Working with Software AG Designer

Version 9.7

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This document applies to Software AG Designer Version 9.7 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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About These Guides

Software AG Designer enables you to create and maintain a wide number of applications, services, tasks, and other components to implement and execute your solutions in the webMethods product suite. When you install a Designer feature, the online help for that feature appears in the Designer Guides node of the Eclipse Help table of contents. Expand this node to view the available help sets.

If a feature is not installed, there will be no help set available for it. However, you can view PDF versions of all Designer features on the Software AG Documentation website.

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Narrowfont	Identifies storage locations for services on webMethods Integration Server, using the convention *folder.subfolder:service* .
UPPERCASE	Identifies keyboard keys. Keys you must press simultaneously are joined with a plus sign (+).
Italic	Identifies variables for which you must supply values specific to your own situation or environment. Identifies new terms the first time they occur in the text.
`Monospace font`	Identifies text you must type or messages displayed by the system.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
|	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the | symbol.
[ ]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [ ] symbols.

Convention	Description
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Documentation Installation

You can download the product documentation using the Software AG Installer. The documentation is downloaded to a central directory named _documentation in the main installation directory (SoftwareAG by default).

Online Information

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at http://documentation.softwareag.com. The site requires Empower credentials. If you do not have Empower credentials, you must use the TECHcommunity website.

Software AG Empower Product Support Website

You can find product information on the Software AG Empower Product Support website at https://empower.softwareag.com.

To submit feature/enhancement requests, get information about product availability, and download products and certified samples, go to Products.

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the Knowledge Center

Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at http://techcommunity.softwareag.com. You can:

- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

1 Tips for Working with Software AG Designer

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Implementing a Multi-User Eclipse Configuration

The default installation of Software AG Designer is configured to support a single user. You can modify the Eclipse installation to support a multi-user environment.

There are three different locations in the Eclipse installation that are important in the context of deploying Eclipse in a multi-user setup:

- The *install area* (the location where the Eclipse Platform is installed).
- The *configuration area* (the location where Eclipse stores essential runtime metadata and cached data in general).
- The *instance area* (also known as the workspace).

You can choose to create a multi-user setup where each user has his own configuration, or where all users share a common configuration.

For detailed information about implementing a multi-user setup, refer to the Eclipse documentation at:

http://help.eclipse.org/kepler/topic/org.eclipse.platform.doc.isv/reference/misc/runtime-options.html

Configuring Eclipse for Non-Administrator Accounts

This information applies primarily to Software AG Designer/Eclipse installed in a Windows environment.

Typically, Software AG Designer is installed by a system administrator, and can be started by a user account with administrator rights. However, for security reasons, many organizations prohibit the everyday operation of applications with an administrator-enabled user account.

Starting Designer/Eclipse with a non-administrator account can cause problems when the software was installed by an administrator account. The most significant issues are:

- Lack of permission to write to specific directories in the Eclipse installation.
- Potential for increasing the size of the user home directory. In cases where a size limitation is placed on this directory, this may cause Designer/Eclipse to stop running.

During installation, Designer/Eclipse creates a writable configuration directory within the Eclipse installation, for example:

```
C:\SoftwareAG\Designer\eclipse\configuration
```

Each time Designer/Eclipse starts, it verifies that the configuration directory is writable. If it is not writeable, by default, Designer/Eclipse creates a private configuration folder in the user home directory. Depending on the features installed, the size of the

configuration area varies. If the operating system enforces a limit on the size of the user home directory, it is possible for the Designer/Eclipse configuration data to exceed that limit, which causes Designer/Eclipse to stop running.

To avoid this situation, it is possible to start Designer/Eclipse with a command line option that redefines the location of the user home directory. The default location for a private configuration area is:

`<user-home-dir>/.eclipse/<product-id>_<product-version>/configuration`

The user home directory is determined by the user.home Java system property. The product id and version are obtained from the product marker file .eclipseproduct under the Eclipse install.

A non-default configuration area can be defined by setting the osgi.configuration.area system property. This property can be set by the end user, but it is more convenient to set it either in the launcher.ini file or in the config.ini file at the base configuration location.

For detailed information about the Eclipse configuration directory and runtime options, refer to the Eclipse documentation at:

- http://help.eclipse.org/kepler/topic/org.eclipse.platform.doc.isv/reference/misc/multi_user_installs.html
- http://help.eclipse.org/kepler/topic/org.eclipse.platform.doc.isv/reference/misc/runtime-options.html

Considerations when Starting Designer on Windows

After installing Software AG Designer in a Windows environment, you may find that attempts to start Designer from a shortcut or from the command line result in an "access denied" error. This situation can occur if you are logged in as a non-administrator user.

