

Using the Oracle® Java CAPS 6.3 Installation GUI

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Using the Java CAPS 6.3 Installation GUI

This topic provides information and instructions for installing the Java Composite Application Platform Suite (Java CAPS) using a graphical user interface (GUI).

Before beginning the installation, be sure you are familiar with the information in *Planning for Java CAPS Installation*. It provides important information about installation requirements.

What You Need to Know

- “Overview of Installation” on page 6

What You Need to Do

- “Installing the JDK Software and Setting JAVA_HOME” on page 7
- “Installing Java CAPS Using the Java CAPS Installer” on page 8
- “Enabling Oracle Advanced Queueing” on page 16
- “Enabling WebLogic JMS for Java CAPS” on page 17
- “Adding the GlassFish Server to the NetBeans IDE” on page 18
- “Installing Components Using the NetBeans IDE Update Center” on page 19
- “Installing Java CAPS Components Using the Java CAPS Uploader” on page 21
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- “Creating a Windows Service for the GlassFish Domain” on page 27
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Overview of Installation

Before beginning the installation, read *Planning for Java CAPS Installation*, which contains information such as supported platforms, operating system limitations, parameter definitions, and the like. This information is necessary for you to complete a successful installation of Java CAPS.

Complete Graphical User Interface Installation

For a complete list of software installed, see “[Overview of the Installation Process](#)” in *Planning for Oracle Java CAPS 6.3 Installation*.

Note – Certain adapters require additional installation procedures. For details, see *Installing Third-Party JAR Files*.

The GUI installation is divided into four installation segments:

- The Java CAPS Installer installs the GlassFish Enterprise Server, NetBeans IDE (which installs Java CAPS plugins), a subset of Java CAPS core products and Adapters, Java CAPS Repository, Enterprise Manager, JMS IQ Manager, and the UDDI Server.
- The CAPS Repository Update Center in NetBeans IDE downloads modules from the Java CAPS Repository.

Note – If you install NetBeans IDE during the initial installation, you do not need to download modules yourself until updates become available or until you install additional Repository-based components.

- After the above automated steps, you can use the Java CAPS Uploader (formerly known as the Suite Installer) to upload additional Java CAPS Repository-based components. These components include all SAR files that were not installed using the Java CAPS Installer. The Uploader also enables you to download and extract ZIP files. After uploading the components, you need to install them in NetBeans using the Update Center.
- You can use the Java CAPS Enterprise Manager Web Applications Manager to install Java CAPS component plugins. These plugins are listed under the Downloads tab in the Java CAPS Uploader, and include adapter plugins, as well as plugins for other product components, such as the Web Services, Composite Page Designer, and Business Process Manager.

You do not have to install all of the software and components at the same time. You can install additional Java CAPS products and components at any time after completing the initial installation using the NetBeans IDE Update Center and Java CAPS Uploader and selecting the items from a list.

The process also installs the uninstallation software.

Note – You must have the JDK (Java Development Kit) software installed and JAVA_HOME set prior to installing Java CAPS or the Installer will halt the installation. See “[Installing the JDK Software and Setting JAVA_HOME](#)” on page 7 for details.

Installing the JDK Software and Setting JAVA_HOME

If you do not already have the JDK software installed or if the JAVA_HOME environment variable is not set, the Java CAPS installation will not be successful. The following tasks provide the information you need to install the JDK software and set JAVA_HOME on UNIX or Windows systems.

For a list of supported JDK versions for each operating system, see “[Java CAPS 6.3 Supported JDK Versions](#)” in *Planning for Oracle Java CAPS 6.3 Installation*. For instructions on installing JDK on a 64-bit Solaris platform, see <http://www.oracle.com/technetwork/java/javase/install-solaris-64-138849.html>.

▼ To Install the JDK Software and Set JAVA_HOME on a UNIX System

1 Install the JDK software.

a. Go to <http://www.oracle.com/technetwork/java/javase/downloads/index.html>.

b. Select the appropriate JDK version and click **Download**.

The JDK software is installed on your computer. You can change the default installation location.

2 Set JAVA_HOME.

▪ **Korn and bash shells:**

```
export JAVA_HOME=jdk-install-dir
export PATH=$JAVA_HOME/bin:$PATH
```

▪ **Bourne shell:**

```
JAVA_HOME=jdk-install-dir
export JAVA_HOME
PATH=$JAVA_HOME/bin:$PATH
```

```
export PATH
```

- **C shell:**

```
setenv JAVA_HOME jdk-install-dir
```

```
setenv PATH $JAVA_HOME/bin:$PATH
```

```
export PATH=$JAVA_HOME/bin:$PATH
```

- 3 **Change the permissions to enable you to run the Java CAPS Installer. For example:**
`chmod 755 JavaCAPS-Solaris.bin`

▼ To Install the JDK Software and Set JAVA_HOME on a Windows System

- 1 **Install the JDK software.**
 - a. Go to <http://www.oracle.com/technetwork/java/javase/downloads/index.html>.
 - b. **Select the appropriate JDK software and click Download.**

The JDK software is installed on your computer. You can change the default installation location.
- 2 **To set JAVA_HOME:**
 - a. **Right click My Computer and select Properties.**
 - b. **On the Advanced tab, select Environment Variables, and then edit JAVA_HOME to point to where the JDK software is located, for example, C:\Program Files\Java\jdk1.6.0_20.**

Installing Java CAPS Using the Java CAPS Installer

This procedure installs the GlassFish Enterprise Server, NetBeans IDE, Java CAPS core products such as the Oracle Java CAPS Enterprise Service Bus, and Java CAPS add-on components such as adapters, Oracle Java CAPS Java Repository, Oracle Java CAPS Java Enterprise Manager, Oracle Java CAPS JMS IQ Manager, and the UDDI Server using Java CAPS Installer. The uninstallation software is also installed.

