



GlassFish Server Open Source Edition

Installation Guide

Release 4.0

May 2013

This book contains instructions for installing and
uninstalling GlassFish Server Open Source Edition software.

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Contents

Preface	vii
1 Installing GlassFish Server 4.0	
Installation Requirements	1-1
Javassist Library License Notice	1-1
Installation Files for GlassFish Server 4.0	1-8
GlassFish Server Download Locations	1-8
GlassFish Server Installation Methods.....	1-8
Choosing an Installation Method	1-9
GlassFish Server ZIP Files.....	1-11
GlassFish Server Self-Extracting Bundles.....	1-11
Installing GlassFish Server From a ZIP File	1-12
To Install GlassFish Server Using the ZIP File.....	1-12
Installing GlassFish Server From a Self-Extracting Bundle	1-13
To Install GlassFish Server Using the Self-Extracting File	1-13
Performing a Silent Mode Installation	1-16
Creating the Installation Answer File	1-16
Reviewing the Installation Answer File.....	1-19
Installing in Silent Mode	1-21
Installation Command-Line Options	1-22
2 Uninstalling GlassFish Server 4.0	
Removing a GlassFish Server Installation	2-1
To Uninstall GlassFish Server Software After a ZIP File Installation.....	2-1
To Uninstall GlassFish Server Software After a GUI-Mode Installation	2-2

List of Examples

1-1	Example Answer File.....	1-19
1-2	Answer File Template for GlassFish Server 4.0.....	1-20

List of Tables

1-1	GlassFish Server 4.0 Installation Methods	1-8
1-2	GlassFish Server Full Profile and Web Profile Features.....	1-10
1-3	GlassFish Server Downloadable ZIP Files	1-11
1-4	GlassFish Server Self-extracting Bundles	1-12

Preface

This document contains instructions for installing and uninstalling GlassFish Server Open Source Edition 4.0 software.

This preface contains information about and conventions for the entire GlassFish Server Open Source Edition (GlassFish Server) documentation set.

GlassFish Server 4.0 is developed through the GlassFish project open-source community at <http://glassfish.java.net/>. The GlassFish project provides a structured process for developing the GlassFish Server platform that makes the new features of the Java EE platform available faster, while maintaining the most important feature of Java EE: compatibility. It enables Java developers to access the GlassFish Server source code and to contribute to the development of the GlassFish Server. The GlassFish project is designed to encourage communication between Oracle engineers and the community.

The following topics are addressed here:

- [GlassFish Server Documentation Set](#)
- [Related Documentation](#)
- [Typographic Conventions](#)
- [Symbol Conventions](#)
- [Default Paths and File Names](#)
- [Documentation, Support, and Training](#)
- [Searching Oracle Product Documentation](#)
- [Documentation Accessibility](#)

GlassFish Server Documentation Set

The GlassFish Server documentation set describes deployment planning and system installation. For an introduction to GlassFish Server, refer to the books in the order in which they are listed in the following table.

Book Title	Description
<i>Release Notes</i>	Provides late-breaking information about the software and the documentation and includes a comprehensive, table-based summary of the supported hardware, operating system, Java Development Kit (JDK), and database drivers.
<i>Quick Start Guide</i>	Explains how to get started with the GlassFish Server product.

Book Title	Description
<i>Installation Guide</i>	Explains how to install the software and its components.
<i>Upgrade Guide</i>	Explains how to upgrade to the latest version of GlassFish Server. This guide also describes differences between adjacent product releases and configuration options that can result in incompatibility with the product specifications.
<i>Deployment Planning Guide</i>	Explains how to build a production deployment of GlassFish Server that meets the requirements of your system and enterprise.
<i>Administration Guide</i>	Explains how to configure, monitor, and manage GlassFish Server subsystems and components from the command line by using the <code>asadmin</code> utility. Instructions for performing these tasks from the Administration Console are provided in the Administration Console online help.
<i>Security Guide</i>	Provides instructions for configuring and administering GlassFish Server security.
<i>Application Deployment Guide</i>	Explains how to assemble and deploy applications to the GlassFish Server and provides information about deployment descriptors.
<i>Application Development Guide</i>	Explains how to create and implement Java Platform, Enterprise Edition (Java EE platform) applications that are intended to run on the GlassFish Server. These applications follow the open Java standards model for Java EE components and application programmer interfaces (APIs). This guide provides information about developer tools, security, and debugging.
<i>Embedded Server Guide</i>	Explains how to run applications in embedded GlassFish Server and to develop applications in which GlassFish Server is embedded.
<i>High Availability Administration Guide</i>	Explains how to configure GlassFish Server to provide higher availability and scalability through failover and load balancing.
<i>Performance Tuning Guide</i>	Explains how to optimize the performance of GlassFish Server.
<i>Troubleshooting Guide</i>	Describes common problems that you might encounter when using GlassFish Server and explains how to solve them.
<i>Error Message Reference</i>	Describes error messages that you might encounter when using GlassFish Server.
<i>Reference Manual</i>	Provides reference information in man page format for GlassFish Server administration commands, utility commands, and related concepts.
<i>Message Queue Release Notes</i>	Describes new features, compatibility issues, and existing bugs for Open Message Queue.
<i>Message Queue Technical Overview</i>	Provides an introduction to the technology, concepts, architecture, capabilities, and features of the Message Queue messaging service.
<i>Message Queue Administration Guide</i>	Explains how to set up and manage a Message Queue messaging system.
<i>Message Queue Developer's Guide for JMX Clients</i>	Describes the application programming interface in Message Queue for programmatically configuring and monitoring Message Queue resources in conformance with the Java Management Extensions (JMX).
<i>Message Queue Developer's Guide for Java Clients</i>	Provides information about concepts and procedures for developing Java messaging applications (Java clients) that work with GlassFish Server.

Book Title	Description
<i>Message Queue Developer's Guide for C Clients</i>	Provides programming and reference information for developers working with Message Queue who want to use the C language binding to the Message Queue messaging service to send, receive, and process Message Queue messages.