To resolve this issue, ensure that the user account has write access to the files in the *Software AG_directory* installation directory.

In addition, when starting Designer from a shortcut you can right-click the shortcut and select **Run as administrator**.

Changing the JRE or JDK Used by Designer

By default, Software AG Designer uses the JDK that the Software AG Installer installs as described in the PDF publication *Installing webMethods and Intelligent Business Operations Products*. You can modify the Designer configuration to use a different JRE or JDK. If you want to switch back to the JDK installed by the Software AG Installer, it is located in the *Software AG_directory*\jvm directory.

Important: If you switch to a non-default JRE or JDK, apply maintenance updates from the appropriate vendor on a regular basis, as you would for any JREs and JDKs you install yourself.

Note: Software AG tests products only with the JDKs installed by the Software AG Installer. If you change to a different JDK or JRE and encounter problems, Software AG may require you to reproduce the issues with the JDK that is installed by the Software AG Installer.

To change the Designer JRE or JDK

1. Locate the following file in your Designer installation:

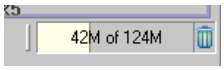
   Software AG_directory\Designer\eclipse\eclipse.ini

2. Open the file in a text editor.
3. Locate the `-vm` parameter and modify it to contain the directory path to the JRE or JDK you want to use.
4. Save the file and restart Designer.

Monitoring and Modifying Memory Usage

As you work with Software AG Designer, background processes are constantly writing to system memory. Some processes can consume a considerable amount of memory while they are running. This can cause Designer to slow down or become unresponsive if its memory requirements approach or exceed the configured maximum.

Eclipse provides a heap status monitor function, and by default, this feature is enabled in Designer. The monitor appears in the status bar at the lower right of Designer:



The display shows the amount of memory in use and the total amount available. If the display frequently shows values near the configured maximum, consider increasing the maximum. For more information, see "Adjusting the Designer Memory Settings" on page 11.

If the display has been disabled, you can re-enable it by clicking **Window > Preferences**, selecting the General entry, and selecting the **Show heap status** option.

For more information about memory allocation in Eclipse, see the topic "Running Eclipse" in the *Workbench User Guide* online help (**Workbench User Guide > Tasks > Running Eclipse**).

Adjusting the Designer Memory Settings

To adjust the Designer memory settings

1. Locate the following file in your Designer installation:

   Software AG_directory\Designer\eclipse\eclipse.ini
2. Open the file in a text editor.
3. Locate the `-Xmx` parameter and modify it as required:
   - For systems with 1 GB or less of memory, set `-Xmx=512m`
   - For systems with more than 1 GB of memory, set `-Xmx=1024m`

   Note: If you experience errors such as "OutOfMemoryError: PermGen Space" with Oracle JVMs, it may help to increase the value of the launcher.XXMaxPermSize option in the eclipse.ini file and/or in the Run/Debug configuration in Designer.
4. Ensure that the value for `-Xms` is less than the value for `-Xmx`.
5. Save the file and restart Designer.

Finding Installed Products, Versions, and Fixes

You can find the following information about the Software AG products installed with Software AG Designer:

- Which products are installed
- The version and fix level of a product

You can also view and copy information about the Software AG features installed including feature name, version, and ID.

For more information, see the following topics:

- "Identifying Installed Products, Versions, and Fixes" on page 11
- "Viewing and Copying Information About Software AG Features" on page 12

For technical details about Eclipse features, see the Features topic in the *Workbench User Guide* online help (**Workbench User Guide > Concepts > Features**).

Identifying Installed Products, Versions, and Fixes

You use the About Software AG Designer dialog box to find information about installed Software AG products, versions, and fixes.

In addition, the Welcome page provides a short description of each installed product as well as links to the Eclipse perspective associated with the product and the product

documentation. The Welcome page opens the first time you start Designer. To view the Welcome page if it is closed, click **Help > Welcome**.

To find information about installed products, their versions, and applied fixes:

1. In Designer: **Help > About Software AG Designer**.
2. The **Software AG** tab displays all installed Software AG products, their versions, and the latest fix levels, if a fix has been applied.
3. To view details about the Eclipse features and plug-ins associated with a product, click the product icon.