Although you can change the defaults, accepting most of them is a good practice, especially the port numbers.



Caution – Java CAPS Release 6.3 does not support spaces in the installation directory path. Certain adapters require additional installation procedures. For details, see [Installing Third-Party JAR Files](#).

▼ To Install Java CAPS Components Using the Java CAPS Installer

Before You Begin

- Install Java SDK. For more information, see “[Installing the JDK Software and Setting JAVA_HOME](#)” on page 7. Make sure to define the JAVA_HOME variable.
- If you are installing support for Oracle Advanced Queue, make sure the queue is created and running prior to installation.
- On UNIX systems, set the DISPLAY variable to install in GUI mode. How you do this depends on how you connect to your system.

If you receive the error message “No X11 DISPLAY variable was set, but this program performed an operation which requires it” and you use the SSH command to connect to your system from another UNIX machine, you need to set the DISPLAY variable. For example,

- C shell with localhost as the host name


```
setenv DISPLAY localhost:0.0
```
- Korn shell with localhost as the host name


```
DISPLAY localhost:0.0
export DISPLAY
```
- If you use X Windows software, such as Exceed, the DISPLAY variable is set for you automatically.

Do not use telnet if you install on a Windows system.

Note – A security alert may appear during installation. If so, unblock the tagged program to continue the installation.

This installation includes installing support for WebLogic JMS and Oracle Advanced Queueing. If you elect not to install this support during installation, you can install it from a command line at a later time.

1 Download the installation executable file from the delivery media to the installation directory.

You can download the file from the following media:

- The Oracle download URL supplied by Oracle Support

- The DVDs that come with the Java Composite Application Platform Suite Media Kit
- 2 For some operating systems, the installation files are packaged inside a ZIP file. Extract JavaCAPS.zip to a temporary directory.**
-

Note – If a /tmp directory is not accessible or there is not enough space to extract the installation files and install, the Java CAPS Installer asks for a new directory.

- 3 Exit from all programs prior to beginning the installation.**
You can cancel the installation at any time during the process.
 - 4 To start the installation, initiate the appropriate executable file:**
 - UNIX or Linux: `sh JavaCAPS-OS.bin`, where *OS* is the name of the operating system.
 - Windows: `JavaCAPS-Windows.exe`
 - 5 When the Java CAPS Installer wizard appears, click Next on the Introduction page to begin the installation.**
 - 6 On the License Agreement page, select “I accept the terms of the License Agreement” and then click Next.**
 - 7 On the Choose Install Directory page, accept the default or click Choose to browse to and select another directory. Click Next.**
-



Caution – Java CAPS Release 6.3 does not support spaces in the installation directory path.

If you select the default directory and it does not exist, the Installer creates it for you. If you select another directory and want to return to the default directory, click Restore Default Folder.

- 8 On the Choose Install Set page, select the type of installation you want to perform (Complete or Custom) and then click Next.**
 - 9 If you selected Custom, on the Choose Install Set page deselect any of the components you do not want to install, and then click Next.**
-

Note – You should install all the components. Java CAPS JMS IQ Manager (STCMS) is required if you have Projects from any product releases between version 5.0.5 and version 5.1.3. The JMS IQ Manager is not an option on Macintosh installations.

- 10 On the Choose Java Developer Kit (JDK) page, accept the default location, or click Choose to navigate to the directory where your JDK software is located and then select it. Click Next.**

You need to select a JDK directory and not a Java Runtime Environment (JRE).

- 11 On the Java CAPS Repository Input page, do the following:**

- a. Enter a unique name for the Repository.
- b. Accept the default port number or enter a new port number.
- c. Click Next.



Caution – The default port number is 12000. This port assignment requires ten consecutive available ports, and during installation the system selects nine additional port numbers that sequentially follow the initial port number (12001–12009 for the default). Port checking only detects ports in use at the time, so the installation will not detect ports used by other applications that are not currently running. Use caution if you change the default port value.

- 12 On the NetBeans IDE Input page, deselect Install Repository NBMs only if you do not want to install Repository–based Java CAPS components such as Adapters. Click Next.**
- 13 On the Oracle GlassFish Server Input page, accept or change the default values and then click Next.**

This server is the GlassFish Java EE and JBI server on which you create and deploy Java CAPS applications. The fields are described below.

Note – In previous versions of Java CAPS, default Admin and Master passwords were automatically created. Beginning with Java CAPS 6.3, no default passwords are set and you need to define them manually. The passwords you specify must adhere to Oracle standards, containing at least eight characters, at least one number, and at least one lowercase and one uppercase character.

