Defining Geronimo server runtimes and servers

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A Geronimo Server Runtime in GEP associates a Geronimo 2.2 Server installation with a JRE to be used to run that server. A **Geronimo Server** in GEP associates a Geronimo Server Runtime with a profile consisting of Security settings, Publish Settings, Port Configuration, JVM settings to be used with that Geronimo Server Runtime. trueINLINE

This page discusses how to define Geronimo servers and server runtimes in Eclipse.

Before defining a Geronimo server runtime, you have to install a Geronimo Eclipse Plugin.

Defining a Geronimo server runtime

In order to define a new Geronimo Server v2.2 Runtime, follow the steps below:

1. Click Window -> Preferences -> Server -> Runtime Environments.

Preferences			
type filter text	Server Runtime Environm	nents	, → , → , →
æ-General æ-Ant æ-Data Management	Add, remove, or edit server Server runtime environment	r runtime environments. s:	
⊕ Help	Name	Type	Add
 Install/Update Java Java EE Plugrin Development Remote Systems Server Audio Launching Profilers Runtime Environments Tasks Team Terminal Usage Data Collector Validation Web Web Services XDoclet XML 	Apache Geronimo v2.2	Apache Geronimo	<u>k</u> dit <u>R</u> emove
?		OK	Cancel

2. Click Add to launch New Server Runtime Environment dialog.

3. Select Apache Geronimo v2.2, uncheck Create a new local server (we will discuss about the use of this option later) and click Next.

💽 New Server Runtime Environment	
New Server Runtime Environment Define a new server runtime environment	
Select the type of <u>r</u> untime environment:	Download additional server adapters
type filter text	
Apache Geronimo v2.0 Apache Geronimo v2.1 Apache Geronimo v2.2 Apache Tomcat v3.2 Apache Tomcat v4.0 Apache Tomcat v4.1 Apache Tomcat v5.0 Apache Tomcat v5.0 Apache Tomcat v5.0 Basic JBM 	
(?) < Back Next >	<u>Finish</u> Cancel

- Select Workbench default JRE (Click Installed JREs to add any new JREs and return to this dialog once done). Note that you are recommended to run Geronimo 2.2 on Sun JDK 1.6. See Installing prerequisite software for more information about the JRE.
 You must already have a Geronimo v2.2 installation that you want to use with GEP; enter the directory name or browse to <GERONIMO_HOME>
- and click Next.
 Select the location of the archive containing Geronimo source. This is required only if you intend to debug into Geronimo source code.
- 7. Click Finish to return to Server Runtime Environments dialog.

/pe filter text	Server Runtime Environr	nents	🔶 🔹 🔿 👻
⊕ General ⊕ Ant ⊕ Data Management	Add, remove, or edit serve: Server runtime e <u>n</u> vironment	r runtime environments. s:	
Help	Name	Туре	<u>A</u> dd
≝ Install/Update	Apache Geronimo v2.2	Apache Geronimo v2.2	
Tava EE			<u> <u> </u></u>
Plug−in Development			Remove
Remote Systems			
🕞 Run/Debug			Secret
Server			<u></u> earch
- Audio			-
Launching			-
Pupting Verivers			-
			-
l-Team			-
Terminal			-
🕒 Usage Data Collector			-
Validation			
⊡ Web			
B Web Services			
E XUoc⊥et			-
E. AUL			
			-
			-
	D:/geronimo-tomcat6-javaee	5-2.2-SNAPSHOT	

Additional Server Runtimes to use a different Geronimo server installation or a different JRE can be added in a similar manner.

Defining a Geronimo server

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

- 1. Launch the Define a New Server dialog using one of the following:
 - From the Servers view in the Java EE Perspective: Right-click, and New -> Server.
 From any Perspective: Select File -> New -> Other -> Server.

🔲 Propert	ies 👭 Servers 🛛 🛛 🏙 D	ata Source Explo	orer 🔚 Snippets
Г			1.
	Ne <u>w</u>	🕆 Server	
	Properties Alt+Enter		-

2. Select Apache Geronimo v2.2 Server, specify the server name (by default Apache Geronimo v2.2 Server at localhost), and select an Apache Geronimo v2.2 from the Server runtime environment dropdown and click Next.

New Server	_ 🗆 🗙
Define a New Server Choose the type of server to create	
Server's <u>h</u> ost name: localhost Download additional serv	er adapters
Select the <u>s</u> erver type:	
type filter text	
Apache Apache Geronimo v2.0 Server Apache Geronimo v2.1 Server Apache Geronimo v2.2 Server Tomcat v3.2 Server Tomcat v4.0 Server Tomcat v4.1 Server Tomcat v5.0 Server Tomcat v5.5 Server Apache Geronimo v2.2 Server	
Server name: Apache Geronimo v2.2 Server at localhost	
Server <u>r</u> untime environment: Apache Geronimo v2.2	✓ <u>Add</u>
<u>Configure runtime envi</u>	<u>ronments</u>
	Cancel

Additional Server Runtimes can be installed by clicking on Configure runtime environments... button and return to this step once done to select the newly added server runtime. Or you can add another Geronimo 2.2 runtime environment by clicking "Add...".
3. Modify Hostname, Administrator Id, Administrator password, Web Connector port and RMI Naming port if necessary and click Finish. Normally you will not have to change the default values for these fields for a newly installed Geronimo 2.2 server.

