Installation Guide for IBM SPSS Decision Management 6.2 on UNIX

Installing and configuring the product

Before installing IBM® SPSS® Decision Management, you must install and configure all prerequisite software, including IBM® SPSS® Collaboration and Deployment Services, and IBM® SPSS® Modeler Server. System requirements, supported application servers, databases, and environments depend on these prerequisites. For details on supported versions, see the support site at *http://www.ibm.com/support*.

After installing prerequisite software, follow the instructions in this document to install SPSS Decision Management on the same machine as IBM SPSS Collaboration and Deployment Services. The user installing the product must have permissions to install software under the operating system, and read and write permissions to the target installation directory. After installation, users can access the thin-client product via a web browser on any machine connected to your network.

SPSS Decision Management files are added to under the IBM SPSS Collaboration and Deployment Services installation directory (for example, */opt/IBM/SPSS/Collaboration and Deployment Services/4.2/Server/components/decision-management*).

Install prerequisite software

▶ Install IBM® SPSS® Collaboration and Deployment Services. See the IBM SPSS Collaboration and Deployment Services documentation for instructions. For details on supported versions, see the support site at *http://www.ibm.com/support*.

▶ Install IBM® SPSS® Modeler Server. You can install on a different machine, or the same machine as IBM SPSS Collaboration and Deployment Services, however SPSS Modeler Server must be running in the same time zone as the application server used by IBM SPSS Collaboration and Deployment Services. See the IBM® SPSS® Modeler documentation for instructions. For details on supported versions, see the support site at *http://www.ibm.com/support*.

▶ Install the SPSS Modeler Deployment Plugins. These are found on the SPSS Modeler Deployment DVD, and must be installed on the same machine where IBM SPSS Collaboration and Deployment Services is installed. See the SPSS Modeler documentation for instructions.

▶ Set up a server definition and credentials for your SPSS Modeler Server in IBM® SPSS® Collaboration and Deployment Services Deployment Manager client.

Install IBM SPSS Decision Management

IBM® SPSS® Decision Management must be installed on the same machine where IBM® SPSS® Collaboration and Deployment Services is installed.

▶ Log on to the machine where IBM SPSS Collaboration and Deployment Services is installed.

▶ Stop the IBM SPSS Collaboration and Deployment Services server. See the IBM SPSS Collaboration and Deployment Services documentation for instructions.

Installing from a DVD

▶ Insert the SPSS Decision Management installation disc.

▶ Start a terminal application and ensure you can access the disc drive. On Solaris, the volume manager (the vold daemon) must be running.

▶ Change the directory to the DVD mount point.

▶ At the command prompt, run the installation for your platform, for example
`./SPSS_Decision_Mgmt_62_hpux.bin`.

Note: This command will only work if you mounted the DVD with the option to execute binary files. As an alternative, you can create a copy of the DVD locally. Make sure the permissions for the installation file are set to `execute` before running the file.

▶ Follow the instructions in the installation program to install the product into IBM SPSS Collaboration and Deployment Services.

Installing from a downloaded file

▶ Start a terminal application.

▶ Change to the directory where you downloaded the file.

▶ At the command prompt, run the downloaded SPSS Decision Management installation for your platform, for example `./SPSS_Decision_Mgmt_62_hpux.bin`.

Note: Make sure the permissions for the installation file are set to `execute` before running the file.

Note: When installing on Z Linux, it may be necessary to specify the path to the Java executable as an LAX_VM parameter, for example:

```
./SPSS_Decision_Mgmt_62_zlinux.bin LAX_VM
/opt/IBM/WebSphere/AppServer/java/bin/javaCollaboration_and_Deployment_Services/4.2.
```

▶ Follow the instructions in the installation program to install the product into IBM SPSS Collaboration and Deployment Services.

Install extensions for IBM SPSS Modeler

Extensions to IBM® SPSS® Modeler must be installed on every machine that hosts one of the following SPSS Modeler products, and will be used with IBM® SPSS® Decision Management or IBM® SPSS® Modeler Advantage.

- IBM® SPSS® Modeler Client
- IBM® SPSS® Modeler Server

- IBM® SPSS® Modeler Batch
- IBM® SPSS® Modeler Solution Publisher

The extensions are required to add support for the rule and optimization nodes used by SPSS Decision Management and IBM SPSS Modeler Advantage, and to install sample data files used in examples.