Related Documentation

The following tutorials explain how to develop Java EE applications:

- Your First Cup: An Introduction to the Java EE Platform (<http://docs.oracle.com/javaee/7/firstcup/doc/>). For beginning Java EE programmers, this short tutorial explains the entire process for developing a simple enterprise application. The sample application is a web application that consists of a component that is based on the Enterprise JavaBeans specification, a JAX-RS web service, and a JavaServer Faces component for the web front end.
- The Java EE 7 Tutorial (<http://docs.oracle.com/javaee/7/tutorial/doc/>). This comprehensive tutorial explains how to use Java EE 7 platform technologies and APIs to develop Java EE applications.

Javadoc tool reference documentation for packages that are provided with GlassFish Server is available as follows.

- The API specification for version 7 of Java EE is located at <http://docs.oracle.com/javaee/7/api/>.
- The API specification for GlassFish Server 4.0, including Java EE 7 platform packages and nonplatform packages that are specific to the GlassFish Server product, is located at <http://glassfish.java.net/nonav/docs/v3/api/>.

Additionally, the Java EE Specifications (<http://www.oracle.com/technetwork/java/javaee/tech/index.html>) might be useful.

For information about creating enterprise applications in the NetBeans Integrated Development Environment (IDE), see the NetBeans Documentation, Training & Support page (<http://www.netbeans.org/kb/>).

For information about the Java DB database for use with the GlassFish Server, see the Java DB product page (<http://www.oracle.com/technetwork/java/javadb/overview/index.html>).

The Java EE Samples project is a collection of sample applications that demonstrate a broad range of Java EE technologies. The Java EE Samples are bundled with the Java EE Software Development Kit (SDK) and are also available from the Java EE Samples project page (<http://glassfish-samples.java.net/>).

Typographic Conventions

The following table describes the typographic changes that are used in this book.

Typeface	Meaning	Example
AaBbCc123	The names of commands, files, and directories, and onscreen computer output	Edit your <code>.login</code> file. Use <code>ls a</code> to list all files. <code>machine_name% you have mail.</code>
AaBbCc123	What you type, contrasted with onscreen computer output	<code>machine_name% su</code> Password:
AaBbCc123	A placeholder to be replaced with a real name or value	The command to remove a file is <code>rm filename</code> .
AaBbCc123	Book titles, new terms, and terms to be emphasized (note that some emphasized items appear bold online)	Read Chapter 6 in the <i>User's Guide</i> . A <i>cache</i> is a copy that is stored locally. Do <i>not</i> save the file.

Symbol Conventions

The following table explains symbols that might be used in this book.

Symbol	Description	Example	Meaning
[]	Contains optional arguments and command options.	<code>ls [-l]</code>	The <code>-l</code> option is not required.
{ }	Contains a set of choices for a required command option.	<code>-d {y n}</code>	The <code>-d</code> option requires that you use either the <code>y</code> argument or the <code>n</code> argument.
\${ }	Indicates a variable reference.	<code>\${com.sun.javaRoot}</code>	References the value of the <code>com.sun.javaRoot</code> variable.
-	Joins simultaneous multiple keystrokes.	Control-A	Press the Control key while you press the A key.
+	Joins consecutive multiple keystrokes.	Ctrl+A+N	Press the Control key, release it, and then press the subsequent keys.
>	Indicates menu item selection in a graphical user interface.	File > New > Templates	From the File menu, choose New. From the New submenu, choose Templates.

Default Paths and File Names

The following table describes the default paths and file names that are used in this book.

Placeholder	Description	Default Value
<i>as-install</i>	Represents the base installation directory for GlassFish Server. In configuration files, <i>as-install</i> is represented as follows: <code>\${com.sun.aas.installRoot}</code>	Installations on the Oracle Solaris operating system, Linux operating system, and Mac OS operating system: <code>user's-home-directory/glassfish4/glassfish</code> Installations on the Windows operating system: <code>SystemDrive:\glassfish4\glassfish</code>

Placeholder	Description	Default Value
<i>as-install-parent</i>	Represents the parent of the base installation directory for GlassFish Server.	Installations on the Oracle Solaris operating system, Linux operating system, and Mac operating system: <i>user's-home-directory/glassfish4</i> Installations on the Windows operating system: <i>SystemDrive:\glassfish4</i>
<i>domain-root-dir</i>	Represents the directory in which a domain is created by default.	<i>as-install/domains/</i>
<i>domain-dir</i>	Represents the directory in which a domain's configuration is stored. In configuration files, <i>domain-dir</i> is represented as follows: <code>\${com.sun.aas.instanceRoot}</code>	<i>domain-root-dir/domain-name</i>
<i>instance-dir</i>	Represents the directory for a server instance.	<i>domain-dir/instance-name</i>

Documentation, Support, and Training

The Oracle web site provides information about the following additional resources:

- Documentation (<http://docs.oracle.com/>)
- Support (<http://www.oracle.com/us/support/index.html>)
- Training (<http://education.oracle.com/>)

Searching Oracle Product Documentation

Besides searching Oracle product documentation from the Oracle Documentation (<http://docs.oracle.com/>) web site, you can use a search engine by typing the following syntax in the search field:

`search-term site:oracle.com`

For example, to search for "broker," type the following:

`broker site:oracle.com`

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Installing GlassFish Server 4.0

This chapter provides instructions for installing GlassFish Server Open Source Edition 4.0 software on Solaris, Linux, Mac OS X, and Windows systems.