Setting	Description	Default
Admin User Name	The name you use when you log in as administrator.	admin
Admin Password	The password you use when you log in as administrator.	None

Setting	Description	Default
Master Password (for the SSL certificate for AS Admin operations)	The key used to protect data in GlassFish, that is, the password of the secure keystore. The password must be at least 8 characters long.	None When installing on AIX, use changeit as the initial master password. You can customize the password after installation by running the <code>mp_aix.sh</code> script located at <code>JavaCAPS_Home\appserver</code> .
Admin Port	The port on which GlassFish listens for administrative HTTP requests.	4848
HTTP Port	The port on which GlassFish listens for HTTP requests for web applications that you deploy.	8080
HTTPS Port	The port on which GlassFish listens for HTTPS requests for web applications that you deploy.	8181
JMS Port	The port on which GlassFish listens for JMS IQ Manager requests.	7676
JMX Admin Port	The port on which GlassFish listens for JMX administration requests.	8686
IIOP Port	The port on which GlassFish listens for CORBA requests.	3100
IIOP SSL Port	The port on which GlassFish listens for secure CORBA requests.	3820
IIOP Mutual Auth Port	The port on which GlassFish listens for mutual authentication requests.	3920

Tip – Record the administrator name, password, and master password, as well as the port numbers, for later use. You need the passwords when starting the GlassFish Admin Console, among other things.

14 On the Oracle AQ Support page, select the check box if you want to install support for Oracle Advanced Queueing.

This allows you to administer and monitor an Oracle Advanced Queue instance from Java CAPS. It creates a lifecycle module named OracleAQ in the GlassFish server and copies the `aqapi.jar` file to the domain's `\lib` directory.

- 15 If you selected to install support for Oracle Advance Queueing, the Oracle AQ Input page appears. Fill in the fields described in the following table, and then click Next.**

Note – If you choose to install support, be sure to follow the additional steps under [“To Allow Enterprise Manager to Delete Advanced Queue Messages”](#) on page 17 after the installation is complete.

Setting	Description
Name	A descriptive name for the Advanced Queue. This name appears on the Enterprise Manager with OracleAQ prepended to it.
Host	The name of the server on which the Advanced Queue is stored.
Port	The port number for the Advanced Queue database.
Username	The user name to use to log in to the Advanced Queue database.
Password/Confirm Password	The password to use to log in to the Advanced Queue database.
SID	The Oracle SID name of the Advanced Queue database.

- 16 On the WebLogic JMS Support page, select the check box if you want to install support for WebLogic JMS.**

This allows you to administer and monitor WebLogic JMS resources from Java CAPS. It creates a lifecycle module named in the GlassFish server and copies the `wlthin3client.jar` file to the domain's `\lib` directory.

- 17 If you selected to install support for WebLogic JMS, the WebLogic JMS Input page appears. Fill in the fields described in the following table, and then click Next.**

Note – If you install support, configure WebLogic by following the instructions under [“Enabling WebLogic JMS for Java CAPS”](#) on page 17 after the Java CAPS installation is complete.

Setting	Description
Name	A descriptive name for the WebLogic JMS server. This name appears on the Enterprise Manager with WebLogicMQ prepended to it.
Host	The name of the computer on which the WebLogic JMS server is located.
Port	The port number for the JMS server. The default is 7001.
Username	The user name to use to log in to the JMS server.
Password/Confirm Password	The password to use to log in to the JMS server.

Setting	Description
JMS Module Name	The name of the JMS Module containing the system resources and configuration.
JMS Server Name	The name of the WebLogic JMS Server. This is optional, and if not specified defaults to the first JMS server at the given host and port.
Sub Depl Name	The name of the JMS sub-deployment within the given module. This is optional, and if not specified defaults to the first sub-deployment in the module.

18 On the JMS IQ Manager Input page, specify how to install JMS IQ Manager.

Use the JMS IQ Manager for Java CAPS projects that require the same messaging behavior found in releases 5.0.5 through 5.1.3. It can be installed in addition to JMQ, the JMS server that ships with GlassFish. You can also install JMS IQ Manager manually to a different instance of GlassFish after this installation completes.

Note – The JMS IQ Manager is not an option on Macintosh systems.

a. Select the operating system for the JMS IQ Manager, or, if you do not want to install JMS IQ Manager, select Do Not Install.

The Oracle Java CAPS JMS IQ Manager uses native binaries, which are different for different operating systems and processor architectures. Choose the binary that matches the platform on which you want to install JMS IQ Manager.

b. Specify the Port number that JMS IQ Manager will listen on or accept the default.

c. Specify the SSL port number that JMS IQ Manager will listen on or accept the default.

d. To migrate the JMS IQ Manager from a previous version of Java CAPS, type the root directory of the previous installation in the Migration From Directory field.

e. Click Next.

19 On the Java CAPS Enterprise Manager Input page, specify the Host Name and Admin Port or accept the default values. Click Next.