▶ Stop the IBM® SPSS® Collaboration and Deployment Services server. See the IBM SPSS Collaboration and Deployment Services documentation for instructions.

▶ Log on to the machine where one or more SPSS Modeler components are installed.

Installing from a DVD

▶ Insert the SPSS Decision Management installation disc.

▶ Start a terminal application and ensure you can access the disc drive. On Solaris, the volume manager (the vold daemon) must be running.

▶ Change the directory to the DVD mount point.

▶ At the command prompt, run the SPSS Modeler extensions installation for your platform, for example `./SPSS_Decision_Mgmt_62_Modeler_Lib_hpux.bin`.

Note: This command will only work if you mounted the DVD with the option to execute binary files. As an alternative, you can create a copy of the DVD locally. Make sure the permissions for the installation file are set to `execute` before running the file.

▶ Follow the instructions in the installation program to install the extensions for SPSS Modeler.

Installing from a downloaded file

▶ Start a terminal application.

▶ Change to the directory where you downloaded the file.

▶ At the command prompt, run the downloaded SPSS Modeler extensions installation for your platform, for example `./SPSS_Decision_Mgmt_62_Modeler_Lib_hpux.bin`.

Note: Make sure the permissions for the installation file are set to `execute` before running the file.

Repeat this process on every machine that has one of the aforementioned SPSS Modeler products installed and will be used with SPSS Decision Management or IBM SPSS Modeler Advantage.

Along with extensions, sample data is installed under the SPSS Modeler Server *Demos* directory, where it can be accessed for use with SPSS Decision Management applications.

Install prebuilt IBM SPSS Decision Management applications

A number of prebuilt applications are available for IBM® SPSS® Decision Management, including the following:

- IBM® SPSS® Modeler Advantage
- IBM® SPSS® Decision Management for Customer Interactions (including IBM® SPSS® Rules Management)
- IBM® SPSS® Decision Management for Claims (including SPSS Rules Management)

Before installing prebuilt applications, ensure that SPSS Decision Management and extensions for IBM® SPSS® Modeler have been installed as described above.

► Log on to the machine where IBM® SPSS® Collaboration and Deployment Services is installed.

► Stop the IBM SPSS Collaboration and Deployment Services server. See the IBM SPSS Collaboration and Deployment Services documentation for instructions.

Installing from a DVD

► Insert the SPSS Decision Management installation disc.

► Start a terminal application and ensure you can access the disc drive. On Solaris, the volume manager (the vold daemon) must be running.

► Change the directory to the DVD mount point.

► At the command prompt, run the installation for the desired application and platform, for example `./SPSS_Decision_Mgmt_62_Claims_hpux.bin`.

Note: This command will only work if you mounted the DVD with the option to execute binary files. As an alternative, you can create a copy of the DVD locally. Make sure the permissions for the installation file are set to `execute` before running the file.

► Follow the instructions in the installation program to install the application into IBM SPSS Collaboration and Deployment Services.

► Repeat for each application you want to install.

Installing from a downloaded file

► Start a terminal application.

► Change to the directory where you downloaded the file.

► At the command prompt, run the installation for the desired application and platform, for example `./SPSS_Decision_Mgmt_62_Claims_hpux.bin`.

Note: Make sure the permissions for the installation file are set to `execute` before running the file.

► Follow the instructions in the installation program to install the application into IBM SPSS Collaboration and Deployment Services.

Sample data and stream files are also available for use with each application. See the "Administering Applications" section in the *User's Guide* for details on these components.

Set IBM SPSS Modeler Server Name and credentials

After installing IBM® SPSS® Decision Management, you must specify the server name and credentials for the IBM® SPSS® Modeler Server to use. The server name and credentials were defined in the IBM® SPSS® Collaboration and Deployment Services Deployment Manager client software.

► Start the IBM® SPSS® Collaboration and Deployment Services server and SPSS Modeler Server.

► Open the Deployment Manager client software and log on to your IBM® SPSS® Collaboration and Deployment Services Repository connection.

► Under Resource Definitions, expand Credentials and make note of the name used for your SPSS Modeler Server credentials. Then expand Servers and make note of the name used for your SPSS Modeler Server definition.

