

IBM SPSS Modeler 14.2 Batch Installation for UNIX

The following instructions are for installing IBM® SPSS® Modeler Batch version 14.2.

IBM® SPSS® Modeler Batch provides the complete analytical capabilities of the standard SPSS Modeler Client but without access to the regular user interface. Batch mode allows you to perform long-running or repetitive tasks without your intervention and without the presence of the user interface on the screen. It must be run in distributed mode along with IBM® SPSS® Modeler Server (local mode is not supported).

System Requirements for IBM SPSS Modeler Batch

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

- **Operating system.** IBM AIX® 6.1 or 7.1 for 64-bit POWER systems; HP-UX 11i V3 for 64-bit Itanium systems; Oracle Solaris™ 9.x or 10 for 64-bit SPARC systems; Red Hat Enterprise Linux 5.x for 32-bit x86 systems; Red Hat Enterprise Linux 5.x or 6.x for 64-bit x64 or IBM System z systems; Red Hat Enterprise Linux Advanced Platform 5.x for 32-bit x86 systems; Red Hat Enterprise Linux Advanced Platform 5.x or 6.x for 64-bit x64 or IBM System z systems; SuSE Linux Enterprise Server 10 or 11 for 64-bit x64 or IBM System z systems
- **Hardware.** PowerPC processor, 233MHz or faster and IBM System p for IBM AIX; Itanium processor for HP-UX; UltraSPARC II (or better) for Solaris; Pentium or Pentium-class processor or higher for 32-bit Linux; x64 (AMD 64 and EM64T) processor family or IBM System z for 64-bit Linux
- **Minimum free disk space.** 1 gigabyte (GB) is recommended. 2 GB recommended if running on HP-UX.
- **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

Additional Requirements

You must ensure that kernel limits on the system are sufficient for the operation of SPSS Modeler Server. The data, memory, and file ulimits are particularly important and should be set to unlimited within the SPSS Modeler Server environment. To do this:

- ▶ Add the following commands to *modelersrv.sh*:

```
ulimit -d unlimited
```

```
ulimit -m unlimited
```

```
ulimit -f unlimited
```

- ▶ Restart SPSS Modeler Server.

Solaris.

In addition to aforementioned system requirements, installing on Solaris also requires the following version specific patches. Patches can be downloaded from <http://sunsolve.sun.com/pub-cgi/show.pl?target=patchpage>.

- *Solaris 2.9 Patch IDs* : 111711-16, 111712-16, and 111722-05 (C++)
- *Solaris 2.10 Patch IDs*: 119963 (C++)

You must also have the library */usr/lib/iconv/646%UTF-8* installed on your system. If this is not currently installed, please install the *SUNWiniu8* or *SUNWiniu8x* packages, which will install this library as part of the Indic iconv modules for UTF-8.

Linux 32-bit.

The following additional packages are needed to run properly. You can download these packages from the Red Hat Network. You may need to register to access the network (<https://rhn.redhat.com/network/software/search.pxt>). Use the search feature to search and drill down to each specific package version.

- The *libstdc++* package (version: *libstdc++-3.2.3-X.Y.i386* where *X.Y* is 22.1 or later).
- The *libgcc* package (version: *libgcc-3.2.3-X.Y.i386* where *X.Y* is 22.1 or later).
- The *compat-libstdc++* package (version: *compat-libstdc++-33-3.2.3-X.Y.i386* where *X.Y* is 47.3 or later).

Linux 64-bit.

The following additional packages are needed to run properly. You can download these packages from the Red Hat Network. You may need to register to access the network (<https://rhn.redhat.com/network/software/search.pxt>). Use the search feature to search and drill down to each specific package version.

- The *libstdc++* package (version: *libstdc++-3.2.3-X.Y.x86_64* where *X.Y* is 22.1 or later).

- The *libgcc* package (version: *libgcc-3.2.3-X.Y.x86_64* where *X.Y* is 22.1 or later).
- The *compat-libstdc++* package (version: *compat-libstdc++-33-3.2.3-X.Y.x86_64* where *X.Y* is 47.3 or later).

AIX.

In addition to aforementioned system requirements, installing on AIX also requires the following:

- XL C++ runtime should be at least at level 8.0.0.9 (lspp -l xlC.rte). The filesets that contain the libraries is called IBM C++ Runtime Environment Components for AIX and can be downloaded from <http://www.ibm.com/software/awdtools/xlcpp/support/>.
- XL FORTRAN runtime should be at least at level 10.1.0.4 (lspp -l xlfrte). The filesets that contain the libraries is called XL Fortran Enterprise Edition V10.1 for AIX Runtime Environment and can be downloaded from <http://www.ibm.com/software/awdtools/fortran/xlfortran/support/>.

