



GlassFish v3 Application Server Quick Start Guide



Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054
U.S.A.

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Application Server Overview

The *GlassFish Application Server 10TP2 Quick Start Guide* provides basic instructions for quickly getting up and running with GlassFish Application Server 10TP2 software. This guide provides basic instructions for the most common Application Server tasks, including starting and configuring the Application Server, deploying applications, and getting started with using NetBeans™, jRuby, and Eclipse technologies.

This chapter provides a basic introduction to GlassFish Application Server core concepts, features, and components.

Note – This document does not provide comprehensive reference information or advanced procedures for working with GlassFish Application Server. Refer to the other documents listed in on the [Application Server Documentation Home Page](#) for more comprehensive information and instructions.

This chapter includes the following topics:

- “Installing Application Server Software” on page 6
- “Application Server Core Concepts” on page 6
- “For More Information” on page 8

For information about conventions used in this document, see the [Documentation Conventions](#) page.

Installing Application Server Software

Install the GlassFish Application Server software before continuing with this document. See the [Application Server Installation Guide](#) for complete Application Server installation instructions.

GlassFish Application Server 10TP2 software is available from [Application Server — V3 Technology Preview](#) page.

Application Server Core Concepts

The GlassFish Application Server is an open source, plugin-based, Java EE 5 application server that provides enterprise class features like advanced administration and monitoring, clustering, high availability database (HADB) and load balancing support, and a bundled Java DB database engine.

Application Server implements the newest features of the Java EE 5 platform, including JavaServer Pages (JSP) 2.1, JavaServer Faces (JSF) 1.2, Servlet 2.5, and Java Architecture for XML Binding (JAXB) 2.1, among others.

Note – Java API for Web Services (JAX-WS) 2.1/Metro is available as a separate download from the [“Application Server Update Center”](#) on page 7.

In addition to implementing the core Java 5 EE technologies, this 10TP2 supports jRugy scripting, NetBeans plugins, downloadable extensions such as Metro, jRuby runtime, and Jersey, and Web container technologies such as Servlet 2.5, JSP 2.1, JSF 1.2, jMaki 1.x, and Comet/Cometd.

- [“Application Server Components”](#) on page 6
- [“Application Server Administration Tools”](#) on page 7
- [“Application Server Domains”](#) on page 7
- [“Application Server Update Center”](#) on page 7

Application Server Components

For the purposes of this *Quick Start Guide* and your initial interactions with the Application Server, there are five Application Server components you will work with:

Server Engine

Framework in which Web domains are hosted, and Web applications and services are deployed, monitored, and maintained

Database Engine	Back-end data store used by Web applications and services
Admin Console GUI	Browser-based tool for configuring, managing, deploying, and monitoring domains, database back end, Web applications, and Web services
Admintool (CLI)	Command—line interface for configuring, managing, deploying, and monitoring domains, database back end, Web applications, and Web services
Server Plugins	Web applications, services, and scripting components plugged into the server framework

Application Server Administration Tools

GlassFish Application Server provides three means for configuring, running, and managing the Application Server:

- A Web browser-based administration console (Admin Console GUI)
- A set of command—line tools, the centerpiece of which is `asadmin` (the Admintool CLI), incorporating all features of the browser-based administration console
- Programmatic Java Management Extensions (JMX™) APIs

For the purposes of this document, the only means of management discussed here are the two most commonly used interfaces: the browser-based administration console and the Admintool CLI.

Application Server Domains

In the context of Application Server configuration, a *domain* is a collection of configuration data, deployed applications, and machines with a designated administrator. The domain definition is encoded in a simple XML text file, and describes and can control the operation of several applications, standalone Application Server instances and clusters, potentially spread over multiple machines. (Note that cluster configuration is not covered in this document.) By default, when you install Application Server, a default domain called *domain1* is created. This default domain is referenced throughout the remainder of this document.

Application Server Update Center

The GlassFish Application Server Update Center is a convenient GUI-based tool for getting the latest versions of various Application Server plugins, extensions, and related applications. There is also a command-line interface for all Update Center functions.