► Open the browser-based IBM® SPSS® Collaboration and Deployment Services Deployment Manager, a thin-client interface for performing setup and system management tasks:

http://hostname:port/config

Where *hostname* is the name or IP address of the machine where IBM SPSS Collaboration and Deployment Services is installed and *port* is your application server port number. Log on using the IBM SPSS Collaboration and Deployment Services administrator account credentials.

► Under Configuration, go to the Decision Management section. Enter the names of your SPSS Modeler Server connection and credentials noted above. The names must exactly match the names defined in Deployment Manager client.

► Click Set to save and then log out.

Installing and provisioning JAXB

IBM® SPSS® Decision Management requires that Java Architecture for XML Binding (JAXB) version 2.1 be installed along with the application server.

■ JAXB jar files can be copied from the IBM® SPSS® Collaboration and Deployment Services installation folder under *C:\Program Files\IBM\SPSS\Collaboration and Deployment Services\4.2\\components\modeler\ext\lib\spss.rules\lib*.

■ Installation of JAXB should be done after IBM SPSS Collaboration and Deployment Services has been installed, but before running SPSS Decision Management.

■ It is critical to ensure that JAXB version 2.1 is used. Earlier versions of JAXB may cause corrupted files to be saved, or lead to other unexpected results in some situations.

■ After installing JAXB , the IBM SPSS Collaboration and Deployment Services server should be restarted. See the IBM SPSS Collaboration and Deployment Services documentation for instructions. Depending on the application server and Java version, additional steps may be required to provision JAXB as detailed below.

WebSphere 7.0 with Java version 1.6

Patch 4 or later is required.

WebSphere 6.1 with Java version 1.5

Place the following files in the *AppServer/lib/ext* directory of your WebSphere® installation:

■ *jaxb-api.jar*

■ *jaxb-impl.jar*

■ *jsr173_1.0_api.jar*

JBoss Application Server 5.1 with Java 1.6

No special provisioning required.

Other supported JBoss Application Server environments (4.3 with Java 1.5 or 1.6, 4.2.x with Java 1.5 or 1.6, 5.1 with Java 1.5)

Place the following files in the *lib/endorsed* directory of your JBoss Application Server installation:

■ *jaxb-api.jar*

■ *jaxb-impl.jar*

■ *jsr173_1.0_api.jar*

■ *mail.jar**

■ *activation.jar**

*The files *mail.jar* and *activation.jar* are provided with JBoss Application Server, and can be copied from the Jboss *server\default\lib* directory.

Oracle WebLogic Server 11 with Java 1.6

Specify -XstrictFP as a parameter to the JVM or switch to a different JVM. This is to prevent JRockit producing wrong numerical results for expressions including NaN.

Oracle WebLogic Server 10.0 with Java 1.5

Perform the following steps:

▶ Copy the following files to the Oracle WebLogic Server*[domain]/lib* directory *(C:\Oracle\WL10\wlserver_10.0\domain1\lib)* :

■ *jaxb-api.jar*

■ *jaxb-impl.jar*

■ *jsr173_1.0_api.jar*

▶ Add the following `EXT_PRE_CLASSPATH` definition to the start of the `ADD EXTENSTIONS TO CLASSPATHS` section of the *[domain]/bin/setDomainEnv.cmd* script (*.sh* bat for UNIX as in later example):

```
@REM End IBM SPSS Configuration
set DOMAIN_HOME=C:\Oracle\WL10\user_projects\domain1
@REM IBM SPSS Decision Management JAXB Provisioning
set EXT_PRE_CLASSPATH=lib/jaxb-api.jar;lib/jaxb-impl.jar;lib/jsr173_1.0_api.jar;%EXT_PRE_CLASSPATH%
```

▶ On UNIX, edit the *.sh* file instead. Note use of colons (:) instead of semicolons (;), exact syntax may vary by UNIX shell:

```
# End SPSS Configuration
DOMAIN_HOME="/app/qatest/dm6/weblogic10/user_projects/domains/Domain_1"
# SPSS Decision Management JAXB Provisioning
EXT_PRE_CLASSPATH=lib/jaxb-api.jar:lib/jaxb-impl.jar:lib/jsr173_1.0_api.jar:${EXT_PRE_CLASSPATH}
export EXT_PRE_CLASSPATH
${DOMAIN_HOME}/bin/startWebLogic.sh $*
```

▶ Specify -XstrictFP as a parameter to the JVM or switch to a different JVM. This is to prevent JRockit producing wrong numerical results for expressions including NaN.