- The Host Name is the name of the computer on which you are installing. Although this is usually the name of the computer Enterprise Manager is running on, you can specify the name of a proxy server.
- The Admin Port is the port on which Enterprise Manager listens to HTTP requests. The default value is 15000. This port assignment requires five consecutive available ports. During installation, the system selects four additional port numbers that sequentially follow the initial port number (15001–15004 for the default). Port checking only detects ports in

use at the time, so the installation will not detect ports used by other applications that are not currently running. Use caution if you change the default port value.

Record the port number for later use.

- Two default users are created for Enterprise Manager: **admin** (password **adminadmin**) and **STC** (password **Administrator**).

You should create new, unique users for your production environment.

- 20 On the Pre-Installation Summary page, click Install if you are satisfied with your selections. Otherwise, use the Previous button to change your selections.**

Note – If a firewall blocks any of the components from installing, remove the block and continue installing the component.

The Installing Java CAPS page appears.

- 21 When the Installation Complete page appears, read the comments before you click Done to exit the Installer.**

For additional details about the installation, see the installation logs, located in *JavaCAPS_Home\install\logs*.

The Java CAPS Installer finalizes the configuration and then closes. A “Register Now!” page opens on your browser.

- 22 Register Java CAPS.**

- a. (Optional) If you do not already have an account, under Create An Account click Create.**

The Registration form appears and asks for general information, such as name, email address, and so on. It requires that you set up a password for your account. Once you have filled out the form to your satisfaction, click Create.

- b. If you have an account, select “I accept the terms of use for registering Oracle programs,” and click Register Now. Enter your login information and click Go.**

Note – You can register at a later time. To do this, navigate to the base directory where you installed Java CAPS and run `register.html`. When a product registration screen appears, click Register.

- 23 The default domain is not registered in the NetBeans IDE. In order to access the application server and any JBI runtime components, you need to add the server to the IDE as described in “Adding the GlassFish Server to the NetBeans IDE” on page 18.**

- 24** If you deselected Install Repository NBM's on the NetBeans IDE Input page, you can install them now. See [“Installing Components Using the NetBeans IDE Update Center” on page 19](#) for details.

However, if you chose to install the Repository NBM's as part of the initial Java CAPS installation, all the modules have already been downloaded from the Repository to the NetBeans IDE.

Enabling Oracle Advanced Queueing

If you did not install support for Oracle Advanced Queueing, but want to use it, you can install support from the command line after Java CAPS is installed. Whether you install support for Advanced Queueing while or after installing Java CAPS, you need to run the provided script, `JavaCAPS_Home\appserver\addons\caps\oracleaq\jdbcwrappers.sp` against the Advanced Queue database in order to allow Enterprise Manager to delete messages from the Oracle Advanced Queue destinations.

▼ To Create the Java CAPS Advanced Queue User

- 1 Make sure the Advanced Queueing database is running.
- 2 Log in to the Advanced Queueing database from SQL*Plus as the system user as sysdba.
- 3 Create a Java CAPS user for the Advanced Queueing database by running the following commands:

```
DROP USER user CASCADE;
CREATE USER user IDENTIFIED BY password QUOTA UNLIMITED ON USERS;
GRANT CONNECT, AQ_ADMINISTRATOR_ROLE, AQ_USER_ROLE TO user;
```

- 4 Grant the Java CAPS user the following permissions:

```
GRANT SELECT ON V$XATRANS$ TO user;
GRANT SELECT ON DBA_PENDING_TRANS$ TO user;
GRANT SELECT ON DBA_2PC_PENDING TO user;
GRANT SELECT ON DB1_PENDING_TRANSACTIONS TO user;
```

▼ To Install Advanced Queueing Support After Installing Java CAPS

You can also use this procedure to install Advanced Queueing support on a new domain that you create after Java CAPS is installed. This procedure adds a lifecycle module to the GlassFish server.

- 1 Make sure the GlassFish server is running.

2 From a command prompt, navigate to *JavaCAPS_Home\appserver\bin*.

3 Type `asadmin`.

4 From the `asadmin` prompt, enter a command similar to the following:

```
create_oracleaq --oracleaqhost hostname --oracleaqsid SIDname
--oracleaqusername --oracleaqpassword OracleAdvanceQueueName
```

Tip – For complete information about running `create-oracleaq`, type `help create-oracleaq` from the `asadmin` command prompt.

5 Restart the GlassFish application server.

Note – Running `create-oracleaq` configures Enterprise Manager with a lifecycle module with the name specified at the end of the command. OracleAQ is prepended to the name you specify. You can modify the properties for the module from the GlassFish Admin Console on the Applications > Lifecycle Modules > *ModuleName* page. Running the command also copies the `aqapi.jar` file to the domain's `\lib` directory.

▼ To Allow Enterprise Manager to Delete Advanced Queue Messages

1 Make sure the Advanced Queueing database is running.

2 Log in to the Advanced Queueing database from SQL*Plus as the system user.

3 Run the following script:

```
@JavaCAPS_Home\appserver\addons\caps\oracleqjdbcwrappers.sp
```

4 Grant the Java CAPS user the following permission:

```
GRANT EXECUTE ON JDBC_PURGE_QUEUE_TABLE TO user;
```

Enabling WebLogic JMS for Java CAPS

If you did not install support for WebLogic JMS during the Java CAPS installation, you can install it from a command line any time after installing Java CAPS.