The following topics are addressed here:

- [Installation Requirements](#)
- [Installation Files for GlassFish Server 4.0](#)
- [Installing GlassFish Server From a ZIP File](#)
- [Installing GlassFish Server From a Self-Extracting Bundle](#)
- [Performing a Silent Mode Installation](#)
- [Installation Command-Line Options](#)

Installation Requirements

Before installing GlassFish Server Open Source Edition 4.0, ensure that your system meets the requirements listed in "Hardware and Software Requirements" in *GlassFish Server Open Source Edition Release Notes*. If necessary, download and install the required JDK software. Problems are likely to arise if you attempt to install on a platform that is not supported or on a system that in some other way does not meet release requirements. Also see "Known Issues" in *GlassFish Server Open Source Edition Release Notes* for known issues related to installation.

- On Solaris, Linux, and Windows systems, JDK software is available from the Java SE downloads page (<http://www.oracle.com/technetwork/java/javase/downloads/index.html>).
- For Mac OS X systems, GlassFish Server uses the JDK that is part of the Macintosh operating system. If necessary, obtain the required JDK version from the Mac OS X Updates site (<http://support.apple.com/downloads/>).

Javassist Library License Notice

You are receiving a copy of the Javassist (Java Programming Assistant) Library in source form at

<http://repo1.maven.org/maven2/org/javassist/javassist/3.14.0-GA/javassist-3.14.0-GA-sources.jar> and in object code form in the jar file `glassfish/modules/weld-osgi-bundle.jar` included with the distribution. The terms of the Oracle license do NOT apply to the Javassist (Java Programming Assistant) program; it is licensed under the following license, separately from the Oracle

programs you receive. If you do not wish to install this program, you may choose to not proceed with the installation of Oracle GlassFish Server.

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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking

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We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange. If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications. You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.) b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with. c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution. d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place. e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy. For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system

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Installation Files for GlassFish Server 4.0

The following topics are addressed here:

- [GlassFish Server Download Locations](#)
- [GlassFish Server Installation Methods](#)
- [Choosing an Installation Method](#)
- [GlassFish Server ZIP Files](#)
- [GlassFish Server Self-Extracting Bundles](#)

GlassFish Server Download Locations

Installation files for GlassFish Server Open Source Edition 4.0 are available by download from the GlassFish Server Downloads (<http://glassfish.java.net/public/downloadsindex.html>) page.

GlassFish Server Open Source Edition 4.0 is also part of the Java EE SDK distributions. The SDK distributions are available from the Java EE downloads page (<http://www.oracle.com/technetwork/java/javaee/downloads/index.html>) and are not described in this document.

GlassFish Server Installation Methods

[Table 1–1](#) lists the various GlassFish Server Open Source Edition installation methods. The table also provides links to installation instructions for each method.

Note: Before performing any GlassFish Server installation, ensure that your environment adheres to the JDK guidelines in "Paths and Environment Settings for the JDK Software" in *GlassFish Server Open Source Edition Release Notes*.

Table 1–1 *GlassFish Server 4.0 Installation Methods*

Installation Method	Installation Instructions
Multi-platform ZIP file	Installing GlassFish Server From a ZIP File.
Solaris, Linux, Mac OS, UNIX, or Windows self-extracting bundle in graphical mode	Installing GlassFish Server From a Self-Extracting Bundle.

Table 1–1 (Cont.) GlassFish Server 4.0 Installation Methods

Installation Method	Installation Instructions
Solaris, Linux, Mac OS, UNIX, or Windows self-extracting bundle in silent mode	Performing a Silent Mode Installation

Each of the installation methods listed in [Table 1–1](#) also let you choose between installing the Full Platform or the Web Profile. These two distributions are explained in the next section.

Choosing an Installation Method

There are two general sets of questions you should consider when deciding which GlassFish Server 4.0 installation method to use.

- [ZIP Package or Self-Extracting Bundle?](#)
- [Full Platform or Web Profile Distribution?](#)

ZIP Package or Self-Extracting Bundle?

The relative features and strengths of the GlassFish Server ZIP packages and self-extracting bundles are listed below.

- **ZIP Package**
 - Is simpler to install, but provides no configuration options during the installation
 - Any additional configurations must be performed manually, after installation
 - Includes Update Tool and pkg utility installer stubs, which can be used to install those utilities after GlassFish Server installation
 - If uninstallation is desired, product must be uninstalled manually
 - Product downloads are roughly 25%-30% larger than the analogous self-extracting bundles
- **Self-Extracting Bundle**
 - Provides a GUI-based installation wizard
 - The installation wizard can be used again after the initial installation to perform additional configuration tasks
 - Can be used to perform Silent Mode installation, which is useful for performing consistent script-based installations on multiple server machines
 - Provides the option to install the full Update Tool and pkg utility at installation time
 - If uninstallation is required, a GUI-based uninstaller is provided

Full Platform or Web Profile Distribution?

Each of the installation methods listed in [Table 1–1](#) also let you choose to install either the GlassFish Server Full Platform or Web Profile distribution. [Table 1–2](#) lists the features available in each of these two distributions. Note that some of these features are value-adds, and are not required by the Java EE specification.

Table 1–2 GlassFish Server Full Profile and Web Profile Features

Feature	Full Platform	Web Profile
Java Platform, Enterprise Edition 7	X	X
EJB 3.1 Lite (Support for Local Container only)	X	X
JTS/JTA 1.1 **	X	X
OSGi-based microkernel	X	X
Java Web Technologies (Servlet 3.0, JSP 2.2, JSF 2.0, JSTL 1.2, EL 2.2)	X	X
Grizzly/Comet	X	X
JPA 2.0, (EclipseLink), JDBC Connection Pooling	X	X
JDBC 4.0	X	X
JavaDB 10.5.3	X	X
Web Administration Console and CLI	X	X
Rapid Redeployment (Maintain session state on application redeploy)	X	X
OMG CORBA APIs 3.0	X	X
Debugging Support for Other Languages 1.0	X	X
Common Annotations for Java 1.1	X	X
Dependency Injection for Java 1.0	X	X
Managed Beans 1.0	X	X
Interceptors 1.1	X	X
Contexts and Dependency Injection for Java 1.0 (CDI, ex-Web Beans)	X	X
Bean Validation 1.0	X	X
JAX-RS 1.1 (Jersey)	X	X
EJB 3.1 Full API (Support for Remote Container)	X	-
Java EE Connector Architecture 1.6	X	-
JAX-WS 2.2	X	-
JAXB 2.2	X	-
Implementing Java Web Services 1.3	X	-
Web Services Metadata for the Java Platform 2.1	X	-
JMS 1.1	X	-
JavaMail 1.4	X	-
JACC 1.4	X	-
Java Authentication Service Provider Interface for Containers 1.1	X	-
Java EE Application Deployment 1.2	X	-
J2EE Management 1.1	X	-
JAX-RPC 1.1	X	-
JAXR 1.0	X	-
CORBA 3.0.0	X	*

