

Eclipse GlassFish Server Installation Guide, Release 5.1

Table of Contents

Eclipse GlassFish Server	1
Preface	2
GlassFish Server Documentation Set	2
Related Documentation	4
Typographic Conventions	5
Symbol Conventions	5
Default Paths and File Names	6
1 Installing Eclipse GlassFish Server 5.1	8
Installation Requirements	8
Installation Files for GlassFish Server 5.1	17
Installing GlassFish Server From a ZIP File	21
2 Uninstalling GlassFish Server 5.0	23
Removing a GlassFish Server Installation	23

Eclipse GlassFish Server

Installation Guide

Release 5.1

Contributed 2018, 2019

This book contains instructions for installing and uninstalling Eclipse GlassFish Server software.

Eclipse GlassFish Server Installation Guide, Release 5.1

Copyright © 2010, 2019 Oracle and/or its affiliates. All rights reserved.

This program and the accompanying materials are made available under the terms of the Eclipse Public License v. 2.0, which is available at <http://www.eclipse.org/legal/epl-2.0>.

SPDX-License-Identifier: EPL-2.0

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

Preface



This documentation is part of the Java Enterprise Edition contribution to the Eclipse Foundation and is not intended for use in relation to Java Enterprise Edition or Oracle GlassFish. The documentation is in the process of being revised to reflect the new Jakarta EE branding. Additional changes will be made as requirements and procedures evolve for Jakarta EE. Where applicable, references to Java EE or Java Enterprise Edition should be considered references to Jakarta EE.

Please see the Title page for additional license information.

This document contains instructions for installing and uninstalling GlassFish Server Open Source Edition 5.0 software.

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

GlassFish Server 5.0 is developed through the GlassFish project open-source community at <https://javaee.github.io/glassfish/>. 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](#)

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
Release Notes	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.
Quick Start Guide	Explains how to get started with the GlassFish Server product.
Installation Guide	Explains how to install the software and its components.
Upgrade Guide	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.
Deployment Planning Guide	Explains how to build a production deployment of GlassFish Server that meets the requirements of your system and enterprise.
Administration Guide	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.
Security Guide	Provides instructions for configuring and administering GlassFish Server security.
Application Deployment Guide	Explains how to assemble and deploy applications to the GlassFish Server and provides information about deployment descriptors.
Application Development Guide	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.
Embedded Server Guide	Explains how to run applications in embedded GlassFish Server and to develop applications in which GlassFish Server is embedded.
High Availability Administration Guide	Explains how to configure GlassFish Server to provide higher availability and scalability through failover and load balancing.
Performance Tuning Guide	Explains how to optimize the performance of GlassFish Server.
Troubleshooting Guide	Describes common problems that you might encounter when using GlassFish Server and explains how to solve them.
Error Message Reference	Describes error messages that you might encounter when using GlassFish Server.
Reference Manual	Provides reference information in man page format for GlassFish Server administration commands, utility commands, and related concepts.
Message Queue Release Notes	Describes new features, compatibility issues, and existing bugs for Open Message Queue.

Book Title	Description
Message Queue Technical Overview	Provides an introduction to the technology, concepts, architecture, capabilities, and features of the Message Queue messaging service.
Message Queue Administration Guide	Explains how to set up and manage a Message Queue messaging system.
Message Queue Developer's Guide for JMX Clients	Describes the application programming interface in Message Queue for programmatically configuring and monitoring Message Queue resources in conformance with the Java Management Extensions (JMX).
Message Queue Developer's Guide for Java Clients	Provides information about concepts and procedures for developing Java messaging applications (Java clients) that work with GlassFish Server.
Message Queue Developer's Guide for C Clients	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](https://javaee.github.io/firstcup/) (<https://javaee.github.io/firstcup/>). 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 Tutorial](https://javaee.github.io/tutorial/) (<https://javaee.github.io/tutorial/>). This comprehensive tutorial explains how to use Java EE 8 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 of Java EE is located at <https://javaee.github.io/javaee-spec/javadocs/>.
- The API specification for GlassFish Server 5.0, including Java EE platform packages and nonplatform packages that are specific to the GlassFish Server product, is located at <https://javaee.github.io/javaee-spec/javadocs/>.

