Sun GlassFish Enterprise Server v3 Prelude Quick Start Guide

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Enterprise Server Quick Start Guide

Sun GlassFish Enterprise Server v3 Prelude provides the following:

- A lightweight and extensible core based on OSGi Alliance standards
- A web and scripting container
- An easy-to-use Administration Console for configuration and management
- Update Center connectivity

This document provides the following topics:

- "How This Quick Start Guide Works" on page 3
- "Obtaining Enterprise Server v3 Prelude Software" on page 4
- "Installing Enterprise Server v3 Prelude Software" on page 5
- "Starting and Stopping the Default Domain" on page 6
- "Starting and Stopping the Database Server" on page 7
- "Starting the Administration Console" on page 8
- "Deploying and Undeploying Applications" on page 8
- "Removing Enterprise Server v3 Prelude Software" on page 13
- "For More Information" on page 13

How This Quick Start Guide Works

The *Sun GlassFish Enterprise Server v3 Prelude Quick Start Guide* enables you to quickly learn the basics about key Enterprise Server features.

Step-by-step procedures introduce you to product features and allow you to learn about and use them immediately.

The instructions and examples in this document use the forward slash character (/) as path separators in all file and command names. Be sure to use the correct character for the system that Enterprise Server is installed on. For example:

- **UNIX® systems, Linux, or MacOS X systems:** *installation-directory*`/bin/asadmin`
- **Windows systems or Mac OS X systems:** *installation-directory*`\bin\asadmin`

This document provides fundamental information only. For links to comprehensive information about Enterprise Server or other entities mentioned in this document, see "For More Information" on page 13.

When this guide is updated, the most recent version is available in the Enterprise Server v3 Prelude documentation collection (`http://docs.sun.com/coll/1343.7`).

Obtaining Enterprise Server v3 Prelude Software

To read additional details about this release before you begin, review the *Sun GlassFish Enterprise Server v3 Prelude Release Notes*. The *Release Notes* provide recent information, limitations, and tips for installing and working with Sun GlassFish Enterprise Server v3 Prelude software.

To use this guide to explore the Enterprise Server features, Enterprise Server v3 Prelude software must be installed on your system. You have these options:

- **Install Enterprise Server v3 Prelude**. If you do not have this software, select one of the following installation options:
  - Download the demonstration version following the steps in this guide. For instructions, see "Installing Enterprise Server v3 Prelude Software" on page 5.
  - Follow the installation instructions provided in *Sun GlassFish Enterprise Server v3 Prelude Installation Guide*.

  Note – The Enterprise Server installation requires JDK 5 (`http://java.sun.com/javase/downloads/index_jdk5.jsp`) release or JDK 6 (`http://java.sun.com/javase/downloads/index.jsp`) release. Make sure that the JDK 5 release or JDK 6 release `bin` directory is in your `PATH` so that the `java` binary used with Enterprise Server comes from the JDK release rather than a Java™ Runtime Environment implementation.

- **Use an existing installation of Enterprise Server v3 Prelude**.

  If you already have the latest version of Enterprise Server v3 Prelude software, go to "Starting and Stopping the Default Domain" on page 6 to start looking at key features of Enterprise Server.
- **Update an existing installation of Enterprise Server v3 Prelude**.

If you have an older version of the software, update to the latest version. For instructions, go to Chapter 2, "Updating an Existing Enterprise Server v3 Prelude Installation," in *Sun GlassFish Enterprise Server v3 Prelude Installation Guide*.

Installing Enterprise Server v3 Prelude Software

Tip – If Enterprise Server v3 Prelude software is already installed and updated, you can skip this section and go to "Starting and Stopping the Default Domain" on page 6.

Performing an Enterprise Server Installation

This section provides instructions for installing Enterprise Server v3 Prelude software.

▼ To Install Enterprise Server Software

Before You Begin Ensure that your system meets the requirements that are stated in "Required JDK Version" in *Sun GlassFish Enterprise Server v3 Prelude Release Notes*.