Table 1–2 (Cont.) GlassFish Server Full Profile and Web Profile Features

Feature	Full Platform	Web Profile
Metro	X	-

* The Full Java EE Platform contains the complete CORBA package. The OMG CORBA v3.0 APIs are available in the Java EE Web Profile.

** Transaction propagation not supported.

Note: Regardless of whether you choose the Full Platform or Web Profile distribution, you can add or removed packages after installation by using the Update Tool or pkg utility. See "Extending and Updating GlassFish Server" in *GlassFish Server Open Source Edition Administration Guide* for more information.

GlassFish Server ZIP Files

The GlassFish Server Open Source Edition 4.0 multi-platform ZIP files are compatible with Solaris, Linux, Mac OS, UNIX, and Windows operating systems. See [GlassFish Server Download Locations](#) for a list of download locations.

[Table 1–3](#) lists the available ZIP file downloads.

Note: In all cases, the *-ml.zip bundles in the table are multilingual versions of the product.

Table 1–3 GlassFish Server Downloadable ZIP Files

ZIP File	Description
glassfish-4.0.zip	Full Platform distribution of GlassFish Server Open Source Edition
glassfish-4.0-ml.zip	
glassfish-4.0-web.zip	Web Profile distribution GlassFish Server Open Source Edition
glassfish-4.0-web-ml.zip	

GlassFish Server Self-Extracting Bundles

The GlassFish Server Open Source Edition 4.0 self-extracting bundles are platform-specific, and are available for Solaris, Linux, Mac OS, UNIX, and Windows operating systems. See [GlassFish Server Download Locations](#) for a list of download locations.

[Table 1–4](#) lists the available self-extracting bundles.

Note: In all cases, the *-ml.* bundles in the table are multilingual versions of the product.

Table 1–4 GlassFish Server Self-extracting Bundles

Self-Extracting Bundle	Description
glassfish-4.0-unix.sh glassfish-4.0-windows.exe glassfish-4.0-unix-ml.sh glassfish-4.0-windows-ml.exe	Full Platform distribution of GlassFish Server Open Source Edition for Solaris, Linux, and Mac OS X systems (*-unix.sh) and Windows (*-windows.exe)
glassfish-4.0-web-unix.sh glassfish-4.0-web-windows.exe glassfish-4.0-web-unix-ml.sh glassfish-4.0-web-windows-ml.exe	Web Profile distribution GlassFish Server Open Source Edition for Solaris, Linux, and Mac OS X systems (*-unix.sh) and Windows (*-windows.exe)

Installing GlassFish Server From a ZIP File

This section describes how to install GlassFish Server Open Source Edition 4.0 using the multi-platform ZIP file. GlassFish Server is installed by unzipping the file in the installation directory of your choice.

Note: It is not possible to specify any GlassFish Server configuration options during a ZIP file installation. Any configuration changes, such as creating domains, clusters, and server instances, must be made manually after installation. If you prefer to make such changes during the GlassFish Server installation process, or if you prefer to use the GUI-based installation wizard, follow the instructions in [Installing GlassFish Server From a Self-Extracting Bundle](#).

To Install GlassFish Server Using the ZIP File

Before You Begin

Ensure that your system meets the requirements listed in "Hardware and Software Requirements" in *GlassFish Server Open Source Edition Release Notes*.

Also see "Known Issues" in *GlassFish Server Open Source Edition Release Notes* for known issues related to installation.

1. Download the desired GlassFish Server 4.0 ZIP file.

See [GlassFish Server Download Locations](#) for a list of download locations. See [Table 1–3](#) for a list of available ZIP files.

2. Change to the directory where you downloaded the ZIP file.
3. Unzip the file.

- **Solaris, Linux, and Mac OS X systems:**

```
unzip zip-file-name
```

zip-file-name is the name of the file that you downloaded.

For example:

```
glassfish-4.0.zip
```

- **Windows systems:**

Unzip using your favorite file compression utility.

GlassFish Server 4.0 is extracted into a new `glassfish4` directory under your current directory. This `glassfish4` directory is referred to throughout the GlassFish Server documentation set as *as-install-parent*.

4. Start GlassFish Server using the instructions in the *GlassFish Server Open Source Edition Quick Start Guide*.

The guide explains how to perform basic tasks such as starting the server, accessing the Administration Console, and deploying a sample application.

Installing GlassFish Server From a Self-Extracting Bundle

This section describes how to install GlassFish Server Open Source Edition 4.0 software using one of the self-extracting installation bundles. Running any of the self-extracting bundles automatically launches the GUI-based GlassFish Server installation wizard.

The following topics are addressed here:

- [To Install GlassFish Server Using the Self-Extracting File](#)

Note: Console installation is not supported in GlassFish Server Open Source Edition 4.0. Silent mode installation is available, however. For more information, see [Performing a Silent Mode Installation](#).

To Install GlassFish Server Using the Self-Extracting File

Before You Begin

- When launching the self-extracting installer from the command-line, it possible to specify several command-line options that may be useful to you. See [Installation Command-Line Options](#) for more information.
- Ensure that your system meets the requirements listed in "Hardware and Software Requirements" in *GlassFish Server Open Source Edition Release Notes*.
- See "Known Issues" in *GlassFish Server Open Source Edition Release Notes* for known issues related to installation.