💭 New Server			
9 v2.2 Server 2 Server		G	
localhost			
system			

orts for this server.			
	Port Value		
	8080		
	1099		
< Back Next >	Finish	Cancel	
	v2.2 Server 2 Server localhost system ******** Norts for this server.	2 Server 2 Server localhost system ******* Norts for this server. Port Value 8080 1099 (Back Next) Finish	

This completes defining a new Geronimo 2.2 server. 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.

🚼 Markers	🔲 Properties	워 Servers	🔀 🛛 🏙 D.	ata Source	Explorer	🔚 Snippets
Apac	he Geronimo v2.	2 Server at	localhost	[Stopped]		

A Geronimo Server can also be defined while creating a Geronimo Server Runtime by checking the option Create a new local server. This will present an additional dialog to configure the hostname, ports, etc.

Administering the server

To view the server status in the Java EE perspective, open the *Servers* view. GEP monitors the server's status and sets the stopped, starting, and started indicators appropriately. This information is accurate even if you do not start or stop the server using Eclipse.

Starting the server

Use this procedure to start a server using the Eclipse framework.

- 1. In the Java EE perspective, open the Servers view.
- 2. On the Server panel, right click on the server to be started.
- 3. On the resulting context menu, click Start.

Note that you can start the server in debug or profiling mode if you installed Test and Performance Tools Platform (TPTP) eclipse plugin.

Stopping the server

Use this procedure to stop a server using the Eclipse framework.

- 1. In the Java EE perspective, open the Servers view.
- 2. On the Server panel, right click on the server to be stopped.
- 3. On the resulting context menu, click Stop.

Launching the administrative console

Use this procedure to launch the server's administrative console in Eclipse.

- 1. In the Java EE perspective, open the Servers view.
- 2. On the Server panel, right click on the server to be managed.
- 3. On the resulting context menu, click Launch WASCE Console.

Note: The server must be started for this option to be available and for it to work.

Launching the support

Use this procedure to launch the server's support page in Eclipse.

- 1. In the Java EE perspective, open the Servers view.
- 2. On the Server panel, right click on the server to be managed.
- 3. On the resulting context menu, click Launch WASCE Support.

Debugging the server

Use this procedure to start a server in debug mode using the Eclipse framework.

- 1. In the Java EE perspective, open the Servers view.
- 2. On the Server panel, right click on the server to be started.
- 3. On the resulting context menu, click Debug.

Creating custom server assemblies

Starting from Geronimo 2.2, you can customize server assemblies with GEP in Eclipse. See Assembling a server using GEP for more details about creating server assemblies using GEP.

Deploying and debugging applications

You can deploy or test your assets using GEP. See Deploying and debugging applications using GEP for more information about how to deploy or test applications in Eclipse.

Creating a new project

Once Geronimo Server Runtimes are defined, Eclipse provides these runtime for selecting as a target runtime while creating an EJB, Web and Java EE projects. Notice the *Target Runtime* field in the *Dynamic Web Project* dialog shown in the figure below.

🗑 New Dynamic Web Project 📃 🗖 🔀
Dynamic Web Project Create a standalone Dynamic Web project or add it to a new or existing Enterprise Application.
Project name:
Project contents Vise <u>d</u> efault
Directory: D:\Program Files\eclipse=jee=galileo=win32\eclipse\workspace Browse
Target runtime Apache Geronimo v2.2
Dynamic web module version
Configuration
Default Configuration for Apache Geronimo v2.2 Modify A good starting point for working with Apache Geronimo v2.2 runtime. Additional facets can later be installed to add new functionality to the project.
EAR membership Add project to an EAR
EAR project name: EAR 💽 New
Working sets Add project to working sets Working sets: Select

Upon adding the Geronimo 2.2 server runtime as the target runtime, the Geronimo server libraries and Java EE specification libraries get automatically added to the build path of the project. GEP will also create Geronimo specific deployment plans.

In order to run an application on Geronimo, follow the steps below:

- 1. Right click on the project and click Run As -> Run on Server.
- 2. Click Choose and existing server, select Apache Geronimo v2.2 Server at localhost and click Finish.

The application can also be run on Geronimo by adding the project to the Geronimo server explicitly as given below:

- 1. In the Servers view, right click on Apache Geronimo v2.2 Server at localhost and select Add and Remove Projects.
- 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 C onfigured projects.
- 3. Click Finish.
- 4. If the server status is shown as Republish, right click on the server and select Publish.