Additionally, the [Java EE Specifications](#) might be useful.

For information about creating enterprise applications in the NetBeans Integrated Development Environment (IDE), see the [NetBeans Documentation, Training & Support page](#).

For information about the Apache Derby for use with the GlassFish Server, see the [Apache Derby product page](#).

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](#).

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> <code>Password:</code>
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 User's Guide. A cache is a copy that is stored locally. Do not 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.

Symbol	Description	Example	Meaning
{ }	Contains a set of choices for a required command option.	-d {y n}	The -d option requires that you use either the y argument or the n argument.
\${ }	Indicates a variable reference.	\${com.sun.javaRoot}	References the value of the com.sun.javaRoot 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
as-install	Represents the base installation directory for GlassFish Server. In configuration files, as-install 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: user's-home-directory`/glassfish6/glassfish` Installations on the Windows operating system: SystemDrive`:\glassfish6\glassfish`
as-install-parent	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: user's-home-directory`/glassfish6` Installations on the Windows operating system: SystemDrive`:\glassfish6`
domain-root-dir	Represents the directory in which a domain is created by default.	as-install`/domains/`

Placeholder	Description	Default Value
domain-dir	<p>Represents the directory in which a domain's configuration is stored.</p> <p>In configuration files, domain-dir is represented as follows:</p> <p><code>\${com.sun.aas.instanceRoot}</code></p>	domain-root-dir`/`domain-name
instance-dir	Represents the directory for a server instance.	domain-dir`/`instance-name

1 Installing Eclipse GlassFish Server 5.1

This chapter provides instructions for installing Eclipse GlassFish Server 5.1 software on Solaris, Linux, Mac OS X, and Windows systems.

The following topics are addressed here:

- [Installation Requirements](#)
- [Installation Files for GlassFish Server 5.0](#)
- [Installing GlassFish Server From a ZIP File](#)

Installation Requirements

Before installing Eclipse GlassFish Server 5.1, ensure that your system meets the requirements listed in "[Hardware and Software Requirements](#)" in Eclipse GlassFish Server 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 Eclipse GlassFish Server 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) (<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/) (<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 https://github.com/jboss-javassist/javassist/archive/rel_3_22_0_cr2.zip and in object code form in the jar file `glassfish6/glassfish/modules/javassist.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.

"The contents of this file are subject to the Mozilla Public License

Version 1.1 (the "License"); you may not use this file except in

compliance with the License. You may obtain a copy of the License at <http://www.mozilla.org/MPL/>

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License. The Original Code is Javassist 3.14.0.GA. The Initial Developer of the Original Code is Shigeru Chiba. Portions created by Shigeru Chiba are Copyright © 1999-2010. All Rights Reserved.

Alternatively, the contents of this file may be used under the terms of GNU Lesser General Public License Version 2.1 or later (the "LGPL"), in which case the provisions of the LGPL License are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the LGPL License and not to allow others to use your version of this file under the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the LGPL License. If you do not delete the provisions above, a recipient may use your version of this file under either the MPL or the LGPL License."

MOZILLA PUBLIC LICENSE

Version 1.1

\1. Definitions.

1.0.1. "Commercial Use" means distribution or otherwise making the Covered Code available to a third party.

1.1. "Contributor" means each entity that creates or contributes to the creation of Modifications.

1.2. "Contributor Version" means the combination of the Original Code, prior Modifications used by a Contributor, and the Modifications made by that particular Contributor.

1.3. "Covered Code" means the Original Code or Modifications or the combination of the Original Code and Modifications, in each case including portions thereof.

1.4. "Electronic Distribution Mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.

1.5. "Executable" means Covered Code in any form other than Source Code.