The Update Center can be launched with the `updatetool` command in the Application Server `install-dir/updatecenter/bin` directory, or from the Application Server administration console GUI.

For More Information

The GlassFish Application Server is an open source community project for which numerous sources of additional information are available.

GlassFish Application Server Project Page	Starting point for Application Server downloads, documentation, wikis, and forums
Application Server Documentation Home Page	Complete Application Server documentation
Application Server Wiki	Community site that includes a wide range of topics related to Application Server
Application Server FAQ	Several FAQs covering various Application Server topics
Application Server user forums	Provide community support and tips for working with Application Server
Application Server Screencasts	Rapidly growing collection of screencasts that demonstrate numerous features and examples for working with Application Server and related projects
Java EE 5 Tutorial	Provides extensive instructions, examples, and sample code for working with all Java platform core technologies

Using Application Server Software

This chapter explains how to get started with a basic set of Application Server tasks. The following topics are included in this chapter:

- “Starting and Stopping the Default Domain” on page 9
- “Starting and Stopping the Bundled Java DB Server” on page 10
- “Using the Administration Console GUI” on page 11
- “Deploying and Undeploying Applications” on page 12

Note – The instructions in this chapter use UNIX/Linux-standard forward slashes (/) for directory path separators in commands and file names. If you are running Application Server on a Microsoft Windows system, be sure to use backslashes (\) instead; for example:

- **UNIX/Linux:** *install-dir/bin/asadmin*
 - **Windows:** *install-dir\bin\asadmin*
-

Starting and Stopping the Default Domain

By default, when you install Application Server, a default domain named `domain1` is created.

▼ To Start the Default Domain

Before You Begin Make sure that you have installed [Java JDK 6 Update 5](#) on the system on which Application Server is installed, and that the JDK `bin` directory is in your system `PATH`. See the [Application Server Installation Guide](#) for Application Server 10TP2 installation instructions.

- **Use the `asadmin start-domain` command.**

install-dir/bin/asadmin start-domain

- **Alternatively, you can enter the full command:**

```
java -jar install-dir/modules/admin-cli-10.0-SNAPSHOT.jar start-domain
```

- **As another alternative, you can run the `startserv` script.**

install-dir/bin/startserv

Note – The `startserv` script is deprecated, and may not be available in future versions of Application Server.

Any of these commands starts the default domain, `domain1`.

▼ To Stop the Default Domain

- **Use the `asadmin stop-domain` command.**

install-dir/bin/asadmin stop-domain

- **Alternatively, you can enter the full command:**

```
java -jar install-dir/modules/admin-cli-10.0-SNAPSHOT.jar stop-domain
```

- **As another alternative, you can run the `stopserv` script.**

install-dir/bin/stopserv

Note – The `stopserv` script is deprecated, and may not be available in future versions of Application Server.

Any of these commands stops the default domain, `domain1`.

Starting and Stopping the Bundled Java DB Server

Application Server is bundled by default with a Java DB server implementation, although you can use any JDBC-compliant database engine. The database is not started by default when you start Application Server, so if you have applications need a database backend, you need to start the database server manually.

▼ To Start the Java DB Server

The instructions in this procedure describe how to start the Java DB server that is bundled with Application Server, but they apply for the most part to any database you want to use.

Note – At least one Application Server domain must be started *before* starting the database server.

- **Use the `asadmin start-database` command.**

The general form for the command is:

```
install-dir/bin/asadmin start-database --dbhome directory_path
```

By default, for the Java DB bundled with Application Server, you do not need to use the `--dbhome` option:

```
install-dir/bin/asadmin start-database
```

This starts the default Java DB located in `install-dir/glassfish/javadb`.

▼ To Stop the Java DB Server

- **Use the `asadmin stop-database` command.**

```
install-dir/bin/asadmin stop-database
```

Using the Administration Console GUI

The Application Server Administration Console GUI (hereafter referred to as the *Admin Console*) provides a graphical, browser-based means for configuring, maintaining, and monitoring the Application Server and your domains.

