Fast and easy development

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The Geronimo Eclipse Plugin (GEP) provides integration between Geronimo and the Web Tools Platform (WTP). With this plugin, users will be able to use the features in WTP to create, deploy and debug applications on Geronimo.
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This section provides a quick tutorial for developing and running applications with GEP in Geronimo.

This Quick start guide for developers is organized in the following sections:

Getting the software

The Geronimo Eclipse Plugin (GEP) requires the following prerequisite software (all of which is platform specific):

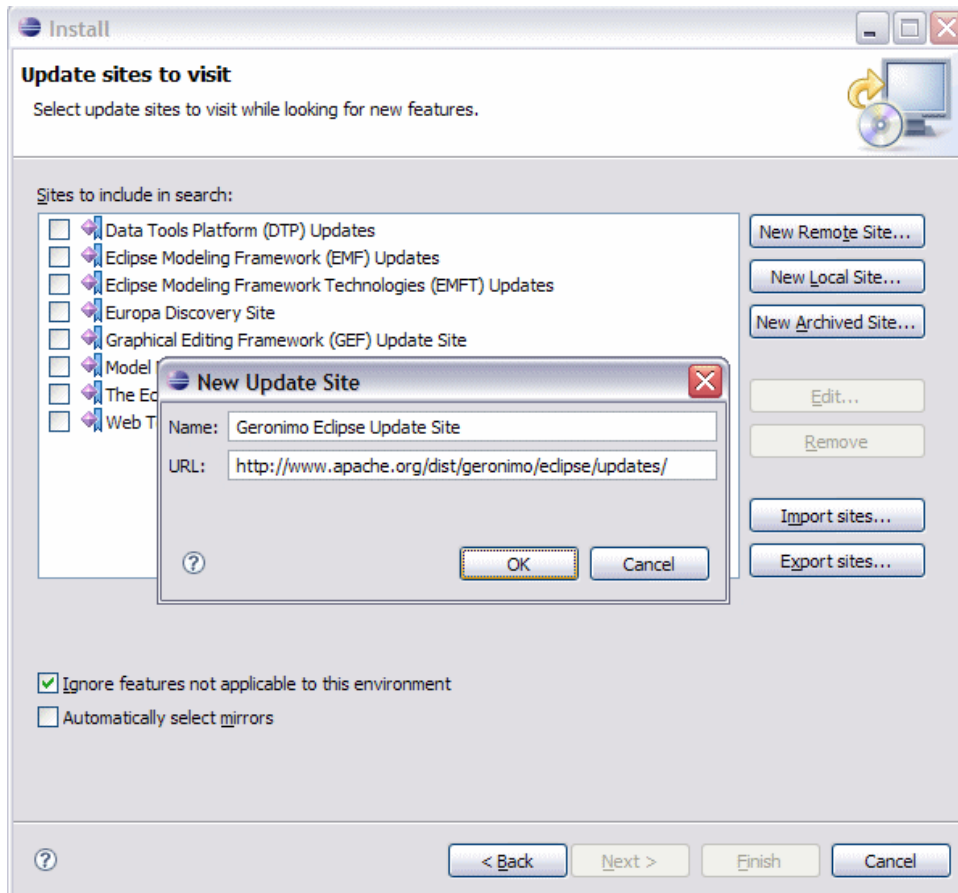- Sun JDK 6.0 (J2SE 6.0)
- Eclipse IDE for Java EE Developers

Sun JDK 6.0 can be downloaded from Sun's J2SE Downloads site. The Eclipse IDE for Java EE Developers can be downloaded in from the Eclipse Downloads site. Download and extract the **Eclipse IDE for Java EE Developers** archives to a directory of your choice (for example, C:\eclipse). The archive will be extracted to a directory named eclipse under the directory you specified (for example, C:\eclipse\eclipse), referred to as **<ECLIPSE_HOME>** from now on. Make sure that the JDK in the PATH is Sun JDK 6.0. Launch Eclipse by running **<ECLIPSE_HOME>/eclipse**.

The Geronimo server can be installed using the Geronimo Eclipse Plugin, or optionally you may install the manually. To install it manually, download the Geronimo 2.2 server from http://geronimo.apache.org/downloads.html and extract the archive to a directory of your choice (for e.g. C:\g). The archive will be extracted to a directory **geronimo-tomcat6-javaee5-2.2** (for e.g. C:\g\geronimo-tomcat6-javaee5-2.2) or **geronimo-jetty6-javaee5-2.2** depending on whether you downloaded Geronimo 2.2 distribution with Tomcat or Jetty as the web container. We will refer to this directory as **<GERONIMO_HOME>** from now on.

