

*IBM SPSS Modeler Server Deployment
Adapter Installation*

IBM

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IBM SPSS Modeler Server Adapter

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IBM SPSS Modeler Server Adapter Installation

About IBM SPSS Modeler Server Adapter installation

This guide provides installation instructions and information relating to the products available on the IBM® SPSS® Modeler Server Adapter installation media.

The adapters enable IBM SPSS Modeler and IBM SPSS Modeler Server to interact with an IBM SPSS Collaboration and Deployment Services repository. For more information, see the *IBM SPSS Modeler User's Guide*.

System requirements

Before you can install the adapter, you must be able to connect to a fully-functioning IBM SPSS Collaboration and Deployment Services repository. System requirements for this are given in the *Installation and Configuration Guide* for the appropriate repository version. Kerberos credentials are supported for running jobs and managing user roles.

IBM Installation Manager **1.6.2** must be installed on the machine where the adapter will be installed, and it must be configured to use the installation files. See the following section.

Note: Installing and running the adapter will consume additional resources of the repository host, most importantly memory. It is recommended that, prior to installation, you consult the application server documentation to confirm you have sufficient memory for your selected application server.

The repository server needs to have a valid Java Runtime Environment (JRE) set up in the PATH or JAVA_HOME environment variables, otherwise installation will fail.

Make sure you have sufficient free disk space before starting installation. A minimum of 10 GB is recommended. This installation is for the 7.x version of the adapters and uses IBM Installation Manager to install all the adapters at the same time, so the installation may take longer than in previous releases.

If you plan to use the adapter with IBM SPSS Modeler Entity Analytics, Microsoft Visual C++ 2010 runtime library must also be installed on the machine where the adapter will be installed.

Installation files

Before installing, you must obtain the installation files.

To obtain the installation files do one of the following:

- Access the physical media, and use local installation: You can access the product repositories on the product media. Use Installation Manager to install the product from the product repositories on the media.
- Download the files from the Passport Advantage site, and use local installation: Licensed customers with a Passport Advantage ID and password can download the necessary product repositories from the Passport Advantage site.
- Access the live repositories, and use web-based installation: If you have a Passport Advantage ID and password, you can use Installation Manager to install the product directly from IBM hosted repositories.

Getting started with Installation Manager

Installing, updating, or uninstalling the product can be performed by using IBM Installation Manager in wizard, console, or silent mode. However, you must configure an IBM Installation Manager repository or Passport Advantage preferences before performing these tasks.

For complete information about Installation Manager, see the IBM Installation Manager documentation.

Wizard mode

In wizard mode, you run Installation Manager from a graphical user interface.

Most of the time, you start Installation Manager with the default shortcuts that are installed with your version of Installation Manager.

From the installation location of Installation Manager, you can run the IBMIM application file to start in wizard mode manually.

The default IBMIM location for the operating system varies depending on the installation type (administrator, nonadministrator, or group).

Table 1. Default installation locations for IBMIM

Operating system	Administrator	Nonadministrator	Group
Windows 2008 and Windows 2012	C:\Program Files [(x86)]\IBM\Installation Manager\eclipse	C:\Users\user\IBM\Installation Manager\eclipse	
Linux and UNIX	/opt/IBM/InstallationManager/eclipse	/user_home_directory/IBM/InstallationManager/eclipse	/user_home_directory/IBM/InstallationManager_Group/eclipse

Console mode

Use console mode when you do not have a graphics display device available or when you want to run Installation Manager without the graphical user interface. Installation Manager supports installing in an ASCII text-based mode that is called the console mode. Console mode is interactive text-based user interface to Installation Manager. For example, use console mode for server-side deployments when no graphical user interface is present, or for running the installation from a remote host.

To start console mode:

1. Open a command line.
2. Go to the `tools` subdirectory.
3. Run the command that is appropriate for the operating system:
 - Windows: `imcl.exe -c`
 - Linux, UNIX: `./imcl -c`

The default `tools` location varies depending on the operating system and installation type (administrator, nonadministrator, or group). For more information, see the Installation Manager documentation.