1. **Select a directory to install Enterprise Server.**

   - **Use the default directory.**

     If you do not specify an installation directory, the software will be installed in the following directories:

     - **Solaris™ systems, Linux, or MacOS X systems:** *user-home-directory*`/glassfishv3-prelude`
     - **Windows systems:** `C:\glassfish-v3-prelude`

   - **Set up a directory for installing Enterprise Server.**

   Throughout this document, the directory you choose for installing is referred to as *as-install*.

2. **Go to the Enterprise Server v3 Prelude download page.**

3. **Click the Download link for Enterprise Server v3 Prelude.**

   The Sun GlassFish Enterprise Server v3 Prelude page is displayed.

4. **Select your download options.**

   a. **From the Platform scrollbar, select Multi-Platform Zip.**

   b. **From the Language scrollbar, select your language.**

c. **Select the license checkbox.**

5 **Cick Continue.**

6 **Select theSun GlassFish Enterprise Server v3 Prelude check box.**

7 **Click the `glassfish-v3-prelude.zip` link, and respond to the prompts.**

The `glassfish-v3-prelude.zip` file is copied to the installation directory.

8 **Use the `cd` command to change to the installation directory.**

`cd` *as-install*

9 **Unzip the bundle.**

```
unzip gfv3-prelude.zip
```

The v3 Prelude distribution is installed into a new `glassfishv3-prelude` directory under your current installation directory.

10 **To explore Enterprise Server features, go to** **"Starting and Stopping the Default Domain" on page 6.**

Starting and Stopping the Default Domain

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

▼ To Start the Default Domain

Before You Begin Enterprise Server software must be installed before you start the domain.

- **To start the default domain, use the `start-domain` command.**
  - **Use the short form:**

    as-install`/bin/asadmin start-domain`
  - **Use the long form:**

    `java -jar` *as-install*`/glassfish/modules/admin-cli.jar start-domain`

  Either command starts the default domain, `domain1`.

▼ To Stop the Default Domain

- **To stop the default domain, use the** `asadmin stop-domain` **command.**

  - **Use the short form:**

    as-install`/bin/asadmin stop-domain`

  - **Use the long form:**

    `java -jar` *as-install*`/glassfish/modules/admin-cli.jar stop-domain`

  Either command stops the default domain, `domain1`.

Starting and Stopping the Database Server

A database server is not started by default when you start the Enterprise Server domain. If you have applications that need a database back end, you must start and stop the database server manually.

▼ To Start the Sun GlassFish Java DB Server

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

Before You Begin At least one Enterprise Server domain must be started before you start the database server.

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

  The general form for the command is:

  as-install`/bin/asadmin start-database --dbhome` *directory-path*

  For example, to start the Sun GlassFish from its default location:

  as-install`/bin/asadmin start-database --dbhome` *as-install*`/javadb`

▼ To Stop the Java DB Server

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

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

Starting the Administration Console

The Enterprise Server Administration Console provides a browser interface for configuring, administering, and monitoring the Enterprise Server and your domains.

▼ To Launch the Administration Console

Before You Begin At least one Enterprise Server domain must be started before you launch the Administration Console.

1 **To open the Administration Console, type the URL in a browser window.**

The default URL for the Administration Console is:

```
http://localhost:4848
```

2 **Log in to the Administration Console.**

By default, the user name is `anonymous` and the Password field is left blank (no password).

See Also Refer to the Administration Console online help for further instructions.

Deploying and Undeploying Applications

The process of configuring and enabling an application to run within the Enterprise Server framework is referred to as *deployment*.

Note – In the v3 Prelude release, applications can be packaged for deployment in web archive (WAR) format only.

This section explains how to deploy, list, and undeploy applications.

- "Obtaining a Sample Application" on page 8
- "Deploying an Application from the Command Line" on page 9
- "Deploying an Application by Using the Administration Console" on page 10
- "Deploying an Application Automatically" on page 12

Obtaining a Sample Application

The procedures in this section use the `hello.war` application.

▼ To Obtain a Sample Application

1. **To download a copy of the `hello.war` sample, go to `https://glassfish.dev.java.net/downloads/quickstart/hello.war`.**
2. **Click Yes to save the `hello.war` file.**
3. **Save the `hello.war` file in the directory of your choice. This document refers to this directory as *sample-dir*.**

Deploying an Application from the Command Line

You can deploy applications from the command line by using the `asadmin deploy` command.