Note – In the Application Server 10TP2 release, the Admin Console is not installed by default, but is instead installed when you invoke it for the first time after installing Application Server.

▼ To Launch the Admin Console

Before You Begin Make sure at least one Application Server domain is started, as described in [“To Start the Default Domain” on page 9](#).

1 Open the Admin Console URL in a browser window.

The default URL for the Admin Console is:

`http://localhost:4848/adminui/index.jsf`

You are prompted to install the Admin Console.

2 Enter a proxy host and proxy port, if necessary, and then click *OK* to start the Admin Console installation.

3 When the installation is complete, refresh the browser page to launch the Admin Console.

4 Refer to the *Sun Java System Application Server 10 Administration Guide* and to the Admin Console online help for instructions on using the Admin Console.

Deploying and Undeploying Applications

The [Java EE 5 Tutorial](#) includes several sample applications in WAR format that you can use to familiarize yourself with how Application Server works. The instructions in this section use the `Hello1.war` sample described in [Deploying a WAR File](#) sample.

The process of configuring and enabling an application to run within the Application Server framework is referred to as *deployment*. You can deploy applications in three ways:

- From the command line (Admin Console CLI) with the `asadmin deploy` command
- From the Admin Console GUI
- By placing the application in the `install-dir/domains/domain_name/autodeploy` directory

Note – In the Application Server 10TP2 release, applications can be packaged for deployment in Web Archive (WAR) format only.

The remainder of this chapter explains how to deploy, list, and undeploy applications.

- [“To Deploy an Application From the Admin Console CLI”](#) on page 13
- [“To List Deployed Applications From the Admin Console CLI”](#) on page 13
- [“To Undeploy an Application From the Admin Console CLI”](#) on page 13
- [“To Deploy an Application From the Admin Console GUI”](#) on page 13
- [“To View Deployed Applications in the Admin Console GUI”](#) on page 13
- [“To Undeploy an Application From the Admin Console GUI”](#) on page 14
- [“To Deploy an Application Using Autodeploy”](#) on page 14
- [“To Undeploy an Autodeployed Application”](#) on page 14

▼ To Deploy an Application From the Admin Console CLI

- Use the `asadmin deploy` command.

The general form for the command is:

```
install-dir/bin/asadmin deploy war_name
```

To deploy the `***[TBD]` application, the command is:

```
install-dir/bin/asadmin deploy ***[TBD]
```

▼ To List Deployed Applications From the Admin Console CLI

- Use the `asadmin list-applications` command:

```
install-dir/bin/asadmin list-applications
```

▼ To Undeploy an Application From the Admin Console CLI

- Use the `asadmin undeploy` command.

The general form for the command is:

```
install-dir/bin/asadmin undeploy --name war_name
```

▼ To Deploy an Application From the Admin Console GUI

- `***[TBD]`

▼ To View Deployed Applications in the Admin Console GUI

- `***[TBD]`

▼ To Undeploy an Application From the Admin Console GUI

- *****[TBD]**

▼ To Deploy an Application Using Autodeploy

- 1 **Create a directory named `install-dir/domains/domain_name/autodeploy`**
domain_name is the name of the domain for which you want to configure autodeployment. For this example, use the default domain1 domain:
`install-dir/domains/domain1/autodeploy`
- 2 **Copy the application WAR file to the `install-dir/domains/domain_name/autodeploy` directory.**
The application is automatically discovered and started by Application Server.

▼ To Undeploy an Autodeployed Application

- **Delete the application from the domain's `autodeploy` directory.**

Configuring Container Technologies

In addition to Web applications packaged in JAR, WAR, and EAR formats, Application Server can be configured to work with NetBeans, jRuby, and Eclipse technologies. This chapter provides a brief introduction to configuring each of these technologies to work with Application Server

- [“Working With NetBeans” on page 15](#)
- [“Working With jRuby” on page 15](#)
- [“Working With Eclipse” on page 15](#)

Working With NetBeans

***[TBD]

Working With jRuby

***[TBD]

Working With Eclipse

***[TBD]