Table 2. Default installation locations for the tools subdirectory

Operating system	Administrator	Nonadministrator	Group
Windows 2008 and Windows 2012	C:\Program Files [(x86)]\IBM\Installation Manager\eclipse\tools	C:\Users\user\IBM\Installation Manager\eclipse\tools	

Table 2. Default installation locations for the *tools* subdirectory (continued)

Operating system	Administrator	Nonadministrator	Group
Linux and UNIX	/opt/IBM/ InstallationManager/ eclipse/tools	/user_home_directory/IBM/ InstallationManager/ eclipse/tools	/user_home_directory/IBM/ InstallationManager_Group/ eclipse/tools

Silent mode

Use silent installations to deploy software to multiple systems, or to an enterprise. Silent installations are defined by a response file and started from the command line or a batch file. The response file is provided with the product distribution. For more information, see “Installing silently by using a response file” on page 9.

Repository preferences

An IBM Installation Manager repository is a location that stores data for installing, modifying, rolling back, or updating packages.

Before you install, modify, or update packages, obtain the installation repository location from your administrator or from IBM.

Note: To successfully access an installation repository, the repository location path must not contain an ampersand (&).

The following topics provide instructions for setting repository preferences in wizard and console mode.

Setting repository preferences in wizard mode

You can add, edit, or remove repositories and modify the repository order in the repository table using wizard mode.

About this task

You can clear credentials for a repository or test a connection to a repository. You might find both a `diskTag.inf` file and a `repository.config` file in the IBM product installation files. Use the `diskTag.inf` file when you select a repository location.

Procedure

To add, edit, or remove a repository location:

1. Start Installation Manager in wizard mode by using IBMIM. For more information, see “Getting started with Installation Manager” on page 2.
2. Click **File > Preferences > Repositories**. The Repositories page opens and shows available repositories, repository locations, and the connection status for the repositories.
3. Click **Add Repository**.
4. Enter the repository location or click **Browse**. When you browse, go to the repository location and select the `diskTag.inf` file, the `repository.config` file, the `.zip` file, or the `.jar` file as appropriate for your environment.
5. Click **OK**.

If you provided an HTTPS or restricted FTP repository location, you are prompted to enter a user ID and password. The new repository location is added to the list. If the repository is not connected, a red box shows in the **Connection** column.

6. Optional: Select **Search service repositories during installation and updates**. Installation Manager searches the service repositories at IBM.com for updates to installed packages.

7. Click **OK** to close the Preference page.

Setting repository preferences in console mode

You can use console mode to add, remove, open, move, or close repositories.

About this task

A selected option is indicated by an X in brackets: [X]. Options that are not selected are indicated by empty brackets: []. You can press **Enter** to select the default entry or select a different command. For example, [N] indicates that the default selection is N for the **Next** command.

Procedure

To add a repository:

1. Start Installation Manager in console mode by using `imcl -c`. For more information, see “Getting started with Installation Manager” on page 2.
2. Enter P: Preferences.
3. Enter 1: Repositories.
4. Enter D: Add repository.
5. Enter a repository location such as `C:\installation_files\repository.config`. If you add a repository that requires credentials, you are prompted to provide the required credentials.
Use the correct case when you enter the repository location. If the correct case is not used, the package is not shown in the list of available packages for installation.
 - a. Enter P: Provide credentials and connect.
 - b. Enter the *user_name* and press **Enter**.
 - c. Enter the *password* and press **Enter**.
 - d. Enter 1 to save the password.
 - e. Enter 0: Ok.
6. Enter A: Apply Changes and Return to Preferences Menu.
7. Enter R: Return to Main Menu.

Passport Advantage preferences

IBM Installation Manager can access installation packages from Passport Advantage®. Passport Advantage is a centralized online location for the acquisition of IBM software offerings.

Before you install, modify, or update packages, obtain valid Passport Advantage credentials.

The following topics provide instructions for setting Passport Advantage preferences in wizard and console mode.

Setting Passport Advantage preferences in wizard mode

You can set the Installation Manager Passport Advantage preferences to connect to Passport Advantage using wizard mode.

About this task

Important: If you share an instance of Installation Manager with other users, see the Installation Manager documentation for information on installing as an administrator, nonadministrator, or group.

Procedure

To set Passport Advantage preferences:

1. Start Installation Manager in wizard mode by using IBMIM. For more information, see “Getting started with Installation Manager” on page 2.
2. Click **File > Preferences > Passport Advantage**.
3. Select the **Connect to Passport Advantage** check box to connect to the Passport Advantage repository. The Password Required window opens.
4. Enter a user name and password for Passport Advantage.
5. Optional: Select **Save password** to save the user name and password credentials.
If you do not save the user name and password credentials, you are prompted for these credentials each time you access Passport Advantage.
6. Click **OK** to close the Password Required window.
7. Click **OK** to close the Preferences window.