▼ To Install WebLogic JMS Support After Installing Java CAPS

You can also use this procedure to install WebLogic JMS support on a new domain that you create after Java CAPS is installed.

- 1 **Make sure the GlassFish server is running.**
- 2 **From a command prompt, navigate to *JavaCAPS_Home\appserver\bin*.**
- 3 **Type `asadmin`.**
- 4 **From the `asadmin` prompt, enter a command similar to the following:**

```
create-wl --wlhost hostname --wlport portNumber --wlusername username  
--wlpwpassword password --wljmsservername JmsServerName  
--oracleapasswordwljmsmodulename JmsModuleName --wlsubdeploymentname  
SubDeploymentName moduleName
```

Tip – For complete information about running `create-wl`, type **help create-wl** from the `asadmin` command prompt.

- 5 **Restart the GlassFish application server.**

Note – Running `create-wl` configures Enterprise Manager with a lifecycle module with the name specified at the end of the command. WebLogicMQ is prepended to the name you specify. You can modify the properties for the module from the GlassFish Admin Console on the Applications > Lifecycle Modules > *ModuleName* page. Running the command also copies the `wlthingt3client.jar` file to the domain's `\lib` directory.

Adding the GlassFish Server to the NetBeans IDE

NetBeans supports multiple versions of GlassFish Enterprise Server, so the server with the default domain is no longer automatically added to the Services window of the NetBeans IDE. You need to manually add the server and register the domain in order to work with runtime components.

▼ To Add the GlassFish Server

- 1 **On the NetBeans Services window, right-click Services and then click Add Server.**
The Add Server Instance wizard appears.

- 2 Select the version of GlassFish to add (GlassFish v2.x), and then click Next.**
The Server Location page appears.
- 3 In the Server Location field, enter the path to the Java CAPS installation of GlassFish or accept the default value.**
By default, the GlassFish server is installed to *JavaCAPS_Home\appserver*.
- 4 Select the type of domain to register. To register the default domain installed with Java CAPS, select Register Local Default Domain and select the domain from the drop-down list.**
- 5 Click Next.**
- 6 The remaining pages of the wizard depend on the type of domain you are registering. Enter the information as prompted on each page, and then click Finish when you are done.**

Installing Components Using the NetBeans IDE Update Center

This procedure installs Java CAPS Java EE components using the NetBeans IDE Update Center. These JBI-based Java CAPS components do not require a Repository.

If you ran the Java CAPS Installer without installing the Repository NetBeans modules (NBMs), those components were downloaded to the Repository but were not installed in NetBeans. You can add those components to NetBeans at any time. You can also install additional NetBeans components and community-developed components.

Note – Certain adapters require additional installation procedures. For details, see [Installing Third-Party JAR Files](#).

▼ To Install Components Using the NetBeans IDE Update Center

Before You Begin This task assumes that you have installed the NetBeans IDE and a Java CAPS Repository.

- 1 To start the Repository and NetBeans IDE, navigate to the base directory where you installed Java CAPS and start the appropriate executable files.**
- 2 If necessary, connect to the Repository from the NetBeans IDE. To do this, select Tools from the NetBeans IDE menu bar, point to CAPS Repository, and select Connect.**
- 3 From the NetBeans IDE menu bar select Tools and then Plugins.**

- 4 On the **Plugins** window, click the **Settings** tab.
 - 5 In the **Configuration of Update Centers** panel, select the type of components you want to install. To install the **Java CAPS Repository NBMs**, select **CAPS Repository Update Center**. If **CAPS Repository Update Center** does not appear in the list, do the following:
 - a. On the **Settings** page, click **Add**.
The **Update Center Customizer** dialog box appears.
 - b. In the **Name** field, enter **CAPS Repository Update Center**.
 - c. In the **URL** field, enter the following:
http://HostName:PortNo/repository/RepName/data/files/InstallManager/catalog.xml
where *HostName* is the name of the Repository server (or localhost), *PortNo* is the Repository base port number, and *RepName* is the name of the Repository.
 - d. Click **OK**.
-

Tip – You might need to click **Reload Catalog** on the **Installed** tab in order to see the available **Java CAPS** plugins.

- 6 Click the **Available Plugins** tab.
 - 7 Select the individual components to install, or right-click any of the entries and select **Check All**.
-

Note – If you installed the **Repository NBMs**, there will be no available plugins for the **CAPS Repository Update Center**. These components were installed during the **Java CAPS** installation.

- 8 Click **Install**.
 - 9 On the **NetBeans IDE Installer**, click **Next**, accept the license, and click **Install**.
-

Note – Ignore any validation or unsigned warnings and continue with the installation.

- 10 When the installation completes, click **Finish**.
- 11 If an additional wizard appears before **NetBeans IDE** refreshes, follow the onscreen steps to install the plugin.

Installing Java CAPS Components Using the Java CAPS Uploader

Use the Java CAPS Uploader to install additional Repository-based Java CAPS components. These components include all SAR files that were not installed using the Java CAPS Installer or the NetBeans IDE Update Center. The Uploader also enables you to download and extract ZIP files that are associated with or required for certain components.

