Introducing Geronimo Administration Console

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This topic describes the overall portlets layout and features you can utilize within Administration Console.

If you prefer a command line interface, look into Tools and commands for command line usage.

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Overview

The Geronimo Administration Console is a Web based interface that provides a convenient, user-friendly way to administer many aspects of the Geronimo server. Once you have the Apache Geronimo server started (see Starting and stopping the server) you can access the Administration Console by pointing your browser to the following URL:

http://localhost:8080/console

The Administration Console log in page is depicted in the following figure.

User management services

Centralized administration console

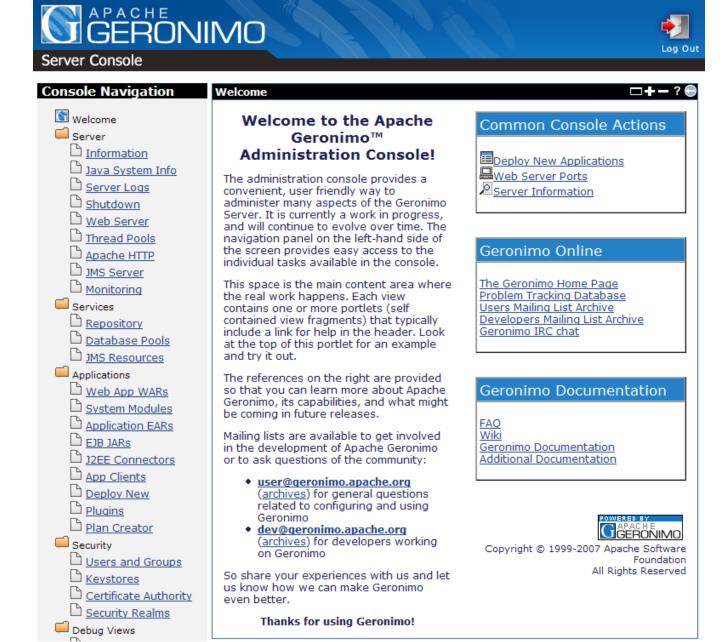


Log in to the Geronimo Console Username: Password: Login Welcome to the Geronimo™ Console GERONIMO™ is a Java-certified, production-grade platform designed to allow developers to rapidly deploy and manage their applications. The result is an integrated, highly functional application platform that leverages the latest innovations from the open source community and simplifies application deployment and maintenance. Geronimo™ has integrated the following components: Application server (Apache Geronimo) Web server and servlet engine (Tomcat) Web server and servlet engine (Jetty) JSP compiler (Jasper) JAX-RPC Web Services engine (Apache Axis) JAX-WS Web Services engine (Apache Axis2) JAX-WS Web Services engine (Apache CXF) Relational database (Apache Derby) Messaging (ActiveMQ)

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Log in by specifying **system** as the username and **manager** as the password. Once you are logged in you will be redirected to the console's welcome page. The console has two main areas, a navigation panel on the left and a main content area on the right.

The navigation panel on the left provides easy access to the individual tasks, it is always present and allows easy transition from task to task. The main content area on the right is where the real work happens, this area will change as you select the different tasks in the navigation panel on the left. Each view contains one or more portlets that typically include a link for help in the header, see the following figure as an example.



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Console Navigation (left panel)

As briefly explained in the previous section, the navigation panel provides access to the different tasks for administering resources in Geronimo. This navigation panel is organized in the following main groups:



Welcome Welcome

This is the welcome page you see when you log in. It provides a general description of what the Geronimo Administration Console is and some shortcut links to common tasks such as:

Common Console Actions

- Deploy Applications
- Web Server Ports
- Server Information

This page also provide links to:

Geronimo Online

- The Geronimo Home Page
- **Problem Tracking Database**
- Users Mailing List Archive
 Developers Mailing List Archive
 Geronimo IRC chat

Geronimo Documentation

- FAQ
- Wiki
- Geronimo Documentation
- Additional Documentation

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Server Server

Organized under the Server group you will find statistical information as well as links for configuring and administering the different servers. This group is organized as follows:

#Information #Java System Info **#Server Logs** #Shutdown #Web Server #Thread Pools #Apache HTTP **#JAR Aliases** #Monitoring **#JMS Server** #EJB Server

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Information Information

This portlet displays server information such as the version, start time and up time. In addition, it also provides information about the JVM such as Java Version, Vendor, Node, and Server Memory Usage.

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Java System Info Java System Info

This portlet displays the values of the system properties available to the server process.

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Server Logs Server Logs

This option provides four portlets, Log Manager, Server Log Viewer, Web Access Log Viewer and Derby Log Viewer.

Log Manager

This portlet allows the user to select a configuration file for logging and/or change the log level and Refresh interval. The default "Config file" is a standard **log4j** file and defines the location where the Geronimo Server will log Geronimo output. The configuration file also defines the log level which allows a finer control of what is being logged.