Viewing and Copying Information About Software AG Features

To view and copy information about the features provided by Software AG:

1. In Designer, click either of the following:
   - **Window > Preferences > Software AG**
   - **Help > About Software AG Designer > Software AG Preferences**

   The Installed Software AG Features table displays all installed features, their versions, and IDs.
2. Select the feature or features you want to copy. Right-click the features and click **Copy**.

Using Designer with Software AG Runtime

You can install an instance of Software AG Runtime in your Software AG product directory with the Software AG Installer. This provides you with a convenient and integrated web server for testing the web projects you develop in Designer.

You can manage the Software AG Runtime instance using the Designer Servers view. In this view, you can connect to an existing Software AG Runtime instance, check the server status, start it, stop it, and publish your projects to it.

You can determine the version of the installed Software AG Runtime by referring to the PDF publication *webMethods and Intelligent Business Operations System Requirements* for your version of Designer. This section explains how to add the Software AG Runtime instance and how to display it in the Designer Servers view.

Defining a Software AG RuntimeEntry in the Servers View

You can define a Software AG Runtime entry in the Servers view. When you select Software AG Runtime in the Servers view, the toolbar buttons and menu commands for starting, debugging, and stopping the server are enabled. For more information about starting, debugging, and stopping Software AG Runtime, see the PDF publication *Working with Software AG Runtime*.

Note: With Software AG Runtime, you can deploy only web projects that contain servlets or JSPs.

Before you begin, make sure that you have installed Software AG Runtime and Software AG Platform Manager using the Software AG Installer.

To define a Software AG Runtimeinstance

1. In the Servers view, right-click and click **New > Server**.
2. In the **Select the server type** list, expand the **Software AG** folder, and select **Software AG Runtime**.
3. Accept the default value of `localhost` for **Server's host name** and specify a name for the server in the **Server name** box.
4. Click **Next**.
5. Specify the *Software AG_directory* installation directory or type the URL for the Platform Manager to select an installed instance of Software AG Runtime. Do one of the following:
   - In the **Installation Directory** box, type or browse to the *Software AG_directory*, for example, C:\SoftwareAG.
   - In the **Platform Manager URL** box, type the URL of the Platform Manager.
6. Enter your user name and password to connect to the Platform Manager. Click **List Servers**.
7. In the **Servers** list, select one of the listed instances of Software AG Runtime.
8. Click **Finish**.

Adding the Software AG RuntimeEnvironment

Using the **Preferences** page, you can add Software AG Runtime environment definitions.

Before you begin, make sure that you have installed Software AG Runtime and Software AG Platform Manager. If Software AG Runtime is not installed, you will not have it as an entry in the **Servers** list as described later. Use the Software AG Installer to install the server in your Software AG installation.

To add a Software AG Runtimeenvironment

1. In Designer, click **Window > Preferences**.
2. In the **Preferences** window, expand the **Server** node and select **Runtime Environments**.
3. Click **Add**.
4. In the **Select the type of runtime environment** list, expand the **Software AG** folder, select **Software AG Runtime** and click **Next**.
5. Specify the *Software AG_directory* installation directory or type the URL for the Platform Manager to select an installed instance of Software AG Runtime. Do one of the following:

- In the **Installation Directory** box, type or browse to the *Software AG_directory*, for example, C:\SoftwareAG.
- In the **Platform Manager URL** box, type the URL of the Platform Manager.

6. Enter your user name and password to connect to the Platform Manager. Click **List Servers**.
7. In the **Servers** list, select one of the listed instances of Software AG Runtime.
8. Click **Finish**.

Enabling Designer Console Output on Windows

At times, users of Software AG Designer might want to view Designer output messages in a Windows Command Prompt session. This mechanism is disabled by default. If you want to use a Windows Command Prompt session to monitor Designer activity and error messages, you can implement any of the following solutions:

- Modify the Designer configuration. This will enable output to a Command Prompt session whenever you start Designer.
- Start Designer from the command line with extra parameters. In this case, output is enabled only during the current session.
- Modify a Designer shortcut. This will enable output only during the session you start from the shortcut.

For additional information about configuring the Designer startup, refer to the Eclipse documentation at:

http://help.eclipse.org/kepler/topic/org.eclipse.platform.doc.isv/reference/misc/runtime-options.html

Modifying the Designer Configuration to Enable Console Output

You can modify the Designer configuration to enable output of Designer activity and error messages to a Command Prompt session on Windows. After you modify the Designer configuration, the Designer output will be available every time you start Designer.