1. Download the desired GlassFish Server 4.0 bundle.

See [GlassFish Server Download Locations](#) for a list of download locations. See [Table 1-4](#) for a list of available self-extracting bundles.

2. Change to the directory where you downloaded the self-extracting file.

3. Start the installer.

- Solaris, Linux, and Mac OS X systems:

- a. If necessary, grant execute permissions to the self-extracting file:

```
chmod +x ./self-extracting-file-name
```

self-extracting-file-name is the name of the self-extracting file that you downloaded.

- b. At the command prompt, type:

```
sh ./self-extracting-file-name
```

For example, start the installer by typing the following:

```
glassfish-4.0-unix.sh
```

See [Installation Command-Line Options](#) for a list of command-line options you can specify here, if desired.

- Windows systems:

Double-click the executable .exe installation file.

For example, double-click:

```
glassfish-4.0-windows.exe
```

On Windows you can also start the installer by typing the file name at the command prompt.

Note: Additional setup options are available. See [Installation Command-Line Options](#).

If you are installing on a 64-bit Windows system, run the installer with the `-j` option pointing to a 64-bit JDK.

Depending on your user privileges and the version of Windows you are running, it may be necessary to run the installer as Administrator. In particular, if you will be configuring the domain as a Service as part of a Custom Installation (see next step) or after the installation, then you should run the installer as Administrator.

After starting the installer, the Introduction page is displayed. Use the Next button to move through the installation process.

4. Choose the Installation Type

- Typical Installation

Choose this option for application development purposes or non-production use only. This option installs the GlassFish Server binaries and creates a DAS.

- Custom Installation

The Custom Installation option is not supported in this release.

5. Specify where to install GlassFish Server.

The default installation directories are as follows:

- Solaris, Linux, and Mac OS X systems

```
user-home-directory/glassfish4
```

- Windows systems

```
SystemDrive\glassfish4
```

Make sure the directory you specify is empty before installing the product.

The default installation directory is referred to as *as-install-parent* throughout the GlassFish Server documentation.

6. Specify whether to install and enable Update Tool.

Update Tool is an administrative tool that enables you to install updates and add-on components to an existing GlassFish Server 4.0 installation. Update Tool can be installed during GlassFish Server installation or at a later time. For more information about Update Tool, see "Update Tool" in *GlassFish Server Open Source Edition Administration Guide*.

- If you are not installing Update Tool, deselect the Install Update Tool check box.
- If you are installing Update Tool and your system accesses the Internet through a proxy, specify the proxy host and proxy port.
- If you are installing Update Tool and do not require the automatic notifications of available updates after installation, deselect the Enable Update Tool check box.

Note: Update Tool differs from Upgrade Tool, which is used to migrate the configuration and deployed applications from an earlier version of GlassFish Server to the current version. For more information about Upgrade Tool, see the *GlassFish Server Open Source Edition Upgrade Guide*.

7. Review the Ready To Install selections and click Install to proceed with the installation.

A progress bar is displayed as the core GlassFish Server components are installed.

Note: If you choose to cancel the installation at this point, no GlassFish Server files will be installed, but the directory you specified for *as-install-parent* will remain. This directory can be deleted manually.

8. Review the Config Results page and click Next to proceed.

Tip: The configuration results panel presents the recently executed commands in the center section and this is selectable text. The text can be copied on to a script for future automated runs of such commands.

9. Review the Summary page and click Exit to exit the installer.

Installation information is captured in log files. The names of the files are *timestamp-install.log* and *timestamp-install-summary.html*. On Solaris, Linux, and Mac OS X systems, these files are generated by default in the */tmp* directory. On Windows systems, these files are generated in the *%TEMP%* directory.

10. Register your GlassFish Server product.

Follow the instructions on the registration screen to complete the registration process.

See Also

Familiarize yourself with the instructions in the *GlassFish Server Open Source Edition Quick Start Guide*. The guide explains how to perform basic tasks such as starting the server, accessing the Administration Console, and deploying a sample application.

Performing a Silent Mode Installation

This section describes how to install GlassFish Server Open Source Edition 4.0 using silent mode installation. Silent mode is a non-interactive installation based on user-defined parameters captured in an answer file. The answer file can be used later to install GlassFish Server on one or more systems.

Note: It is only possible to perform a silent installation using the **Typical Installation** path described in [To Install GlassFish Server Using the Self-Extracting File](#).

The following topics are addressed here:

- [Creating the Installation Answer File](#)
- [Reviewing the Installation Answer File](#)
- [Installing in Silent Mode](#)

Creating the Installation Answer File

The answer file forms the template for silent installation. The file is created when you use the dry-run (-n) option to start an interactive installation. In dry-run mode, actual installation does not take place.

During the interactive installation you can accept the default values presented or you can change them. Your input is collected and stored in the answer file, which is then used to install GlassFish Server. You can use the answer file as it is or you can modify the file before using it.

To Create the Installation Answer File

The installation wizard is used to create the answer file. Actual installation does not take place.

Before You Begin

- Remember that it is only possible to perform a silent installation using the **Typical Installation** path described in [To Install GlassFish Server Using the Self-Extracting File](#).
 - When launching the self-extracting installer from the command-line, it is possible to specify several command line options that may be useful to you. See [Installation Command-Line Options](#) for more information.
 - Ensure that your system meets the requirements listed in "Hardware and Software Requirements" in *GlassFish Server Open Source Edition Release Notes*.
 - See "Known Issues" in *GlassFish Server Open Source Edition Release Notes* for known issues related to installation.
1. Download the desired GlassFish Server 4.0 bundle.

See [GlassFish Server Download Locations](#) for a list of download locations. See [Table 1–4](#) for a list of available self-extracting bundles.