Server Log Viewer

This portlet displays the Geronimo server log and is helpful for debugging problems with the Geronimo Console and with deployed applications.

Web Access Log Viewer

This portlet displays and filters the Web container log file. This log file contains HTTP accesses and messages from JSP and servlet applications that are running on Geronimo. By default this portlet displays the contents of the log file for the current date. You can apply different filtering criteria to view only data of your interest.

Derby Log Viewer

This portlet displays the log file for Geronimo's internal database, Derby.

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Shutdown Shutdown

Clicking **Shutdown** will shutdown the server and cause the JVM to exit. To continue using the Geronimo Console after a shutdown, Geronimo must be restarted.

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Web Server Web Server

This option provides two portlets, Web Server Manager and Network Listeners.

Web Server Manager

When this portlet is enabled, it will collect server performance statistics. The values being measured are:

- Total Requests
- Total 1xx, 2xx, 3xx, 4xx, 5xx Responses
- Active Request Count (Current, Low, High)
- o Request Duration

Network Listeners

This portlet displays all the connector listeners (HTTP, HTTPS and AJP) and status for both Jetty and Tomcat Web containers. From this portlet you can add new listeners and change the status (stop, start, restart, edit, delete) of the existing connectors.

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Thread Pools Thread Pools

This portlet lists all the thread pools defined in the server. It shows the pool size and allows you to monitor individually each of the listed thread pools. By monitoring these threads you can gather statistical information such as pool max, lowest recorded, highest recorded and threads in use.

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Apache HTTP Apache HTTP

This portlet is a wizard that walks you through the process of configuring Apache Geronimo to use a remote Apache 2 HTTP server. To configure the remote HTTP server you will need to install the mod_jk Apache module on the remote server. Based on a series of questions the wizard will guide you through the configuration process.

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JAR AliasesJAR Aliases

This portlet is used to manage existing artifact aliases on Geronimo server, which means user can update the artifact_aliases.properties file directly on the server Console.

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Monitoring Monitoring

The Geronimo monitoring plug-in is broken down between server and client plug-ins, referred to as the 'Agent' and 'Console' respectively. When properly setup, these plug-ins provide both local and remote real-time JSR77 compliant statistic monitoring, as well as historical tracking of any exposed statistic with visual representations drawn in the form of graphs through the Dojo Toolkit's dojoX Charting packages. Starting from v2.2, this portlet is optional, you can enable it by installing a plugin from Geronimo repository.

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JMS Server JMS Server

This option provides two portlets, JMS Server Manager and JMS Network Listeners.

JMS Server Manager

This portlet displays the available JMS Brokers and their state.

• JMS Network Listeners

This portlet displays all the network connectors configured for the currently available JMS Brokers. From this portlet you can also start, stop, edit, add and delete JMS network connectors. Some connectors available to be added to ActiveMQ are tcp, stomp, vm, udp and multicast listeners.

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EJB Server EJB Server

This portlet provides all EJB statistics deployed in the server including stateless(stateful) Containers, CMP(BMP) Entity Containers and Message Driven Containers. By default, Geronimo is using Openejb as its EJB 3.0 implementation.

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Services Services

Organized under this group you will find links for configuring the following services:

#Repository#Database Pools#JMS Resources

Repository Repository

This portlet provides two functionalities. It assists in adding an archive into the Repository. Secondly it displays the artifacts installed in the server's repository. The layout of the repository is the same as that used by Apache Maven making it possible to easily copy files over. From this portlet you can also install new artifacts and remove existing ones.

Database Pools Database Pools

This portlet displays all the available database pools and their status. Only server-wide database pools can be edited in this portlet, database pools deployed as part of a single application cannot, you will have to change the deployment plan in the application instead.

From this portlet you can edit the available, system-wide, database pools. There is also a **usage** link with examples of how to use the pool from your application.

This portlet includes a database pool creation wizard for new pools and also lets you import database pools from JBoss 4 and WebLogic 8.1.

JMS Resources JMS Resources

This portlet lists all the JMS resource groups and states available in the Geronimo server, that is queues and factories. From this portlet you can create new JMS resource groups, this portlet provides two wizards, one for ActiveMQ and one for another JMS provider. For the latter you will have to provide the specific resource adapter RAR needed to connect to that particular provider.

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Applications Applications

Organized under this group you will find links for installing and administering applications.

#Web App WARs
#System Modules
#Application EARs
#EJB JARs
J2EE Connectors
#App Clients
#Deploy New
#Plugins
#Plan Creator

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Web App WARs Web App WARs

This portlet displays the installed Web applications and their status. From this portlet you can also stop, start and uninstall the available Web applications.

In addition, there is a new feature added "Expert Mode" that allows users more advanced options. Expert mode, which is commonly seen as the expert user checkbox, allows you to enable all actions for components. This can be understood as an override feature that will fully enable the user to perform options (Stop, Restart, and Uninstall) on components which would otherwise be grayed out and cause the application server to malfunction.