1.6. "Initial Developer" means the individual or entity identified as the Initial Developer in the Source Code notice required by Exhibit A.

1.7. "Larger Work" means a work which combines Covered Code or portions thereof with code not governed by the terms of this License.

1.8. "License" means this document.

1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. "Modifications" means any addition to or deletion from the substance or structure of either the

Original Code or any previous Modifications. When Covered Code is released as a series of files, a Modification is:

1. Any addition to or deletion from the contents of a file containing Original Code or previous Modifications.
2. Any new file that contains any part of the Original Code or previous Modifications.

1.10. "Original Code" means Source Code of computer software code which is described in the Source Code notice required by Exhibit A as Original Code, and which, at the time of its release under this License is not already Covered Code governed by this License.

1.10.1. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.11. "Source Code" means the preferred form of the Covered Code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an Executable, or source code differential comparisons against either the Original Code or another well known, available Covered Code of the Contributor's choice. The Source Code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License or a future version of this License issued under Section 6.1. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

\2. Source Code License.

2.1. The Initial Developer Grant.

The Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims:

\(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer to use, reproduce, modify, display, perform, sublicense and distribute the Original Code (or portions thereof) with or without Modifications, and/or as part of a Larger Work; and

\(b) under Patents Claims infringed by the making, using or selling of Original Code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Code (or portions thereof).

\(c) the licenses granted in this Section 2.1(a) and (b) are effective on the date Initial Developer first distributes Original Code under the terms of this License.

\(d) Notwithstanding Section 2.1(b) above, no patent license is granted: 1) for code that You delete from

the Original Code; 2) separate from the Original Code; or 3) for infringements caused by: i) the modification of the Original Code or ii) the combination of the Original Code with other software or devices.

2.2. Contributor Grant.

Subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license

\(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor, to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof) either on an unmodified basis, with other Modifications, as Covered Code and/or as part of a Larger Work; and

\(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) Modifications made by that Contributor (or portions thereof); and 2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

\(c) the licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first makes Commercial Use of the Covered Code.

\(d) Notwithstanding Section 2.2(b) above, no patent license is granted: 1) for any code that Contributor has deleted from the Contributor Version; 2) separate from the Contributor Version; 3) for infringements caused by: i) third party modifications of Contributor Version or ii) the combination

of Modifications made by that Contributor with other software (except as part of the Contributor

Version) or other devices; or 4) under Patent Claims infringed by Covered Code in the absence of

Modifications made by that Contributor.

\3. Distribution Obligations.

3.1. Application of License.

The Modifications which You create or to which You contribute are governed by the terms of this License, including without limitation Section 2.2. The Source Code version of Covered Code may be distributed only under the terms of this License or a future version of this License released under Section 6.1, and You must include a copy of this License with every copy of the Source Code You distribute. You may not offer or impose any terms on any Source Code version that alters or restricts the applicable version of this License or the recipients' rights hereunder. However, You may include an additional document offering the additional rights described in Section 3.5.

3.2. Availability of Source Code.

Any Modification which You create or to which You contribute must be made available in Source Code form under the terms of this License either on the same media as an Executable version or via an accepted Electronic Distribution Mechanism to anyone to whom you made an Executable version available; and if made available via Electronic Distribution Mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular Modification has been made available to such recipients. You are responsible for ensuring that the Source Code version remains available even if the Electronic Distribution Mechanism is maintained by a third party.

3.3. Description of Modifications.

You must cause all Covered Code to which You contribute to contain a file documenting the changes You made to create that Covered Code and the date of any change. You must include a prominent statement that the Modification is derived, directly or indirectly, from Original Code provided by the Initial Developer and including the name of the Initial Developer in (a) the Source Code, and (b) in any notice in an Executable version or related documentation in which You describe the origin or ownership of the Covered Code.

3.4. Intellectual Property Matters

\(a) Third Party Claims.

If Contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such Contributor under Sections 2.1 or 2.2, Contributor must include a text file with the Source Code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If Contributor obtains such knowledge after the Modification is made available as described in Section 3.2, Contributor shall promptly modify the LEGAL file in all copies Contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the Covered Code that new knowledge has been obtained.

\(b) Contributor APIs.

If Contributor's Modifications include an application programming interface and Contributor has knowledge of patent licenses which are reasonably necessary to implement that API, Contributor must also include this information in the LEGAL file.

\(c) Representations.

Contributor represents that, except as disclosed pursuant to Section 3.4(a) above, Contributor believes that Contributor's Modifications are Contributor's original creation(s) and/or Contributor has sufficient rights to grant the rights conveyed by this License.

3.5. Required Notices.

You must duplicate the notice in Exhibit A in each file of the Source Code. If it is not possible to put such notice in a particular Source Code file due to its structure, then You must include such notice in a

location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more Modification(s) You may add your name as a Contributor to the notice described in Exhibit A. You must also duplicate this License in any documentation for the Source Code where You describe recipients' rights or ownership rights relating to Covered Code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Code. However, You may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear than any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.6. Distribution of Executable Versions.

You may distribute Covered Code in Executable form only if the requirements of Section 3.1-3.5 have been met for that Covered Code, and if You include a notice stating that the Source Code version of the Covered Code is available under the terms of this License, including a description of how and where You have fulfilled the obligations of Section 3.2. The notice must be conspicuously included in any notice in an Executable version, related documentation or collateral in which You describe recipients' rights relating to the Covered Code. You may distribute the Executable version of Covered Code or ownership rights under a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable version does not attempt to limit or alter the recipient's rights in the Source Code version from the rights set forth in this License. If You distribute the Executable version under a different license You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or any Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.7. Larger Works.

You may create a Larger Work by combining Covered Code with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Code.

4. Inability to Comply Due to Statute or Regulation.

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Code due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in Section 3.4 and must be included with all distributions of the Source Code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this License.

This License applies to code to which the Initial Developer has attached the notice in Exhibit A and to related Covered Code.

\6. Versions of the License.

6.1. New Versions.

Netscape Communications Corporation ("Netscape") may publish revised and/or new versions of the License from time to time. Each version will be given a distinguishing version number.

6.2. Effect of New Versions.

Once Covered Code has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Covered Code under the terms of any subsequent version of the License published by Netscape. No one other than Netscape has the right to modify the terms applicable to Covered Code created under this License.

6.3. Derivative Works.

If You create or use a modified version of this License (which you may only do in order to apply it to code which is not already Covered Code governed by this License), You must (a) rename Your license so that the phrases "Mozilla", "MOZILLAPL", "MOZPL", "Netscape", "MPL", "NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this License) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public License and Netscape Public License. (Filling in the name of the Initial Developer, Original Code or Contributor in the notice described in Exhibit A shall not of themselves be deemed to be modifications of this License.)

\7. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

\8. TERMINATION.

8.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the Covered Code which are properly granted shall survive any termination of this License. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

8.2. If You initiate litigation by asserting a patent infringement claim (excluding declaratory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You file such action is referred to as "Participant") alleging that:

(a) such Participant's Contributor Version directly or indirectly infringes any patent, then any and all rights granted by such Participant to You under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice You either: agree in writing to pay Participant a mutually agreeable reasonable royalty for Your past and future use of Modifications made by such Participant, or (ii) withdraw Your litigation claim with respect to the Contributor Version against such Participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Participant to You under Sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.

(b) any software, hardware, or device, other than such Participant's Contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such Participant under Sections 2.1(b) and 2.2(b) are revoked effective as of the date You first made, used, sold, distributed, or had made, Modifications made by that Participant.

8.3. If You assert a patent infringement claim against Participant alleging that such Participant's Contributor Version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under Sections 8.1 or 8.2 above, all end user license agreement (excluding distributors and resellers) which have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

9. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY

DISTRIBUTOR OF COVERED CODE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER

INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH

PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH

PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL

DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

\10. U.S. GOVERNMENT END USERS.