HP-UX.

In addition to aforementioned system requirements, installing on HP-UX also requires that C++ Runtime libraries be installed. You can download them as patch PHSS_26946, as shown in the following table. To access the patches, go to <http://www4.itrc.hp.com/service/patch/mainPage.do>. Registration is required but is free of charge.

Installing IBM SPSS Modeler Batch

Installing from the DVD

- ▶ Insert the IBM® SPSS® Modeler Server installation disk into the drive and ensure that you can access the drive. On Solaris, the volume manager (the vold daemon) must be running. On HP-UX, if you have problems installing, ask your administrator to mount the DVD-ROM device using the `-o cdcase` option.
- ▶ Change directories to the DVD mount point.
- ▶ Change directories to the *modelbat* directory.
- ▶ Change to the relevant platform directory.
- ▶ Run the *.bin* install script. For example:

```
./modelerbatchlinux.bin -i console
```
- ▶ Introduction details are displayed. Press Enter to continue.
- ▶ Licensing information is displayed. Read the license, type 1 to accept it, and press Enter to continue.
- ▶ You are prompted to type the installation location. To use the default directory (*/usr/IBM/SPSS/ModelerBatch<nn>*, where *<nn>* is the version number), press Enter. If you

specify a directory other than the default, make sure that the path name does not contain extended ASCII characters, the space character, or the ampersand (&) character.

- ▶ You are prompted to confirm the installation location. When it is correct, type y and press Enter.
- ▶ A pre-installation summary is displayed to confirm your entries so far. Press Enter to continue.
- ▶ A message is displayed to say the installation routine is ready to run. Press Enter to continue.
- ▶ A progress bar is displayed whilst the installation routine runs. When the installation is complete, press Enter to exit from the installer.

Notes for Installation

This section contains special instructions for this installation.

Licensing Your Product

No license is required for IBM® SPSS® Modeler Batch.

Starting IBM SPSS Modeler Batch

You can use the command line of your operating system to launch IBM® SPSS® Modeler as follows:

- ▶ On a computer where IBM® SPSS® Modeler is installed, open a DOS, or command-prompt, window.
- ▶ To launch the SPSS Modeler interface in interactive mode, type the `modelerclient` command followed by the required arguments; for example:

```
modelerclient -stream report.str -execute
```

The available arguments (flags) allow you to connect to a server, load streams, run scripts, or specify other parameters as needed.

For more information, see the *IBM® SPSS® Modeler Batch User's Guide*, available under the `\Documentation\<language>` folder on the IBM® SPSS® Modeler ServerDVD.

IBM SPSS Modeler Server Access

IBM® SPSS® Modeler Batch must be run in distributed mode along with IBM® SPSS® Modeler Server. Contact your system administrator for information about servers, user IDs, and passwords.

For more information, see the file *ServerandPerformanceGuide.pdf*, available under the `\Documentation\<language>` folder on the SPSS Modeler ServerDVD.

Database Access

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 installation disk shipped with this release. 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 1-1
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 14.2, 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.
- 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>.

Licensing Additional Options

The following options can be installed with IBM® SPSS® Modeler and can be enabled by purchasing an additional license. You can enter this additional license in the SPSS Modeler license wizard (Start menu > [All] Programs > IBM® SPSS® Modeler14.2 > License Authorization Wizard).

- **SPSS Text Analytics.** IBM® SPSS® Text Analytics is a fully integrated add-on for SPSS Modeler that uses advanced linguistic technologies and Natural Language Processing (NLP) to rapidly process a large variety of unstructured text data, extract and organize the key concepts, and group these concepts into categories.
- **Modeler Solution Publisher.** When Solution Publisher is licensed, you can use the Publish tab of an SPSS Modeler export node to create a “packaged” version of a complete SPSS Modeler stream. This packaged version can be executed by an external Runtime engine or embedded in an external application for use outside the standard SPSS Modeler environment.

In-Database Modeling

IBM® SPSS® Modeler supports integrated modeling with Oracle Data Mining, Analysis Services from Microsoft, and IBM Intelligent Miner, allowing customers to leverage the power of their databases 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 specific requirements to support database modeling, see the *SPSS Modeler In-Database Mining Guide*, available under the `\documentation` folder on the installation disk.