2. Change to the directory where you downloaded the self-extracting file.
3. Start the installer in dry-run mode.

- Solaris, Linux, and Mac OS X systems:

- a. If necessary, grant execute permissions to the self-extracting file:

```
chmod +x ./self-extracting-file-name
```

self-extracting-file-name is the name of the self-extracting file that you downloaded.

- b. At the command prompt, type:

```
self-extracting-file-name -n answer-file
```

answer-file is the name of the answer file you want to generate. If you do not include a path to the answer file, the file is created under the directory from which the installation program is run.

For example, start the installer in dry-run mode by typing the following:

```
glassfish-4.0-unix.sh -n 312-answer
```

See [Installation Command-Line Options](#) for a list of command-line options you can specify here, if desired.

- Windows systems:

- a. Open a Windows Command Prompt shell with Administrative privileges.

- b. At the command prompt, type:

```
self-extracting-file-name -n answer-file
```

answer-file is the name of the answer file you want to generate. If you do not include a path to the answer file, the file is created under the directory from which the installation program is run.

For example, start the installer in dry-run mode by typing the following:

```
glassfish-4.0-windows.exe -n 312-answer
```

See [Installation Command-Line Options](#) for a list of command-line options you can specify here, if desired.

Note: Additional setup options are available. See [Installation Command-Line Options](#).

If you are installing on a 64-bit Windows system, run the installer with the `-j` option pointing to a 64-bit JDK.

Depending on your user privileges and the version of Windows you are running, it may be necessary to run the installer as Administrator. In particular, if you will be configuring the domain as a Service as part of a Custom Installation (see next step) or after the installation, then you should run the installer as Administrator.

After starting the installer, the Introduction page is displayed. Use the Next button to move through the installation process.

4. Choose Typical Installation in the Installation Type screen.

It is not possible to use the Custom Installation path when generating an answer file for silent-mode installation.

5. Specify where to install GlassFish Server.

The default installation directories are as follows:

- Solaris, Linux, and Mac OS X systems

user-home-directory/glassfish4

- Windows systems

SystemDrive\glassfish4

Make sure the directory you specify is empty before installing the product.

The default installation directory is referred to as *as-install-parent* throughout the GlassFish Server documentation.

6. Specify whether to install and enable Update Tool.

Update Tool is an administrative tool that enables you to install updates and add-on components to an existing GlassFish Server 4.0 installation. Update Tool can be installed during GlassFish Server installation or at a later time. For more information about Update Tool, see "Update Tool" in *GlassFish Server Open Source Edition Administration Guide*.

- If you are not installing Update Tool, deselect the Install Update Tool check box.
- If you are installing Update Tool and your system accesses the Internet through a proxy, specify the proxy host and proxy port.
- If you are installing Update Tool and do not require the automatic notifications of available updates after installation, deselect the Enable Update Tool check box.

Note: Update Tool differs from Upgrade Tool, which is used to migrate the configuration and deployed applications from an earlier version of GlassFish Server to the current version. For more information about Upgrade Tool, see the *GlassFish Server Open Source Edition Upgrade Guide*.

7. Review the Ready To Install selections and click Install to proceed with the installation.

A progress bar is displayed as the answer file is created and an empty *as-install-parent* directory is created.

Tip: The configuration results panel presents the recently executed command in the center section and this is a selectable text. The text can be copied on to a script for future automated runs of such commands.

8. Review the summary page and click Exit to exit the installer.

Installation information is captured in log files. The names of the files are *timestamp*-install.log and *timestamp*-install-summary.html. On Solaris, Linux, and Mac OS X systems, these files are generated by default in the /tmp directory. On Windows systems, these files are generated in the %TEMP% directory.

9. Proceed to the instructions in [Reviewing the Installation Answer File](#).

Reviewing the Installation Answer File

The answer file generated using the procedure described in [Creating the Installation Answer File](#) provides a number of system-specific parameters as well as parameters that you selected during dry-run mode installation. Values for some parameters can be edited as described in [To Edit the Answer File](#).

The following example shows the contents of an answer file that was created during a dry-run mode installation. All default values were accepted during the installation.

Note: The following example contains a complete answer file, where most of the parameters are not used in GlassFish Server 4.0. For an answer file template that contains only the elements required to perform a typical installation, see the [Example 1-2](#).