Installing Geronimo Eclipse Plugin

The GEP can be installed via the Eclipse Update manager by creating a new remote site pointing to http://www.apache.org/dist/geronimo/eclipse/updates/. Follow the steps below to install GEP:

1. Launch Eclipse by running **<ECLIPSE_HOME>/eclipse**.
2. Open the Eclipse Update Manager as follows:
    - Select **Help**, **Software Updates**, **Find and Install**.
    - Select **Search for new features to install** and click **Next**.
3. Create a Eclipse Remote Update Site as follows:
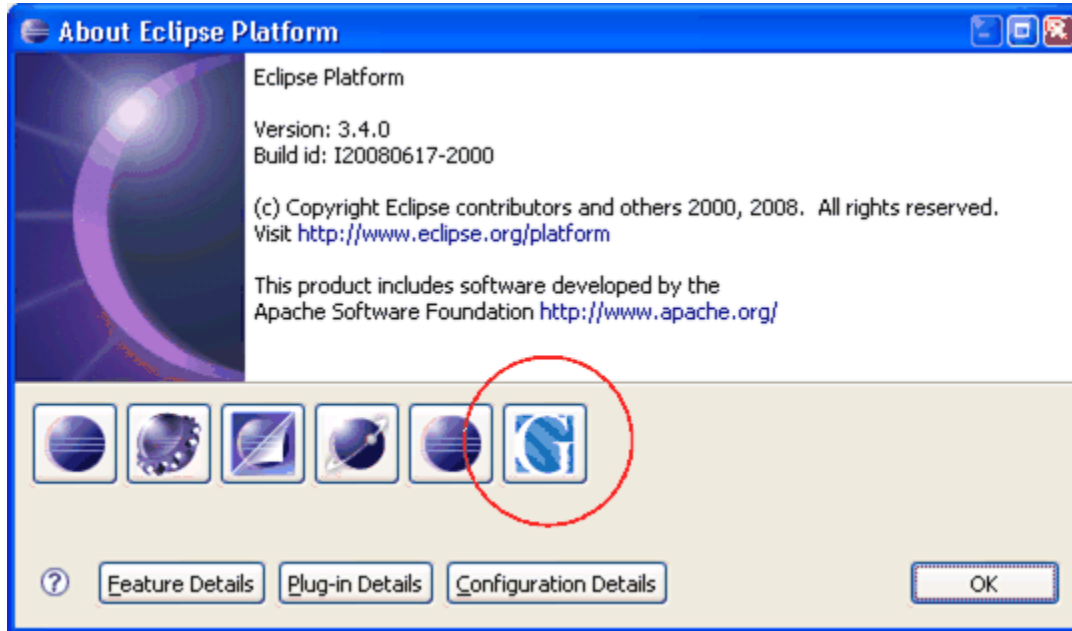   - Click the **New Remote Site...** button.

- Type Geronimo Eclipse Update Site (or other suitable unique name) in the *Name* field.
- Type the URL of the Geronimo Eclipse Update site http://www.apache.org/dist/geronimo/eclipse/updates in the *URL* field.
- Click **OK**.

4. Select only the Geronimo Eclipse Update Site in the Sites to include in search selection box and click **Finish**.
5. Select a mirror and click **OK** if prompted to do so.
6. In the *Search Results*, expand **Geronimo Eclipse Update Site** and **Geronimo WTP Server Adapters**.
7. Select **Geronimo Core Feature 2.2.0** and **Geronimo v2.2 Server Adapter 2.2.0** and click **Next**.
8. Read and accept any license agreements and click **Next**.
9. Click **Finish** to download the selected features.
10. Click **Install All**.
11. Click **Finish** to complete the installation.
12. Click **Yes** to restart Eclipse for the changes to take effect.

The definitive and current version of the GEP installation instructions may be found here: Installing Geronimo Eclipse Plugin.