The Enterprise Manager SVG Plugin for win32 is required when you use Internet Explorer and you want the Connectivity Map in Enterprise Manager to be able to zoom in and out. If you use Internet Explorer and do not install the SVG plugin, Enterprise Manager uses the JavaScript language to display the Connectivity Map instead of SVG and does not have zoom-in and zoom-out capabilities. The Enterprise Manager SVG Plugin for win32 is located under Auxiliary in the Java CAPS Uploader. Firefox has a built-in SVG and does not require the plugin.

Note – Certain adapters require additional installation procedures. For details, see [Installing Third-Party JAR Files](#).

▼ To Install Java CAPS Components Using the Java CAPS Uploader

Before You Begin This task assumes that you have installed the Repository using the Java CAPS Installer. The Java CAPS Uploader installs non-JBI based Java CAPS components that require a Repository.

- 1 **Start the Repository by navigating to the directory where you installed Java CAPS and starting the appropriate executable file.**
- 2 **In a browser window, go to `http://HostName:PortNumber`, where:**
 - *HostName* is the TCP/IP host name of the server where you installed the Repository and not the name of the Repository itself.
 - *PortNumber* is the port number that you specified during the installation of the Repository. The default port number is 15000.
- 3 **On the Java CAPS Uploader login page, enter your username and password.**

Note – These are the passwords you entered when you installed Java CAPS. There are no default values for these passwords.

The Java CAPS Uploader displays a list of components you have already installed.

- 4 To install additional Java CAPS components, select **Click to Install Additional Products**.
- 5 Under **Select Java Composite Application Platform Suite Products to Install**, expand a **Product Name** category such as **Core Product** or **OTD**.
- 6 Make your selections by selecting the box to the left of the component.

Note – Several of the product names, such as eGate and eWay, are pre-Release 6 terms. To see their current equivalents, refer to [Planning for Java CAPS Installation](#).

- 7 When you have selected all the components you want to install, click **Next**.
- 8 On the **Selecting Files to Install** page, browse to and select the appropriate SAR file, and then click **Next**.

For information about the location of the SAR files, see [Planning for Java CAPS Installation](#).

Note – If you decide you do not want to upload a particular component, click **Skip** to move on to the next component. However, sometimes you cannot skip an upload due to dependencies.

- 9 Repeat the previous step until you have selected all the necessary SAR files.
The Java CAPS Uploader uploads the selected components to the Repository.
- 10 To complete the installation, follow the steps under [“Installing Components Using the NetBeans IDE Update Center” on page 19](#) to install the new components to the NetBeans IDE.

▼ To Download and Expand ZIP Files Using the Java CAPS Uploader

Some Java CAPS components are delivered as ZIP files. When you copy the Java CAPS executable file to your installation directory, these ZIP files become available under the **Downloads** tab in the Java CAPS Uploader. For some components, tools or sample files are also delivered in this manner.

Note – See [“Installing Plugins Using Enterprise Manager Web Applications Manager” on page 23](#) for information about how to install adapter plugins and some of the other plugins listed under the **Downloads** tab.

Before You Begin This task assumes that the Repository is running and that you have started the Java CAPS Uploader.

- 1 **From the Java CAPS Uploader, click the Downloads tab.**

A list of components that are available to download from the Repository appear.

Note – This example downloads the Command Line Codegen.

- 2 **In the list of components to download, click a component to download and extract, such as CommandLineCodegen.**
- 3 **On the dialog box that appears, choose to save or open the file.**
- 4 **If you saved the file, open it in an extraction program, such as WinZip.**
- 5 **Extract all the files to a target directory.**

For example, you might extract the files to *InstallDirectory*\repository, where the *InstallDirectory* is the directory where you installed Java CAPS.

Installing Plugins Using Enterprise Manager Web Applications Manager

This procedure installs Java CAPS component plugins using the Java CAPS Enterprise Manager Web Applications Manager. These plugins are listed under the Downloads tab in the Java CAPS Uploader, and include adapter plugins as well as plugins for other product components, such as Web Services, Composite Page Designer, and Business Process Manager. You do not need to manually download these files; the Enterprise Manager accesses them directly from the Repository.

▼ To Install Java CAPS Plugins Using the Enterprise Manager Web Applications Manager

- 1 **Start Enterprise Manager by navigating to the directory where you installed Java CAPS and starting the appropriate executable file.**
- 2 **In a browser window, go to `http://HostName:PortNumber`, where:**
 - *HostName* is the TCP/IP host name of the server where you installed Enterprise Manager.
 - *PortNumber* is the port number that you specified for Enterprise Manager during installation (the default port number is 15000).
- 3 **Enter the login information and click Login.**

Note – These are the passwords you entered when you installed Java CAPS. There are no default values for these passwords.

4 In the Explorer pane on the left, click the Configuration icon.

A series of tabs appears in the right pane.

5 In the right pane, click the Web Applications Manager tab.

The Specify Repository Connection Properties page appears.

6 Enter the following values:

- **Host Address** – The Repository address in the format `http://HostName:PortNumber`, where *HostName* is the name of the computer where the Repository is installed, and *PortNumber* is the Repository port number (12000, by default).
- **User Name** – The Java CAPS administrator user name.
- **Password** – The Java CAPS administrator password.