Example 1-1 Example Answer File

```
#openInstaller Dry Run Answer File. This File can be used as input to the
openInstaller engine using the -a option.
#Sun Jan 16 16:56:14 EST 2011
InstallType.Option.INSTALL_AND_CONFIG=INSTALL_AND_CONFIG
UpdateTool.Configuration.PROXY_PORT=
SOAccountCreation.accountinfo.FIRSTNAME=
ClusteredInstance.Configuration.CLUSTER_NAME=c1
Domain.Configuration.ADMIN_PASSWORD_REENTER=
StandaloneInstance.Configuration.SERVER_HOST_NAME=localhost
RegistrationOptions.regoptions.USE_EXISTINGACCT=USE_EXISTINGACCT
Domain.Configuration.ADMIN_PASSWORD=
UpdateTool.Configuration.BOOTSTRAP_UPDATETOOL=true
RegistrationOptions.regoptions.USERNAME=
StandaloneInstance.Configuration.INSTANCE_NAME=instance1
ClusteredInstance.Configuration.INSTANCE_NAME=instance1
SOAccountCreation.accountinfo.EMAIL=
ClusteredInstance.Configuration.SERVER_ADMIN_PORT=4848
Domain.Configuration.CREATE_SERVICE=false
ClusteredInstance.Configuration.CREATE_CLUSTER=false
InstallUserType.Option.ADVANCED_USER=ADVANCED_USER
UpdateTool.Configuration.ALLOW_UPDATE_CHECK=true
SOAccountCreation.accountinfo.LASTNAME=
RegistrationOptions.regoptions.CREATE_NEWACCT=CREATE_NEWACCT
JDKSelection.directory.HIDDEN_JDK=
SOAccountCreation.accountinfo.PASSWORD=
ConfigType.Option.CREATE_CLUSTEREDINSTANCE=CREATE_CLUSTEREDINSTANCE
JDKSelection.directory.JDK_LIST=
ClusteredInstance.Configuration.SERVER_HOST_NAME=localhost
SOAccountCreation.accountinfo.REENTERPASSWORD=
JDKSelection.directory.JDK_TYPED_IN_CHOICE=false
UpdateTool.Configuration.PROXY_HOST=
InstallType.Option.INSTALL_ONLY=INSTALL_ONLY
ConfigType.Option.CREATE_STANDALONEINSTANCE=CREATE_STANDALONEINSTANCE
Domain.Configuration.HTTP_PORT=8080
RegistrationOptions.regoptions.SKIP_REGISTRATION=SKIP_REGISTRATION
```

```
Domain.Configuration.SERVICE_NAME=domain1Service
ConfigType.Option.NO_CONFIGURATION=NO_CONFIGURATION
Domain.Configuration.ADMIN_USER=admin
JDKSelection.directory.JDK_FROM_LIST_CHOICE=false
RegistrationOptions.regoptions.USERPASSWORD=
SOAccountCreation.accountinfo.COUNTRY=
InstallHome.directory.INSTALL_HOME=C:\\glassfish4
Domain.Configuration.ADMIN_PORT=4848
SOAccountCreation.accountinfo.COMPANYNAME=
InstallUserType.Option.BASIC_USER=BASIC_USER
ConfigType.Option.CREATE_DOMAIN=CREATE_DOMAIN
InstallType.Option.CONFIG_ONLY=CONFIG_ONLY
Domain.Configuration.START_SERVER=false
Domain.Configuration.DOMAIN_NAME=domain1
ClusteredInstance.Configuration.DOMAIN_NAME=domain1
JDKSelection.directory.JDK_TYPE_IN=
StandaloneInstance.Configuration.SERVER_ADMIN_PORT=4848
SOAccountCreation.accountinfo.COUNTRY_DROP_DOWN=
RegistrationOptions.regoptions.DUMMY_PROP=
```

Example 1–2 Answer File Template for GlassFish Server 4.0

#openInstaller Dry Run Answer File. This File can be used as input to the openInstaller engine using the -a option.

```
Domain.Configuration.ADMIN_PASSWORD=
Domain.Configuration.ADMIN_PASSWORD_REENTER=
Domain.Configuration.ADMIN_PORT=4848
Domain.Configuration.ADMIN_USER=admin
Domain.Configuration.DOMAIN_NAME=domain1
Domain.Configuration.HTTP_PORT=8080
InstallHome.directory.INSTALL_HOME=C:\\glassfish4
UpdateTool.Configuration.ALLOW_UPDATE_CHECK=true
UpdateTool.Configuration.BOOTSTRAP_UPDATE_TOOL=true
UpdateTool.Configuration.PROXY_HOST=
UpdateTool.Configuration.PROXY_PORT=8888
```

To Edit the Answer File

Some values in the answer file can be changed if desired. Such editing is strictly optional.

Before You Begin

Create the answer file as described in [To Create the Installation Answer File](#).

1. Review the answer file.
Review the values that will be used for silent installation.
2. Edit the answer file.
Only the following default values can be changed:

InstallHome.directory.INSTALL_HOME=*as-install-parent*

Provide another directory name for GlassFish Server 4.0 installation files.

Domain.Configuration.ADMIN_PASSWORD=

Provide a password for access to the Administration Console. This password is case sensitive.

Domain.Configuration.ADMIN_PASSWORD_REENTER=

Provide the password confirmation for Administration Console. Make sure that this matches the value for `Domain.Configuration.ADMIN_PASSWORD`.

Domain.Configuration.ADMIN_PORT=4848

Assign another port number to the Administration Console.

Domain.Configuration.ADMIN_USER=admin

Provide another user name for the administrator. This name is case sensitive.

Domain.Configuration.HTTP_Port=8080

Assign another port number to HTTP connections.

UpdateTool.Configuration.ALLOW_UPDATE_CHECK=true

Change value to `false` if you do not want Update Tool notifications.

UpdateTool.Configuration.BOOTSTRAP_UPDATE=true

Change value to `false` if you do not want to install the standalone Update Tool.

UpdateTool.Configuration.PROXY_HOST=

Assign a name to the proxy host.

UpdateTool.Configuration.PROXY_PORT=

Assign a port number to the proxy host.

Note: Parameters not listed are system specific. Do not change system-specific parameters. Doing so will cause problems with the installation program.

Installing in Silent Mode

The non-interactive installation program reads the specified answer file, checks for adequate disk space, and installs GlassFish Server based on the data in the answer file.

To Install Using Silent Mode

Before You Begin

- Create the answer file as described in [To Create the Installation Answer File](#). Verify that the parameters in the answer file are set to the values that you want to use for silent installation, as described in [Reviewing the Installation Answer File](#).
- Answer files generated using the GlassFish Server 4.0 installer are not backward-compatible with earlier versions of GlassFish Server including version 4.0.

1. Navigate to the directory that contains the self-extracting installer file and the installation answer file.
2. From the command line, type:

```
self-extracting-file-name -a answer-file -s
```

self-extracting-file-name is the name of the file that you downloaded during [Creating the Installation Answer File](#).

-a *answer-file*

The name of the answer file that was generated according to the instructions in [Creating the Installation Answer File](#). Ensure that you provide the complete path to the answer file.

-s

Runs the installer in silent mode.

For example:

```
glassfish-4.0-unix.sh -a 312-answer -s
```

When the prompt is returned, the silent installation is complete and the installation components are installed on your system.

Next Steps

Familiarize yourself with the instructions in the *GlassFish Server Open Source Edition Quick Start Guide*. The guide explains how to perform basic tasks such as starting the server, accessing the Administration Console, and deploying a sample application.