Verify GEP Installation

To verify that the GEP installation has been successful, start your new Eclipse installation and from the workspace select **Help** --> **About Eclipse Platform** ". In the panel that appears you will see anywhere from 4-6 Eclipse icons representing the various Eclipse projects and/or components installed. You must also see the Geronimo icon as shown below. If not something has not been installed correctly. If the Geronimo icon does appear, that is a very good indication that Eclipse and the GEP have been installed correctly, and you can confidently continue to the next step.
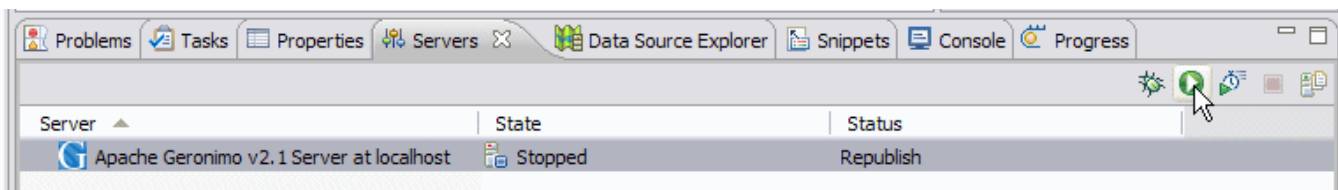

Defining a New Server Runtime

Follow the steps below to define a new Geronimo v2.2 Server Runtime:

1. Launch the **Define a New Server** dialog using one of the following:
    * From the *Servers* view in the Java EE Perspective: right click, select **New**, and **Server**.
    * From any Perspective: Select **File**, **New**, **Other**, **Server**.
2. Select **Apache Geronimo v2.2 Server** and click **Next**.
3. Select a 6.0 JRE (Click **Installed JREs** to add any new JREs and return to this dialog once done).
4. If you already have Geronimo v2.2 installation that you want to use with GEP, enter the directory name or browse to **<GERONIMO_HOME>** and click **Next**. Skip the next three steps and go to selecting source archive.
5. Enter a directory for *Application Server Installation Directory*, under *Download Options* select the Web container and click **Download and Install**. I mportant
    The directory specified for *Application Server Installation Directory* must exist in order to select *Download Options*.
6. Click **OK** for Install Confirmation. This will install the selected Geronimo v2.2 server and fill the *Application Server Installation Directory* field accordingly.
7. Click **Next**.
8. Select the location of the archive containing Geronimo source and click **Next**. This is required only if you intend to debug into Geronimo source code.
9. Modify *Hostname*, *Administrator Id*, *Administrator password*, *Web Connector port* and *RMI Naming port* if necessary and click **Finish**. Normally you will not need to change the default values for these fields for a newly installed Geronimo server.

This completes defining a new Geronimo Server runtime. The newly added server will appear in the *Servers* view. The server can be started by selecting the server and clicking on the **Start server** button.

Package your applications

If you do not have your application already in the Eclipse workspace, import the application archive using the following steps:

1. Select **File**, **Import** to launch the **Select** dialog.

2. Based on your application type, select as given below:
   - For Web application, Select **Web**, **WAR file**.
   - For EAR application, Select **J2EE**, **EAR file**.
   - For EJB application, Select **EJB**, **EJB JAR file**.
3. Click **Next**.
   Remaining steps are based on a Web application.
4. Type the name of the WAR file or select the WAR file by clicking on **Browse**, enter/edit the *Project Name* and select **Apache Geronimo v2.2 Runtime** as Target Runtime.
5. Click **Finish** to complete the import.

The imported application can be viewed in the *Project Explorer* view. The GEP will create a Geronimo specific deployment plan, in this case geronimo-web. xml under WebContent/WEB-INF, if one is not already present in the archive. You might need to edit the deployment plan to map any resources used by your application.

Deploy your application

To deploy the application on Geronimo, follow the steps below:

1. In the *Servers* view, right click on **Apache Geronimo v2.2 Server at localhost** and select **Add and Remove Projects**.
2. In the *Add and Remove Projects* dialog, select the project under **Available projects** and click on **Add** button. The project will now be listed under **Configured projects**.
3. Click **Finish**.

The application will be deployed when the server is Started or a Publish is invoked.

Run your application

In order to run the application follow the steps below:

1. In the *Project Explorer* view, right click on the project, select **Run As**, **Run on server**.
2. Select **Choose an existing server** and select **Apache Geronimo v2.2 server at localhost**.
3. Click **Finish**.

This will start the server if it not already started and run the application. The application's welcome page will open in a browser inside Eclipse.