IBM SPSS Statistics Server
Version 29

UNIX Installation Instructions

IBM

Contents

Chapter 1. Installation instructions

The following instructions are for installing IBM® SPSS® Statistics Server version 29.

System requirements

To view the system requirements for IBM SPSS Statistics Server, go to https://www.ibm.com/software/reports/compatibility/clarity/softwareReqsForProduct.html.

Additional Requirements

Client software

Beginning with version 20.0.1, the client software does not have to be at the same release level as the server software to which it is connecting. For example, the 20.0.1 client can connect to the 21 server software, and the 21 client can connect to a 20.0.1 server. Note that you can also run multiple versions of the server software on a server computer.

Mixing release levels is allowed only to simplify upgrades. Release levels can be staggered during the upgrade period, and clients do not need to be upgraded simultaneously. However, it is not recommended to maintain this configuration for an extended time. If the server is newer than the client, the server may create output that cannot be read by the client. If the client is newer than the server, syntax submitted by the client may not be recognized by the server. Therefore, you should upgrade the client or server software as soon as possible, depending on which one lags the other.

When you distribute connection information to end users, keep in mind which version of the client software they are running and be sure that they have the connection information for a matching server version.

Locales for UNIX servers

The IBM SPSS Statistics Server locale is automatically synchronized with the client locale according to mappings defined in the *loclmap.xml* file, which is located in the *config* subdirectory of the IBM SPSS Statistics Server installation directory. If you need to add locales specific to your system or you need to change the order in which IBM SPSS Statistics Server looks for an appropriate locale, you can modify *loclmap.xml*. You can also issue the SHOW LOCALE command to display the locale that the IBM SPSS Statistics Server is using. For more information about locales, see the *IBM SPSS Statistics Server Administrator's Guide* (on the CD-ROM in */Documentation/<language>/Manuals*).

Upgrading

If you do not currently have IBM SPSS Statistics Server installed on the target computer, skip to "Installing" on page 2 . 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 28.0 and the old version is 27.0.1, 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 28.0 and the old version is 27.0.1, you can install the new version in addition to the current version.

To Replace the Current Version

1. Back up your existing configuration file (*statisticsd.conf*) to another location. You can use the administration console to check the location of your configuration file.
2. You must also backup your JRE keystore certification files (backup the contents of the *../JRE/security/cacerts* directory).
3. Remove the old version. Follow the steps in "Uninstalling" on page 5.
4. Install the new version. Follow the steps in "Installing" on page 2.
5. Compare your old configuration file with the new configuration file and transfer any options settings that you want to preserve in the new file. Do not replace the new file with the old one.
6. Replace the JRE keystore certification files in *../JRE/security/cacerts* directory with the backed-up files from step 2.

To Add the New Version

1. Follow the steps in "Installing" on page 2 , with the following comments.

- **Destination directory**. Install the new version in the different location from the old version.
- **Port number.** Use a different port number for the new version. By default, a different port number is set for the new version.
- **Temporary files**. Use the same temporary file location for both versions. By default, the same location is used for both versions.

The port number and temporary file location are specified in the administration console. Refer to the *Administration Consoles* section of the *Deployment Manager User's Guide* (included in the help for IBM SPSS Collaboration and Deployment Services) for more information.

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

Installing

You can install IBM SPSS Statistics Server as *root* or as a non-root user. If your site restricts the use of the *root* password, use an authentication method that supports running as non-root (see the IBM SPSS Statistics Server Administrator's Guide). Then install the product as the user who will run the daemon.

Important: The file system on which you install IBM SPSS Statistics Server must be mounted with the `suid` option. The product will not work correctly if the file system is mounted with the `nosuid` option.

1. **If using physical installation media, prepare the DVD drive.** Insert the product DVD into the DVD drive and ensure that you can access the drive.
2. **If using downloaded installation media, extract the installation files.** The downloaded media file is a compressed archive. Extract the files in the archive.
3. **Check hard drive space.** In addition to the permanent hard drive space specified in , you need temporary disk space for the installer files. The installer files are extracted to your system's temporary folder. If there is not enough space in the temporary folder, the installer files are extracted to your home folder. If neither location has enough space, the installer cannot continue. In this case, you can temporarily set the `IATEMPDIR` environment variable to a location with adequate space.
4. **Check the destination directory.** By default, IBM SPSS Statistics Server is installed to */opt/IBM/SPSS/StatisticsServer<version>* . If desired, you can change this path in the graphical installation wizard. If you are going to run the silent installer, you can set the value for USER_INSTALL_DIR in *installer.properties*. Regardless, you need read and write permissions to the installation directory, so log on with an account that has sufficient permissions. *Note*: If you are upgrading by adding a new version of the product, install the new version in a separate directory.
5. **If using physical installation media, copy the installer file.** Copy the installer file from the DVD to a directory on the server machine. The installer files are located in *UNIX/InstallationFiles* directory at the root of the DVD.

Note: The name of the file depends on the specific release and platform.

6. **Change execute permissions of installer.** Be sure that the installer is executable by the user who will run the installer.

7. **Run the installer.** You can run the installer in a graphical user interface or silently. If you plan to run IBM SPSS Statistics Server as a user other than *root*, run the installer as the same user who will run the product. Instructions for each method appear below.

Graphical installation wizard

The graphical installation wizard displays a graphical interface that will ask you about installation parameters. You will need an X Window System.

1. At the UNIX prompt, change to the directory where the installer file was copied or extracted:

2. Run the installer by executing the following command:

   ```
   ./<installer_name>
   ```

3. After the installation wizard is launched, follow the instructions that appear on the screen.

Silent installation

Silent mode enables the installation without any user interaction. Installation parameters are specified as a properties file.

1. If you have physical installation media, copy *installer.properties* from the *UNIX/Administration* directory at the root of the DVD to the same location where you copied the installer.