Installation Command-Line Options

The following options can be used when you run the installation program from the command line using the self-extracting installation file (.sh or .exe). Specify the desired options after typing the installation file name at the command prompt.

For example:

```
glassfish-4.0-unix.sh -a 312-answer -l log-directory -s
```

The options are as follows:

-a *answer-file*

Run the installation program in silent mode using the answer file specified. Use this option with the -s option.

-l *log-directory*

Write log information to this directory.

-q

Set logging level to WARNING.

-v

Runs the installation program in verbose mode, which can be useful for troubleshooting. Also sets the logging level to FINEST.

-s

Run the installation program in silent mode.

-j *javahome*

Use this directory for the JDK software installation.

-n *answer-file*

Run the installation program in trial mode to generate the answer file for silent mode installation.

-h OR -help

Display the help message listing these options.

Uninstalling GlassFish Server 4.0

This chapter describes how to uninstall GlassFish Server Open Source Edition 4.0 software.

Removing a GlassFish Server Installation

This section describes how to remove GlassFish Server Open Source Edition 4.0 software.

The following topics are addressed here:

- [To Uninstall GlassFish Server Software After a ZIP File Installation](#)
- [To Uninstall GlassFish Server Software After a GUI-Mode Installation](#)

To Uninstall GlassFish Server Software After a ZIP File Installation

This procedure describes how to uninstall GlassFish Server software that was installed using a ZIP file, as described in [Installing GlassFish Server From a ZIP File](#).

Before You Begin

Stop all domains and other related processes, including command prompts using the installation directory or its subdirectories, the Update Tool notifier process if present, and any applications using Java SE files.

To stop domains, use the `asadmin stop-domain` command. For more information about stopping a domain, see "To Stop a Domain" in *GlassFish Server Open Source Edition Administration Guide*.

To stop the Update Tool notifier process, use the `updatetool --notifier --shutdown` command, executed from `as-install-parent/bin`.

If orphaned processes remain, identify and terminate the processes as follows:

- **Solaris, Linux, and Mac OS X systems:**
Use the `ps -ef` command and terminate the processes using the `kill` command.
- **Windows systems:**
Use the Task Manager and terminate the processes.

Also see "Known Issues" in *GlassFish Server Open Source Edition Release Notes* for known issues related to uninstallation.

1. Save any files in the installation directory that you may want to keep.
2. Manually delete installation directory and all its contents.

To Uninstall GlassFish Server Software After a GUI-Mode Installation

This procedure describes how to uninstall GlassFish Server software that was installed using a self-extracting file, as described in [Installing GlassFish Server From a Self-Extracting Bundle](#).

During installation, a script for uninstalling GlassFish Server is placed in the installation directory. This section provides instructions for removing the software using this script. If you attempt to remove the software using another method, problems are likely to arise when you try to reinstall the same version of GlassFish Server or when you install a new version.

1. Stop all GlassFish Server domains and other related processes, including the following:
 - All domains, clusters, and instances
 - Command shells that may be active in the product installation directory or subdirectories
 - The GlassFish Server Update Tool Notifier process, if present
 - Any applications that are using Java SE files
 - a. To stop domains, use the `asadmin stop-domain` command.
For more information about stopping a domain, see "To Stop a Domain" in *GlassFish Server Open Source Edition Administration Guide*.
 - b. To stop the Update Tool Notifier process, use the `updatetool --notifier --shutdown` command, executed from `as-install-parent/bin`.
 - c. If orphaned processes remain, identify and terminate the processes as follows:
 - a. **Solaris, Linux, and Mac OS X systems**
Use the `ps -ef` command and terminate the processes using the `kill` command.
 - b. **Windows systems**
Use the Task Manager and terminate the processes.
2. Navigate to the directory in which GlassFish Server 4.0 is installed.

Alternatively, if you are running on Windows and want to run the uninstaller from the Windows Start menu, you can skip this step and jump ahead to the next step.

The default installation directories are as follows:

- Solaris, Linux, and Mac OS X systems
`user-home-directory/glassfish4`
- Windows systems
`SystemDrive\glassfish4`

The default installation directory is referred to as *as-install-parent* throughout GlassFish Server documentation.

3. Start the uninstallation program and remove the software.
 - Solaris, Linux, and Mac OS X systems:
 - a. If necessary, grant execute permissions to the uninstall file.

```
chmod +x ./uninstall.sh
```

b. At the command prompt, type:

```
sh ./uninstall.sh
```

- Windows systems, from the Start menu (*recommended*):

Choose Start>Programs>GlassFish Server Open Source Edition>Uninstall.

- Windows systems, from the command line:

Double-click the `uninstall.exe` file.

On Windows you can also start the uninstaller by typing the file name at the command prompt.

Tip: There is a known issue on Windows 7 systems (Issue 12093), whereby uninstallation of GlassFish Server may fail because Windows cannot find the required JDK installation. The problem may occur when the Java binaries are not installed through a standard Java SDK installer. This problem does not occur when running the uninstaller from the Windows Start menu.

The workaround for this issue is to explicitly specify the location of the Java binaries when running the GlassFish Server `uninstall` utility from the command line. For example:

```
uninstall.exe -j "%JAVA_HOME%"
```

Note: To uninstall in silent (non-interactive) mode, use the `-s` option after the file name. For example: `./uninstall.sh -s` or `uninstall.exe -s`

4. Review the summary page that displays following uninstallation and click Exit to exit the uninstaller.

Uninstallation information is captured in log files. The names of the files are *timestamp-remove.log* and *timestamp-remove-summary.html*. On Solaris, Linux, and Mac OS X systems, these files are generated by default in the `/tmp` directory. On Windows systems, these files are generated in the `%TEMP%` directory.

5. Examine the contents of the remaining installation directories and remove any files or directories that you do not want.

Note: Not all GlassFish Server directories are automatically removed by the uninstallation program. Remove the remaining contents as desired, including hidden directories prefixed with a dot. It is safe to remove uninstallation and installation log files after you have examined them.