7 Click Connect.

A table appears with a list of plugins that are available to install.

8 Select the application plugins you want to install or click Select All.

9 Click Install.

After installation is complete, the results appear at the bottom of the page.

Starting and Stopping Java CAPS

To start or stop Java CAPS, after the initial installation, navigate to the Java CAPS install directory or to the directory where the component is installed that you want to start or stop. Run the appropriate command.

Note – When you start the GlassFish server from the NetBeans IDE, you need to enter the master password. The dialog box that appears provides instructions for creating a password file so you can skip this step in the future.

Component	From Java CAPS Installation Directory	From Component Installation Directory
GlassFish Enterprise Server	UNIX – sh start_appserver_domain1.sh	
	UNIX – sh stop_appserver_domain1.sh	
	Windows GUI – start_appserver_domain1	
	Windows GUI – stop_appserver_domain1	
	Windows CLI – start start_appserver_domain1	
	Windows CLI – start stop_appserver_domain1	
Repository	UNIX – sh start_repository.sh	UNIX directory – <i>install-directory/repository/repository</i>
	UNIX – sh stop_repository.sh	CLI – sh startserver.sh
	Windows GUI – start_repository	CLI – sh stopserver.sh
	Windows GUI – stop_repository	Windows directory – <i>install-directory\repository\repository</i>
	Windows CLI – start start_repository	GUI – startserver.bat
	Windows CLI – start stop_repository	GUI – stopserver.bat
Enterprise Manager	UNIX – sh start_emanager.sh	UNIX directory – <i>install-directory/emanager</i>
	UNIX – sh stop_emanager.sh	CLI – sh startserver.sh
	Windows GUI – start_emanager	CLI – sh stopserver.sh
	Windows GUI – stop_emanager	Windows directory – <i>install-directory\emanager</i>
	Windows CLI – start start_emanager	GUI – startserver.bat
	Windows CLI – start stop_emanager	GUI – stopserver.bat
NetBeans IDE	Windows GUI – start_netbeans	Windows directory – <i>install-directory\netbeans\bin</i>
	Windows CLI – start start_netbeans	GUI – netbeans.exe
	To stop NetBeans click “X” in title bar	CLI – start netbeans

Component	From Java CAPS Installation Directory	From Component Installation Directory
Note – Windows provides a Repository Service Manager. To open it, navigate to <code>install-directory\repository\repository</code> and invoke <code>servicemanager.bat</code> to open the Java CAPS Repository Server Service Manager dialog box. Use the dialog box options to install and uninstall services, and to start and stop the Repository Server.		

Connecting to the Java CAPS Repository From the NetBeans IDE

To work with Repository-based components in the NetBeans IDE, you need to connect to the Java CAPS Repository from within the NetBeans IDE.

▼ To Connect to Java CAPS Repository from the NetBeans IDE

Before You Begin This procedure assumes that the NetBeans IDE is running and that the Java CAPS Repository has been installed and is running.

- 1 On the NetBeans IDE tool bar, select **Tools**, point to **CAPS Repository**, and then click **Connect**.
- 2 On the **Connect to Java CAPS Repository** page, ensure that the information in the **Repository URL** field matches the Repository configuration you set during the installation.
- 3 **Deselect the Remember Password box** if you want to provide the password each time you log on to the Repository.
- 4 **Click Connect**.

Note – If you have a security system, unblock any programs that are blocked, such as JMS IQ Manager.

You are now ready to work with Repository-based components and with the CAPS Repository Update Center if you need to install any additional Java CAPS components.

Creating a Windows Service for the GlassFish Domain

After you install Java CAPS, you can create a Windows Service for the Java CAPS domain in GlassFish by running a script that uses a tool provided with GlassFish ES specifically for this purpose. The script in the instructions below requires you to create a password file.

▼ To Create the Windows Service

- 1 Create a text file named `passwordfile` and save it to a local directory. Add the following text to the file:

```
AS_ADMIN_ADMINPASSWORD=password
```

```
AS_ADMIN_MASTERPASSWORD=password
```

```
AS_ADMIN_PASSWORD=password
```

Note – Substitute the actual values for *password* in the text above.

- 2 Save and close the password file.
- 3 Enter the following at the command line.



Caution – This text, and the text in the example below, has been wrapped for readability. When you enter this command, enter it all on one line and substitute a space for each line break.

```
C:\WINDOWS\system32\sc.exe create service-name
binPath= "fully-qualified-path-to-appservService.exe
fully-qualified-path-to-asadmin.bat
start-domain --user admin --passwordfile
fully-qualified-path-to-password-file domain-name"
"fully-qualified-path-to-asadmin.bat stop-domain domain-name"
start= auto DisplayName= "display-name"
```

where:

- *service-name* is the name you want to give the service; for example, “DOMAIN1”.
- *domain-name* is the name of the domain you are creating the service for. The default domain is named `domain1`.
- *display-name* is the name of the service as you want it to appear on the Services window.