What to do next

To delete saved user name and password credentials:

1. Click **File > Preferences > Passport Advantage**.
2. Click **Clear Credentials**.
3. Click **OK** in the Confirm Clear Credentials window.

Setting Passport Advantage preferences in console mode

You can set the Installation Manager Passport Advantage preference to connect to Passport Advantage in console mode.

Procedure

1. Start Installation Manager in console mode by using `imcl -c`. For more information, see “Getting started with Installation Manager” on page 2.
2. Enter **P**: Preferences.
3. Enter **6**: Passport Advantage.
4. Enter **1**: Connect to Passport Advantage. A selected option is indicated by an X in brackets: `[X]`.
5. Enter **P**: Provide credentials and connect.
6. Enter the user name for the Passport Advantage account.
7. Enter the password.
If you do not save the user name and password credentials, you are prompted for these credentials each time you access Passport Advantage.
 - a. Optional: If you entered a password, enter **1**: Save password if valid.
8. Enter **O**: OK to save the credentials.

Installing IBM SPSS Modeler Adapter

You can install IBM SPSS Modeler Adapter in wizard, console, or silent mode.

You must shut down the IBM SPSS Collaboration and Deployment Services server before starting the installation, and ensure that the application server is in the following state:

- **IBM WebSphere standalone:** Server must be stopped.
- **IBM WebSphere managed:** Managed server must be stopped, Deployment Manager server must be running.
- **IBM WebSphere cluster:** Cluster members must be stopped, Deployment Manager server must be running.
- **JBoss:** Server must be stopped.
- **Oracle WebLogic standalone:** Server must be stopped.

- **Oracle WebLogic managed:** Managed server must be stopped, WebLogic administration server must be running.
- **Oracle WebLogic cluster:** Cluster members must be stopped, WebLogic administration server must be running.

Installing in wizard mode

You can install IBM SPSS Modeler Adapter by using IBM Installation Manager in wizard mode.

Before you begin

Before you can install, IBM Installation Manager must have access to the repository that contains the package. You must also shut down the application server and the IBM SPSS Collaboration and Deployment Services server before starting the installation.

- If you have an IBM Passport Advantage account, you can install packages from the Passport Advantage site. For more information about connecting to a Passport Advantage repository, see “Setting Passport Advantage preferences in wizard mode” on page 4.
- If you are installing from a repository that is not on the Passport Advantage site, you must specify the repository in the preferences before you install. For more information, see “Setting repository preferences in wizard mode” on page 3.

Procedure

To install IBM SPSS Modeler Adapter:

1. Start Installation Manager in wizard mode by using IBMIM. For more information, see “Getting started with Installation Manager” on page 2.
2. In Installation Manager, click **Install**. Installation Manager searches the defined repositories for available packages. If no available packages are found, verify that you specified the repository correctly. See “Setting repository preferences in wizard mode” on page 3.
3. If a new version of Installation Manager is found, you might be prompted to confirm the installation. Click **Yes** to proceed. Installation Manager automatically installs the new version, restarts, and resumes.
4. The Install page of Installation Manager lists all the packages that were found in the repositories that Installation Manager searched. Only the most recent version of the package is shown. To show all versions of a package that Installation Manager finds, select **Show all versions**. Click a package version to show the package description in the **Details** pane. If more information about the package is available, a **More info** link is included at the end of the description text.

If you are running Installation Manager in group mode, you can install only packages that are enabled for installing in group mode. If the package is not enabled for installing in group mode, you receive an error and cannot continue with the package installation in group mode.

5. Select the IBM SPSS Modeler Adapter package. Click **Next**.
6. On the Licenses page, read the license agreements for the selected package. After you accept the license agreement, click **Next** to continue.
7. On the Location page, enter the path for the shared resources directory in the **Shared Resources Directory** field. The shared resources directory contains resources that can be shared by multiple package groups. Click **Next**.

Important: You can specify the shared resources directory only the first time that you install a package. Select the drive with enough available space to ensure adequate space for the shared resources of future packages. You cannot change the location of the shared resources directory unless you uninstall all packages.

