticsutility -location=<IBM SPSS Statistics_installation_path>/

Alternatively, for UNIX, run:

./statisticsutility -location=<IBM SPSS Statistics_installation_path>/bin

If you do not have a licensed copy of SPSS Statistics on your local machine, you can still run the Statistics File node against a SPSS Statistics server, but attempts to run other SPSS Statistics nodes will display an error message.

### Checking the Server Status

▶ On the computer where you installed IBM® SPSS® Modeler Server, select Services from Administrative Tools on the Control Panel.

▶ Locate IBM SPSS Modeler Server in the list. If the service is not started, double-click its name and start it on the dialog box that appears. Note that if the service startup is configured to be Automatic, the service will start automatically whenever the computer is restarted.

▶ Click OK to close the dialog box.

IBM SPSS Modeler Server is now ready to accept connections from end users when they have been authorized.

## Connecting End Users

End users connect to IBM® SPSS® Modeler Server by logging in from the client software. See the *IBM SPSS Modeler Server and Performance Guide* for a description of how the software works and what you need to do to administer it. You must give end users the information that they need to connect, including the IP address or host name of the server machine. You also need to enable local logon for end users by adding them to the local logon policy. From the Windows Control Panel, choose Administrative Tools, then Local Security Policy, then Local Policies, then User Rights Assignment, then double-click Log On Locally and add users or groups.

## IBM SPSS Data Access Pack Technology

To read or write to a database, you must have an ODBC data source installed and configured for the relevant database, with read or write permissions as needed. The IBM® SPSS® Data Access Pack includes a set of ODBC drivers that can be used for this purpose, and these drivers are available on the IBM SPSS Data Access Pack DVD or from the download site. If you have questions about creating or setting permissions for ODBC data sources, contact your database administrator.

Database support in IBM® SPSS® Modeler is classified into three tiers, each representing a different level of support for SQL pushback and optimization, depending on the database vendor. The different levels of support are implemented by means of a number of system settings, which can be customized as part of a Services engagement.

The three tiers of database support are:

Table 1-2
*Database support tiers*

| Support tier | Description |
|---|---|
| Tier 1 | All possible SQL pushback is available, with database-specific SQL optimization. |
| Tier 2 | Most SQL pushback is available, with non-database-specific SQL optimization. |
| Tier 3 | No SQL pushback or optimization—only reading data from, and writing data to, the database. |

### Supported ODBC Drivers

For the latest information on which databases and ODBC drivers are supported and tested for use with SPSS Modeler 15, see the product compatibility matrices on the corporate Support site (*http://www.ibm.com/support*).

### Where to Install Drivers

Note that ODBC drivers must be installed and configured on each computer where processing may occur.

■ If you are running IBM® SPSS® Modeler in local (standalone) mode, the drivers must be installed on the local computer.

- If you are running SPSS Modeler in distributed mode against a remote IBM® SPSS® Modeler Server, the ODBC drivers need to be installed on the computer where SPSS Modeler Server is installed. For SPSS Modeler Server on UNIX systems, see also "Configuring ODBC drivers on UNIX systems" later in this section.

- If you need to access the same data sources from both SPSS Modeler and SPSS Modeler Server, the ODBC drivers must be installed on both computers.

- If you are running SPSS Modeler over Terminal Services, the ODBC drivers need to be installed on the Terminal Services server on which you have SPSS Modeler installed.

- If you are using the IBM® SPSS® Modeler Solution Publisher Runtime to run published streams on a separate computer, you also need to install and configure ODBC drivers on that computer.

**Note**: If you are using SPSS Modeler Server on UNIX to access a Teradata database you must use the ODBC Driver Manager that is installed with the Teradata ODBC driver. In order to make this change to SPSS Modeler Server please specify a value for ODBC_DRIVER_MANAGER_PATH near the top of the modelersrv.sh script where indicated by the comments. This environment variable needs to be set to the location of the ODBC Driver Manager that is shipped with the Teradata ODBC driver (/usr/odbc/lib in a Teradata ODBC driver default installation). You must restart SPSS Modeler Server for the change to take effect. For details of the SPSS Modeler Server platforms that offer support for Teradata access, and the Teradata ODBC driver version that is supported, see the corporate Support site at *http://www.ibm.com/support*.

### Configuring ODBC drivers on UNIX systems

By default, the DataDirect Driver Manager is not configured for SPSS Modeler Server on UNIX systems. To configure UNIX to load the DataDirect Driver Manager, enter the following commands:

```
cd modeler_server_install_directory/bin
rm -f libspssodbc.so
ln -s libspssodbc_datadirect.so libspssodbc.so
```

Doing so removes the default link and creates a link to the DataDirect Driver Manager.

## In-Database Modeling

IBM® SPSS® Modeler supports integrated modeling with IBM Netezza, IBM InfoSphere Warehouse, Microsoft Analysis Services, and Oracle Data Mining. Doing so allows you to harness the power of your database by using native algorithms provided by these vendors. You can build, score, and store models inside the database—all from within the SPSS Modeler application, combining the analytical capabilities and ease-of-use of SPSS Modeler with the power and performance of a database.

For more information, see the file *DatabaseMiningGuide.pdf*, available under the *\Documentation* folder on the IBM® SPSS® Modeler installation disk.

## *Uninstalling*

▶ From the Windows Start menu choose:
Settings > Control Panel

▶ From the Control Panel, choose Add/Remove Programs.

▶ Click the Change or Remove Programs button on the left, choose IBM® SPSS® Modeler Server from the list, and click Change/Remove.

*Note*: If you have more than one version of IBM SPSS Modeler Server installed on the computer, be sure to choose the version that you want to remove.

A message will be displayed when uninstallation is complete. This may take several minutes.