2. Go to the location where you copied or extracted the installer files and open *installer.properties* in a text editor.

3. Set the value for USER_INSTALL_DIR to the desired installation directory. The directory path cannot contain spaces. If you want to install to the default installation directory, comment out this line; do not leave it set to <value>.

4. Save the file.

5. Run the installer by executing the following command:

   ```
   ./<installer_name> -f installer.properties
   ```

   Where *<installer_name>* is the installer *.bin* file.

After You Install IBM SPSS Statistics 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 Statistics Server Administrator's Guide*.

Starting the Process

IBM SPSS Statistics Server runs as a daemon process and has root privileges by default. IBM SPSS Statistics Server can be configured to run without root privileges. Refer to the *IBM SPSS Statistics Server Administrator's Guide* for more information. You need to choose an authentication method that does not require that the daemon runs as root.

IBM SPSS Statistics Server must be started by the **root user** or the user who owns the analytic server software daemon . Start the application by running a startup script, *start_statistics_server* , which is included in the */bin* subdirectory of the installation directory. The startup script configures the environment for and executes the software.

1. Log in as *root* or the user who owns the analytic server software daemon.

2. Change to the */bin* subdirectory of the IBM SPSS Statistics Server installation directory. The startup script must be run from this location.

3. Run the startup script. For example, at the UNIX prompt type:

```
./start_statistics_server -d
```

The `-d` parameter starts the application as a daemon process, which is the recommended way to run the software. You can also add the `-g <groupname>` parameter to run a separate instance of the server software for the specified group. The instance must have already been created. Refer to the IBM SPSS Statistics Server Administrator's Guide for more information about creating multiple instances for group authorization.

Note:

- If you are running another IBM SPSS Statistics Server product on the same computer, be sure to start each product from its installation directory, as shown in the above steps. Also, be sure to start IBM SPSS Statistics Server with a script that defines its environment; do not define the environment in an external script (for example, do not define the IBM SPSS Statistics Server environment in *.profile*).

- If the server computer does not support the localhost IP address (127.0.0.1/::1), then you must set the environment variable STATS_LH_OVERRIDE to YES before you start the server. STATS_LH_OVERRIDE is set from `statsenv.sh`, which is included in the `/bin` subdirectory of the installation directory. For information on starting and stopping the server, see the topic *Starting and Stopping the Server Software* in the IBM SPSS Statistics Server Administrator's Guide.

Additional options are recognized on the script's command line. For more information, see the *Configuration, Monitoring Usage, and Maintenance* chapter in the *IBM SPSS Statistics Server Administrator's Guide* .

Checking the Server Status

1. At the UNIX prompt, type:

```
ps –ef | grep statisticsd
```

2. Look at the output. If the server is running, you will see it as the first process in the list.

IBM SPSS Statistics Server is now ready to accept connections from end users when they have been authorized. See the topic "Connecting End Users" on page 4 for more information.

Connecting End Users

End users connect to IBM SPSS Statistics Server by logging in from the client software. See the *IBM SPSS Statistics Server Administrator's 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.

Example Files

Example files are installed in the IBM SPSS Statistics Server installation directory. They are available for end users who connect to the Server and want to test the software.

Administration Console Application

The administration console application is IBM SPSS Statistics Administration Console, which is installed as part of IBM SPSS Deployment Manager. The IBM SPSS Statistics Administration Console collects and displays information about IBM Corp. server products. It also allows you to control and configure server software, including IBM SPSS Statistics Server. Complete documentation for the IBM SPSS Statistics Administration Console is included in the *Administration Consoles* section of the *Deployment Manager User's Guide* (included in the help for IBM SPSS Collaboration and Deployment Services).

IBM SPSS Data Access Pack Technology

IBM SPSS Statistics Server has a **distributed architecture** that uses **ODBC** to access data. You can use IBM SPSS Data Access Pack for accessing data. IBM SPSS Data Access Pack is available for download or from the DVD.

For information about the data access technologies, including information on choosing, installing, and deploying a technology, refer to the *IBM SPSS Data Access Pack Installation Instructions for UNIX* .

There is additional information in the DataDirect online documentation, which includes Adobe Acrobat versions of detailed installation instructions, administration information, and ODBC reference guides. These documents are highly recommended if you plan to use IBM SPSS Data Access Pack technology.

Configuring IBM SPSS Statistics Server for Data Access

If you want to use the IBM SPSS Data Access Pack with IBM SPSS Statistics Server, you will need to configure the startup scripts. This is a critical step because data access will not work otherwise. For instructions, refer to the *IBM SPSS Statistics Server Administrator's Guide*.

IBM SPSS Statistics Batch Facility

The IBM SPSS Statistics Batch Facility is a batch-processing utility included with IBM SPSS Statistics Server. The IBM SPSS Statistics Batch Facility is intended for automated production of statistical reports. Automated production provides the ability to run IBM SPSS Statistics analyses without user intervention.

The IBM SPSS Statistics Batch Facility is automatically installed with IBM SPSS Statistics Server.

The IBM SPSS Statistics Batch Facility is distributed with a manual page, *statisticsb.1*, which is installed in the */bin* subdirectory of the installation directory. Copy it to the location in which you keep your manual pages.

For information about administering the IBM SPSS Statistics Batch Facility, see the *IBM SPSS Statistics Server Administrator's Guide* . For information about using the IBM SPSS Statistics Batch Facility, see the *IBM SPSS Statistics Batch Facility User's Guide*.

Uninstalling

Uninstall IBM SPSS Statistics Server by removing the program files.

To Remove the Program Files

1. Stop the server process. Instructions for stopping the server process are in the *IBM SPSS Statistics Server Administrator's Guide*.
2. Remove the installation directory.