8. On the Location page, either choose a package group into which to install the packages or create a package group. A package group is a directory that contains resources that packages share with

other packages in the same group. The first time that you install a package, you must create a package group. If you select more than one package to install, verify that the packages can be installed in the same package group by checking the documentation for the packages. For packages that cannot be installed in the same package group, install one package in one package group. After the installation completes, install the second package in a different package group.

Option	Description
Use the existing package group	Select a package group into which to install the packages. If the packages being installed are not compatible with the selected group, an alert reports the conflict. If a group is not compatible, either select a different group or create a new group.
Create a new package group	Click Browse to specify the installation directory for the packages. If you are installing on a 64-bit operating system, select the architecture for the installation as either 32-bit or 64-bit.

Click **Next** to continue the installation.

9. On the next Location page, select the translations to install for packages in the package group. The corresponding language translations for the graphical user interface and documentation are installed. Choices apply to all packages that are installed in this package group. This option may not apply to all product installations. Click **Next** to continue.
10. On the Features page, select the package features to install.
 - a. Optional: To see the dependency relationships between features, select **Show Dependencies**.
 - b. Optional: Click a feature to view its brief description under **Details**.
 - c. Select or clear features in the packages. Installation Manager automatically enforces dependencies with other features and shows updated download size and disk space requirements for the installation. To restore the default features that are selected for the packages, click **Restore Default**.
11. When you are finished selecting features, click **Next**.
12. On the Summary page, review your choices before you install the packages.
On Windows, Installation Manager checks for running processes. If processes are blocking the installation, a list of these processes is shown in the Blocking Processes section. You must stop these processes before you continue the installation. Click **Stop All Blocking Processes**. If there are no processes that must be stopped, you do not see this list. The running processes lock files that must be accessed or modified by Installation Manager.
13. Click **Install**. When the installation process completes, you receive a confirmation message.

Installing in console mode

You can install IBM SPSS Modeler Adapter by using IBM Installation Manager in console mode.

Before you begin

Before you can install, Installation Manager must have access to the repository that contains the package. You must also shut down the application server and the IBM SPSS Collaboration and Deployment Services server before starting the installation.

- If you have an IBM Passport Advantage account, you can install packages from the Passport Advantage site. For more information about connecting to a Passport Advantage repository, see “Setting Passport Advantage preferences in console mode” on page 5.
- If you are installing from a repository that is not on the Passport Advantage site, you must specify the repository in the preferences before you install. For more information, see “Setting repository preferences in console mode” on page 4.

Procedure

To install in console mode:

1. Start Installation Manager in console mode by using `imcl -c`.
The default `imcl` location varies depending on the operating system and installation type (administrator, nonadministrator, or group). For more information, see “Getting started with Installation Manager” on page 2.
2. Enter 1: Install - Install software packages. Packages that can be installed are listed.
If you have repositories that require credentials and you did not save the credentials, you are prompted to provide these credentials
3. Enter 1: [] *package_name*. To select a package, enter the number that is next to the package. This example selects the first package listed. If the selected package requires a later version of Installation Manager, you are prompted to install the later version.
4. On the Select screen, enter the number that is next to the package that you want to install.
 - 1: Choose version *package_version* for installation. This option shows when you chose a package that is not selected for installation.
The 1: Do NOT install version *package_version* option shows when you chose a package that is selected for installation.
 - 2: Show all available versions of the package.
5. Optional: Enter 0: Check for Other Versions, Fixes, and Extensions. Installation Manager searches available repositories for other versions, fixes, or extensions of the selected package.
 - For Installation Manager to search the default repository for the installed packages, the **Search service repositories during installation and updates** preference must be selected. This preference is selected by default. To access this preference, go to the Repositories preference page.
 - Typically, Internet access is required.
 - The **Check for Other Versions, Fixes, and Extensions** option indicates the number of other versions, fixes, or extensions found but does not list the found items. To see available versions, enter the number that is next to the package then enter 2: Show all available versions of the package.
6. Enter N: Next
7. Options for the Licenses screen:
 - 1: *product_name* - License Agreement. To view a license agreement, enter the number that is next to the product name. This example selects the first license agreement listed.
 - A: [] I accept the terms in the license agreement.
 - D: [] I do not accept the terms in the license agreement. If you decline the license agreement, the installation is stopped. To continue the installation, you must accept the license agreement.
 - a. Enter A to accept the license agreement.
 - b. Enter N: Next.
8. To enter a different value for the shared resources directory, enter M: Shared Resources Directory. To accept the default value for shared resources directory or to continue after you enter a different value, enter N: Next.