☐ Expert User (enable all actions on Geronimo Provided Components)

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System Modules System Modules

This portlet displays the installed System Modules and their status. From this portlet you can also stop, start and uninstall the available System Modules.

In addition, this portlet makes use of the "Expert Mode" feature as described here.

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Application EARs Application EARs

This portlet displays the installed Application EARs and their status. From this portlet you can also stop, start and uninstall the available application EARs.

In addition, this portlet makes use of the "Expert Mode" feature as described here.

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EJB JARS EJB JARS

This portlet displays the installed EJB JARs and their status. From this portlet you can also stop, start and uninstall the available EJB JARs.

In addition, this portlet makes use of the "Expert Mode" feature as described here.

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J2EE Connectors J2EE C

This portlet displays the installed J2EE connectors and their status. From this portlet you can also stop, start and uninstall the available J2EE Connectors.

In addition, this portlet makes use of the "Expert Mode" feature as described here.

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App Clients App Clients

This portlet displays the installed application clients and their status. From this portlet you can also stop, start and uninstall the available application clients.

In addition, this portlet makes use of the "Expert Mode" feature as described here.

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Deploy New Deploy New

This portlet allows you to deploy new applications to the Apache Geronimo server. Web applications require deployment plans, which are either packaged with the war file or kept in a separate file which is typically called <code>geronimo-web.xml</code>.

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Plugins Plugins

This portlet allows you to install or create Geronimo plugins. From this portlet you can select a remote plugins repository and search for available plugins and install them or export to plugins just about any module you have already installed in Geronimo. In addition you can create custom assembly server packages built with only the modules you specify.

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Plan Creator Plan Creator

This portlet features assisting you in creating a Geronimo Deployment Plan. Currently only supporting WAR files. For details visit the Creating deployment plans using the deployment plan wizard section. Starting from v2.2, this portlet is optional, you can enable it by installing a plugin from Geronimo repository.

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Security Security

#Users and Groups
#Keystores
#Certificate Authority
#Security Realm

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Users and Groups Users and Groups

This option provides two portlets, Console Realm Users and Console Realm Groups.

• Console Realm Users

This portlet displays all the Console Realm Users and allows you to add, change password and delete them.

Console Realm Groups

This portlet displays all the Console Realm Groups and allows you to add, modify and delete them.

Keystores Keystores

This portlet walks you through the process of configuring keystores to use with SSL connectors. From this portlet you can add or edit keystores, add Trust Certificates and create private keys.

Certificate Authority Certificate Authority

This portlet allows you to create a Certification Authority (CA) in Geronimo and issue certificates in reply to Certificate Signing Requests (CSRs). Click here for more detailed instructions.

Security Realm Security Realm

This portlet displays all available security realms and their status. Only server-wide security realms can be edited in this portlet. Security realms deployed as part of a single application cannot, and you will have to change the deployment plan in the application instead.

From this portlet you can edit the available, system-wide, security realms. There is also a **usage** link with examples of how to use the realm from your application.

This portlet also includes a security realm creation wizard for creating new realms.

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Embedded DB Embedded DB

Organized under this group you will find links:

#DB Info

#DB Manager

DB Info

This portlet displays information about the internal database, such as:

- Database Product name and version.
- · Driver and version.
- Connection URL.
- Supported functions and the supported SQL commands.

DB Manager

This option provides two portlets, DB Vlewer and Run SQL.

DR Viewer

This portlet displays all the available databases and their tables and displays the contents of the tables. To view the tables in a particular database, click on the database link. This will show all the tables in the database. To view the contents of the tables, click on the **View Contents** link. At the bottom of the DB Viewer portlet there are links to take you back to **View Databases** or **View Tables**.

Run SQL

This portlet lets you run SQL commands to manipulate the data in the tables, create a new database or delete a database. You can enter the SQL commands in the SQL command(s) text box, select the database that will be used and then click on Run SQL to execute the command.

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Debug Views Debug Views

Organized under this group you will find links:

#JMX Viewer

#LDAP Viewer

#ClassLoader Viewer

#JNDI Viewer

#Dependency Viewer

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Starting from v2.2, these portlets are optional, you can enable them by installing a plugin from Geronimo repository.

JMX Viewer

This portlet provides a **tree** like representation for you to browse the different types of MBeans. Each MBean will be represented as a tree node that shows its object name representation. All MBeans will give you a list of MBeans grouped by its domain.

LDAP Viewer

This portlet lets you connect to any LDAP server and browse its content but not edit it. This portlet comes predefined to access the LDAP embedded in Geronimo, make sure the service is running before you connect to the server.

ClassLoader Viewer

This view can be used to all the classloader involved in server and the classes it loads.

JNDI Viewer

This view can be used to view JNDI context for various modules.

Dependency Viewer

This view can be used to view all the modules and its dependencies.

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