The following example creates a service named “Java CAPS DOMAIN1” that starts and stops the domain named `domain1`, which was installed in the default Java CAPS location. It uses the

password file *JavaCAPS_Home\appserver\passwordfile*. Again, in an actual command line, this would be entered all in one line with spaces in place of the line breaks below.

```
C:\system32\sc.exe create DOMAIN1
binPath= "JavaCAPS_Home\appserver\lib\appservServer.exe
"JavaCAPS_Home\appserver\bin\asadmin.bat
start-domain --user admin --passwordfile JavaCAPS_Home\appserver\passwordfile
domain1\
"JavaCAPS_Home\appserver\bin\asadmin.bat stop-domain domain1\""
start= auto DisplayName= "JavaCAPS DOMAIN1"
```

The output is [SC] CreateService SUCCESS.

- 4 **To ensure that the stcms server shuts down properly when GlassFish is running as a Windows server, add the following line to the `jvm-options` section of**

JavaCAPS_Home\appserver\domains\DomainName\config\domain.xml:

```
<jvm-options>-Dcom.sun.enterprise.server.ss.ASQuickStartup=false</jvm-options>
```

▼ To Start, Stop, and Delete the Service

In the following commands, *DomainName* is the name of the domain you are using for Java CAPS. By default, this is *domain1*.

- 1 **To start the Service, enter the following at the command prompt:**

```
net start DomainName
```

Note – The output is The SunJavaSystemAppServer DOMAIN1 service is starting.. and The SunJavaSystemAppServer DOMAIN1 service was started successfully.

- 2 **To stop the Service, enter the following at the command prompt:**

```
net stop DomainName
```

- 3 **To delete the Service, enter the following at the command prompt:**

```
sc delete DomainName
```

Increasing the NetBeans IDE Heap Size

If you install the Oracle Java CAPS Message Library for HL7, we recommend that you increase the NetBeans IDE heap memory size. If the heap size is not sufficient it could result in out of memory exceptions from the built-in parser. Use the `netbeans.conf` file to set the heap size for the JVM on which NetBeans IDE runs.

The recommended heap sizes for NetBeans C/C++ Development Pack for medium- and large-sized applications are:

- For developing medium-sized applications, that is 100–2000 source files, on a system with one CPU and 1 GB of RAM: 512 MB
- For developing large-sized applications, that is more than 2000 source files, on a system with one or multiple CPUs and 2 GB of RAM: 1.5 GB

▼ To Increase the Heap Size in NetBeans IDE

Before You Begin Save a backup copy of the `netbeans.conf` file before beginning this process.

- 1 **Navigate to `JavaCAPS-home/netbeans-home/etc` and copy the `netbeans.conf` file to the NetBeans user directory (`JavaCAPS-home/.netbeans/caps/etc`).**

Note – You may need to create the `etc` directory in the NetBeans IDE user directory.

- 2 **In your NetBeans IDE user directory, edit the `-J-Xmx` command line Java startup switch in the `netbeans.conf` file, for example:**

```
# command line switches
netbeans_default_options=" -J-Xms32m -J-Xmx128m -J-XX:PermSize=32m
-J-XX:MaxPermSize=96m -J-Xverify:none -J-Dapple.laf.useScreenMenuBar=true"
```

- 3 **Restart the NetBeans IDE.**

Note – To ensure that you do not run out of memory while the built-in parser is running, you can also add the garbage collector switches, `-J-XX:+UseConcMarkSweepGC` (concurrent collector) and `-J-XX:+UseParNewGC` (parallel collector), to the `netbeans.conf` file.

Importing Java CAPS Sample Projects

Sample projects are available for implementation and product training. You can import the sample project files from the Java CAPS samples web site at <http://java.net/projects/javacaps-samples/pages/Home>.

Note – For some components, such as the TCP/IP HL7 Adapter, the samples are available from the Downloads tab of the Java CAPS Uploader. Some of the samples on the Java CAPS samples web site are for JBI-based projects. These projects do not need to be imported and can be opened directly in NetBeans.

▼ To Import a Repository Sample Project

Before You Begin Make sure that the Java CAPS Repository is running and that all necessary components have been uploaded through the Java CAPS Uploader and installed through the NetBeans Update Center. Save all unsaved work before proceeding.

- 1 In a browser window, go to the Java CAPS samples web site (<http://java.net/projects/javacaps-samples/pages/Home>).**

This page provides tabbed pages with links to each available sample.

- 2 Select the Sample Project Zip File link and save the archive file on your local machine.**

Remember where you saved the file.

- 3 Start the NetBeans IDE and connect to the running Repository:**

- a. Select Tools →CAPS Repository→Connect.**

- b. Enter the Repository connection values or accept the default ones.**

- c. Click Connect.**

- 4 In the NetBeans IDE, select Tools→CAPS Repository→Import Project.**

- 5 On the Import Project dialog box, click Yes.**

The Import Manager appears.

- 6 In the From ZIP File field, browse to the location of the sample project archive file.**

Note – Some of the sample ZIP files might need to be extracted in order to access the ZIP file for the actual sample Project.

- 7 In the Destination Project field, select As Top-Level to import the Project at the top level, or select the name of an existing project to import it into.**

- 8 Click Import.**

- 9 When the sample project has successfully imported, click Close.**

- 10 Repeat the above steps for other project files you want to import.**