Important: You can specify the shared resources directory only the first time that you install a package. Select the drive with enough available space to ensure adequate space for the shared resources of future packages. You cannot change the location of the shared resources directory unless you uninstall all packages.

9. Optional: To enter a different value for the package group location, enter M: Change Location. To accept the default values or to continue after you enter a different value, enter N: Next.

A package group is a directory that contains resources that packages share with other packages in the same group. The first time that you install a package, you must create a package group. If you

select more than one package to install, verify that the packages can be installed in the same package group by checking the documentation for the packages. For packages that cannot be installed in the same package group, install one package in one package group. After the installation completes, install the second package in a different package group.

10. Enter the number that is next to the language to add or remove the language from the list of languages that are installed. You can select only one language at a time. Enter N: Next. English is selected by default. You cannot clear the selection for the English language. Your language choices apply to all packages that are installed in the package group.
11. Enter the number that is next to the feature to add or remove the feature from the list of features that are installed. Enter N: Next. This screen is not shown when your product does not have any features.
12. On the Summary screen, review your selections before you install the package.
Optional: To generate a response file, enter G: Generate an installation response file. Enter the name of the response file and use .xml as the file extension. Response files are XML files. You can include a directory location when you enter the response file name to save the file to a different location.
13. Enter I: Install.
14. When the installation completes, enter F: Finish.

Installing silently by using a response file

You can use a response file to install in silent mode.

Before you begin

Locate the SilentInstallOptions response file provided in the installation package. You must also shut down the application server and the IBM SPSS Collaboration and Deployment Services server before starting the installation.

Procedure

To install a package in silent mode:

Run the **imcl** command:

- Windows: `imcl.exe input response_file -log log_file`
- Linux and UNIX: `./imcl input response_file -log log_file`

The default **imcl** location will vary depending on the operating system and installation type (administrator, nonadministrator, or group). For more information, see “Getting started with Installation Manager” on page 2.

Results

When the installation is complete, a status of 0 is returned. If the installation cannot be completed, a non-zero number is returned.

A log file is available. For more information, see the Installation Manager documentation.

Example

Table 3. Install commands by operating system

Operating system	Command
Windows	<code>imcl.exe input c:\response_files\install.xml -log c:\mylog\install_log.xml -acceptLicense</code>

Table 3. Install commands by operating system (continued)

Operating system	Command
Linux, UNIX	<pre>./imcl input /response_files/install.xml -log /mylog/install_log.xml -acceptLicense</pre>

Enclose file paths that include spaces with double quotation marks.

Configuring the adapter for IBM SPSS Collaboration and Deployment Services Web services on Linux

When running IBM SPSS Collaboration and Deployment Services Web service automations relating to SPSS Modeler on Linux, you may see the error:

```
java.io.IOException: Too many open files
```

If this occurs, increase the maximum number of open files on the Linux server by entering the command:
`ulimit -n value`

where *value* is the number of files that can be open. This value should be as high as possible, and depends on the amount of nodes in stream files. Default is 1024; a suggested value is 100000.

Configuring the adapter for SPSS Statistics

If you want to use the IBM SPSS Collaboration and Deployment Services scoring service to score an SPSS Modeler stream containing SPSS Statistics integration nodes (Statistics Transform, Statistics Model, and Statistics Output), perform the following procedure after installing the adapter.

1. On the repository host, navigate to the `/components/modeler/bin` folder.
2. Use the `statisticsutility` tool to configure the adapter to work with the SPSS Statistics server. For more information, see the section on IBM SPSS Statistics helper applications in the *IBM SPSS Modeler Source, Process and Output Nodes* guide.

Troubleshooting

IBM Installation Manager version

IBM Installation Manager version **1.6.2** is required for the installation.

Free disk space

The installation will fail if you don't have sufficient free disk space. A minimum of 10 GB is recommended.

Installation failure

IBM Installation Manager may report that installation is successful, even though the adapter is not functioning correctly. The installation consists of an *installation* process and a *configuration* process. In some cases, the installation process may succeed but configuration process may fail. Verify that the entire installation is successful before continuing.



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