▼ To Deploy the Sample Application From the Command Line

Before You Begin The sample application must be available before you start this task. To download the sample, see "Obtaining a Sample Application" on page 8. At least one Enterprise Server domain must be started before you deploy the sample application.

1. **Use the `asadmin deploy` command.**

   The general form for the command is:

   as-install`/bin/asadmin deploy` *war-name*

   To deploy the `hello.war` sample, the command is:

   as-install`/bin/asadmin deploy` *sample-dir*`/hello.war`

2. **Access the `hello` application by typing the following URL in a browser window:**

   `http://localhost:8080/hello`

   The application's start page is displayed, and you are prompted to type your name.

   ```
   Hi, my name is Duke. What's yours?
   ```

3. **Type your name and click Submit.**

   The application displays a customized response, giving you a personal `Hello`.

See Also See `deploy(1)` for more information about the `deploy` command.

See *Sun GlassFish Enterprise Server v3 Prelude Application Deployment Guide* for more information about deploying applications from the command line.

▼ To List Deployed Applications From the Command Line

- **Use the `asadmin list-applications` command:**

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

▼ To Undeploy the Sample Application From the Command Line

- **Use the `asadmin undeploy` command.**

  The general form for the command is:

  as-install`/bin/asadmin undeploy` *war-name*

  For *war-name*, use the literal `hello`, not the full `hello.war` name.

  For the `hello.war` example, the command is:

  as-install`/bin/asadmin undeploy hello`

See Also See `undeploy(1)` for more information about the `undeploy` command.

Deploying an Application by Using the Administration Console

You can deploy applications from the graphical Administration Console.

▼ To Deploy the Sample Application From the Administration Console

Before You Begin The sample application must be available before you start this task. To download the sample, see "Obtaining a Sample Application" on page 8. At least one Enterprise Server domain must be started before you deploy the sample application.

1. **Open the Administration Console by typing the following URL in a browser window:**

   `http://localhost:4848`

2. **Click the Applications node in the tree on the left.**

   The node expands to display the Web Applications subnode.

3. **Click the Web Applications subnode.**

   The Web Applications page is displayed.

4. **Click Deploy.**

   The Deploy Enterprise Applications/Modules page is displayed.

5. **Select Packaged File to be Uploaded to the Server, and click Browse.**
6. **Navigate to the location in which you saved the `hello.war` sample, and then click Open.**
   You are returned to the Deploy Enterprise Applications/Modules page.
7. **Specify a description in the Description field, for example:**
   `hello`
8. **Accept the other default settings, and click OK.**
   You are returned to the Web Applications page.
9. **Run the sample application.**
   - **Click the `Launch` link on the Web Applications page.**
   - **Type the following URL in a browser window:**
     `http://localhost:8080/hello/`

See Also Refer to the Administration Console online help for further instructions.

▼ To View Deployed Applications in the Administration Console

1. **Open the Administration Console by typing the following URL in a browser window:**
   `http://localhost:4848`
2. **Click the Applications node in the tree on the left.**
   The node expands to display the Web Applications subnode.
3. **Click the Web Applications subnode.**
   The list of deployed web applications is displayed in the Deployed Web Applications table on the Web Applications page.

▼ To Undeploy the Sample Application From the Administration Console

1. **Open the Administration Console by typing the following URL in a browser window:**
   `http://localhost:4848`
2. **Click the Applications node in the tree on the left.**
   The node expands to display the Web Applications subnode.

3. **Click the Web Applications subnode.**
   The Web Applications page is displayed.
4. **Select the check box next to the applications you want to undeploy.**
5. **Remove or disable the application.**
   - **To remove the application, click Undeploy.**
   - **To disable the application, click Disable.**

Deploying an Application Automatically

To use automatic deployment, you can deploy applications by placing the applications in the *as-install*`/domains/`*domain-name*`/autodeploy` directory.

▼ To Deploy the Sample Application Automatically

Before You Begin The sample application must be available before you start this task. To download the sample, see "Obtaining a Sample Application" on page 8.