Starting the product

▶ Make sure both IBM® SPSS® Collaboration and Deployment Services server and IBM® SPSS® Modeler Server are running. If you need to start them, wait several minutes before launching IBM® SPSS® Decision Management in a supported web browser:

http://hostname:port/DM

Where *hostname* is the name or IP address of the machine where IBM SPSS Collaboration and Deployment Services is installed and *port* is your application server port number. Log on using the IBM SPSS Collaboration and Deployment Services administrator account credentials, or other user credentials configured in IBM® SPSS® Collaboration and Deployment Services Deployment Manager.

Notes:
- You cannot log on until you've installed at least one sample application, or configured your own. See the *Application Designer's Guide* for details about customizing and configuring applications.
- You cannot log on as a SPSS Decision Management administrator until you've properly configured one or more administrative users or groups in Deployment Manager. For instructions, see the user's guide for the prebuilt application you installed.

Running a Silent Installation

A silent, unattended installation does not display a graphical interface and does not require any user intervention. To run a silent installation, you will first need to create the installer properties file.

Note: These instructions describe the steps to configure and run a silent installation for IBM® SPSS® Decision Management, as an alternative to the standard installation procedure described in the topic *Install IBM SPSS Decision Management* above. For information on running a silent installation of IBM® SPSS® Collaboration and Deployment Services or IBM® SPSS® Modeler Server, see the documentation for those products.

How to Create the Installer Properties File

Create the installer properties file by running the installation executable from the command line with the -r switch. Running the installer with this switch will not install the product. Instead, the installer will create the installer properties file, which "records" your choices.

► Copy the installation executable from */DecisionManagement/<OS>* at the root of the DVD to your computer.

► Run the installation executable from the command line with the -r switch. Following is an example on Windows:

```
install_file.exe -r
```

Where *install_file.exe* is the name of the file to execute.

On Linux:

```
sudo ./setup_file.bin -r
```

Where *setup_file.bin* is the name of the file to execute.

► Select your choices for the installation. When you finish, the installer will create the installer properties file, *installer.properties*, in the location from which you ran the installer.

Figure 1-1
Sample installer.properties file

```
# Tue Jun 29 13:21:13 CDT 2010
# Replay feature output
# ———
# This file was built by the Replay feature of InstallAnywhere.
# It contains variables that were set by Panels, Consoles or Custom Code.

#Has the license been accepted
#———
LICENSE_ACCEPTED=TRUE

#Choose Install Folder
#———
USER_INSTALL_DIR=C:\\Program Files\\IBM\\SPSS\\Collaboration and Deployment Services\\4.2\\Server

#Administrator Account Credentials
#Note password is encrypted –do not edit by hand
#———
VAR_RPM_USER=admin
VARIABLE_RPM_PASSWORD=9C9CD6C2DBE392C2
```

When installing multiple products or applications, a separate *installer.properties* file must be created for each.

How to Run the Silent Install

▶ Using a terminal application, run the installation executable with the -f switch followed by the location of the options file surrounded by quotation marks. Following is an example on Windows:

```
install_file.exe -f "c:\temp\installer.properties" -i silent
```

Where *install_file.exe* is the name of the file to run.

On Linux:

```
sudo ./setup_file.bin -f "/root/installer.properties" -i silent
```

Where *setup_file.bin* is the name of the file to execute.

When installing multiple products or components, be sure to wait until one completes before starting the next. If a silent installation is launched while another is still running in the background, an error may result.

Uninstalling the product

▶ Log on to the machine where IBM® SPSS® Collaboration and Deployment Services is installed.

▶ Stop the IBM SPSS Collaboration and Deployment Services server. See the IBM SPSS Collaboration and Deployment Services documentation for instructions.

▶ In the IBM SPSS Collaboration and Deployment Services installation directory, delete the *decision-management* directory (for example, */opt/IBM/SPSS/Collaboration and Deployment Services/4.2/Server/components/decision-management*). Saving a backup copy of this folder before deleting is recommended.