To modify the Designer configuration to enable console output

1. Locate the following file in your Designer installation:

   Software AG_directory\Designer\eclipse\eclipse.ini.
2. Open the file in a text editor.
3. Locate the `-vm` parameter and do the following:
   a. Type `-consoleLog` in a new line above the `-vm` parameter.
   b. Replace `javaw.exe` with `java.exe` at the end of the `-vm` parameter definition.

4. Save the file and start Designer.

Adding Parameters to the Command Line to Enable Designer Console Output

You can add parameters when starting Designer from the command line to enable output of Designer activity and error messages to a Command Prompt session on Windows. In this case, output is enabled only during the current session.

To enable console output when starting Designer from a Command Prompt window

1. Open a Command Prompt window in this directory:

   Software AG_directory\Designer\eclipse

2. Type the following command to start Designer with the console output enabled:

   ```
   eclipse -consoleLog -vm <path to java.exe>
   ```

Modifying a Designer Shortcut to Enable Console Output

You can add parameters to a Windows shortcut to enable output of Designer activity and error messages to a Command Prompt session on Windows when you start Designer from the shortcut. In this case, output is enabled only during the session started from the modified shortcut.

To modify a Designer shortcut to enable console output

1. Locate the Designer shortcut you want to modify, for example:

   Start > All Programs > *Software AG_directory* > Tools > Software AG Designer 9.7

2. Copy the shortcut and paste the copied shortcut onto your desktop.
3. Right-click the copied shortcut and click **Properties > Shortcut**.
4. In the **Target** field, add the following parameters to the end of the Target definition:

   ```
   -consoleLog -vm <path to java.exe>
   ```

5. Click **OK** to save the new Target definition.
6. Rename the copied shortcut as desired.

Configuring SSL Connections in Designer

Use the following procedure to configure a Secure Sockets Layer (SSL) connection in Software AG Designer.

For more information about Java SSL configurations, see the JSSE Reference Guide in the Java SE documentation.

To configure an SSL connection

1. Locate the following file in your Designer installation:

   Software AG_directory\Designer\eclipse\configuration\config.ini

2. Open the file in a text editor.
3. Add the following lines to the file:

   - javax.net.ssl.trustStore=*truststore file path*

     where *truststore file path* is the path to the server truststore in your file system. For example:

     ```
     javax.net.ssl.trustStore=C\:\\keystore\\localhost.jks
     ```

     Note: Be sure to use the correct separators when specifying the path to the truststore file. For example: `C\:\\`

   - javax.net.ssl.trustStoreType=*truststore file type*

     where *truststore file type* is the type of truststore file that the server supports. For example:

     ```
     javax.net.ssl.trustStoreType=JKS
     ```

4. Save the file and restart Designer.

2 Software AGTraining Resources

You might choose to benefit from Software AG training before you use Software AG products, although training is not a prerequisite. Software AG training provides extensive coverage of Software AG Designer functionality, with hands-on sessions and numerous exercises delivered by experienced Software AG instructors.

For more information about available training courses and to schedule training for your organization, visit the Software AG Training page at http://www.softwareag.com/corporate/service/ges/default.asp.

3 Software AG Information Resources

The _documentation directory of your Software AG installation provides an extensive repository of product-related information. For example, if you are interested in an overview of the webMethods product suite or business process management, you may want to examine the PDF publication *Understanding webMethods and Intelligent Business Operations Products*. Documentation for NaturalONE and Adabas is also available.

The _documentation directory is installed as a separate component in the Software AGInstaller. If the _documentation directory is not installed on your system, then you can install the directory by using the Installer.

You can also download documentation from the following locations:

- Software AG Documentation website at http://documentation.softwareag.com. The site requires an Empower login. If you do not have an Empower login, you must use the TECHcommunity website.
- Software AG TECHcommunity website at http://techcommunity.softwareag.com. The site requires a TECHcommunity login. If you do not have a TECHcommunity login, register and specify "Documentation" as an area of interest.

Additionally, you might find the Software AG publication, *BPM Basics for Dummies*, of particular interest. This book addresses the business management and information technology sides of BPM, and delves into the process-centric foundation upon which BPM is built. You can download the entire book at no cost from: http://www.softwareag.com/Corporate/res/books/bpm_for_dummies/default.asp.

A number of other Software AG publications covering topics such as process intelligence and Service Oriented Architecture (SOA) are available at no cost in a variety of languages at: http://www.softwareag.com/corporate/res/books/default.asp.