1. **Create a directory named** *as-install*`/domains/`*domain-name*`/autodeploy`
   domain-name is the name of the domain for which you want to configure automatic deployment. For this example, use the default `domain1` domain:
   as-install`/domains/domain1/autodeploy`
2. **Copy the application WAR file to the** *as-install*`/domains/`*domain-name*`/autodeploy` **directory.**
   `cp` *sample-dir*`/hello.war` *as-install*`/domains/`*domain-name*`/autodeploy`
   Enterprise Server automatically discovers and starts the application.

▼ To Undeploy the Sample Application

1. **Use the `cd` command to change to the domain's `autodeploy` directory.**
   `cd` *as-install*`/domains/`*domain-name*`/autodeploy`
2. **Use the `rm` command to delete the application.**
   `rm hello.war`

Removing Enterprise Server v3 Prelude Software

Uninstall the Enterprise Server Software after you have completed using this guide, if you no longer want to use the software.

▼ To Remove Enterprise Server Software

Before You Begin Stop all Enterprise Server processes that are running.

1. **Change to the directory where Enterprise Server v3 Prelude is installed.**
   The default installation directory is *user's-home-directory*`/glassfishv3-prelude`.
2. **Run the uninstallation command.**
   - **Solaris, Linux or MacOS X systems: From the command line, type the following command:**
     `./uninstall.sh`
   - **Windows systems: Double-click the** `uninstall.exe` **file.**
3. **Examine the contents of your directories to verify that the Enterprise Server v3 Prelude software is removed.**

For More Information

This section provides links to commonly used resources in the following areas:

- "GlassFish Communities" on page 13
- "Development Tools" on page 14
- "Scripting Languages" on page 14
- "Product Documentation" on page 14
- "Tutorials" on page 15
- "User Forum" on page 15

Many other add-on components for Enterprise Server v3 Prelude are available through Update Tool.

GlassFish Communities

- GlassFish Wiki (`http://wiki.glassfish.java.net/`): Open source development community site that provides a wide range of topics related to Enterprise Server.

- GlassFish Documentation (`https://glassfish.dev.java.net/javaee5/docs/DocsIndex.html`) project: Open source documentation community site that provides details about Enterprise Server documentation.

Development Tools

- NetBeans™ 6.5: An integrated development environment and application platform for web, enterprise, desktop, and mobile applications. Download NetBeans IDE 6.5 with GlassFish™ Application Server and MySQL™ Community Server from NetBeans IDE Download (`http://www.netbeans.org`) page.
- Eclipse (`https://glassfishplugins.dev.java.net`): A development environment that provides a framework, tools, and runtime for deploying and managing software.

Scripting Languages

- JRuby and Rails (`http://wiki.glassfish.java.net/Wiki.jsp?page=JRuby`): A scripting language and a framework for developing web applications
- Grails (`http://wiki.glassfish.java.net/Wiki.jsp?page=GrailsGettingStarted`): A web application framework that leverages the Groovy programming language and complements Java web development
- *Getting Started With Project jMaki for Sun GlassFish Enterprise Server v3 Prelude*: A framework for creating Ajax web applications
- Scala/Lift (`http://wiki.glassfish.java.net/Wiki.jsp?page=GettingStartedWithLiftOnGlassFish`): A framework for writing secure, scalable and high performance web applications that are easy to maintain

Product Documentation

- *Sun GlassFish Enterprise Server v3 Prelude Release Notes*: Recent information, limitations, and tips for installing and working with Enterprise Server.
- Enterprise Server documentation (`http://docs.sun.com/coll/1343.7`): Collection of guides that document Enterprise Server features and functions.
- Enterprise Server Screencasts (`http://wiki.glassfish.java.net/Wiki.jsp?page=Screencasts`): Collection of video recordings that demonstrate numerous features and examples for working with Enterprise Server and related projects.

- Enterprise Server FAQs (`http://wiki.glassfish.java.net/Wiki.jsp?page=GlassFishFAQIndex`): Frequently asked questions covering various Enterprise Server topics.

Tutorials

- Java EE 5 Tutorial (`http://java.sun.com/javaee/5/docs/tutorial/doc/`): Instructions, examples, and sample code for working with all Java platform core technologies.

User Forum

- Glass Fish community (`http://forums.java.net/jive/forum.jspa?forumID=56`): Public online discussions that provide community support and tips for working with Enterprise Server.