The Covered Code is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Code with only those rights set forth herein.

\11. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the United States of America, any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California, with venue lying in Santa Clara County, California, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United Nations Convention on

Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License.

\12. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

\13. MULTIPLE-LICENSED CODE.

Initial Developer may designate portions of the Covered Code as "Multiple-Licensed?". "Multiple-Licensed?" means that the Initial Developer permits you to utilize portions of the Covered Code under Your choice of the MPL or the alternative licenses, if any, specified by the Initial Developer in the file described in Exhibit A.

EXHIBIT A -Mozilla Public License.

The contents of this file are subject to the Mozilla Public License Version 1.1 (the "License"); you may

not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.mozilla.org/MPL/>. Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License.

The Original Code is Javassist.

The Initial Developer of the Original Code is Shigeru Chiba. Portions created by the Initial Developer are

Copyright © 1999-2016 Shigeru Chiba. All Rights Reserved.

Contributor(s): __.

Alternatively, the contents of this file may be used under the terms of the GNU Lesser General Public License Version 2.1 or later (the "LGPL"), in which case the provisions of the LGPL are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the LGPL, and not to allow others to use your version of this file under the terms of the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the LGPL. If you do not delete the provisions above, a recipient may use your version of this file under the terms of either the MPL or the LGPL.

Installation Files for GlassFish Server 5.1

The following topics are addressed here:

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

GlassFish Server Download Locations

Installation files for Eclipse GlassFish Server 5.1 are available by download from the [GlassFish Server Downloads](#) page.

Eclipse GlassFish Server 5.1 is also part of the Java EE SDK distributions. The SDK distributions are available from the [Java EE downloads page](#) 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.



Before performing any GlassFish Server installation, ensure that your environment adheres to the JDK guidelines in "<https://javaee.github.io/glassfish/doc/5.0/release-notes.pdf>[Paths and Environment Settings for the JDK Software]" in GlassFish Server Open Source Edition Release Notes.

Table 1-1 GlassFish Server 5.1 Installation Methods

Installation Method	Installation Instructions
Multi-platform ZIP file	Installing GlassFish Server From a ZIP File.

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 5.1 installation method to use.

- [ZIP Package](#)
- [Full Platform or Web Profile Distribution](#)

ZIP Package

The relative features and strengths of the GlassFish Server ZIP packages 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
 - If uninstallation is desired, product must be uninstalled manually

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 8	X	X
Java EE Security API	X	X
Java API for JSON Processing 1.1	X	X
Java API for JSON Binding 1.0	X	X
EJB 3.2 Lite (Support for Local Container only)	X	X
JTA 1.2	X	X
OSGi-based microkernel	X	X
Java Web Technologies (Servlet 4.0, JSP 2.2, JSF 2.3, JSTL 1.2, EL 3.0)	X	X
Grizzly/Comet	X	X
JPA 2.2, (EclipseLink), JDBC Connection Pooling	X	X
JDBC 4.0	X	X
Apache Derby 10.13.1.1	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 1.3	X	X
Dependency Injection for Java 1.0	X	X
Managed Beans 1.0	X	X
Interceptors 1.2	X	X
Contexts and Dependency Injection for Java 2.0 (CDI, ex-Web Beans)	X	X
Bean Validation 2.0	X	X
JAX-RS 2.1 (Jersey)	X	X
EJB 3.2 Full API (Support for Remote Container)	X	-
Java EE Connector Architecture 1.7	X	-
JAX-WS 2.3	X	-

Feature	Full Platform	Web Profile
JAXB 2.2	X	-
Implementing Java Web Services 1.4	X	-
Web Services Metadata for the Java Platform 2.1	X	-
JMS 2.0	X	-
JavaMail 1.6	X	-
JACC 1.5	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	*
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.

GlassFish Server ZIP Files

The Eclipse GlassFish Server 5.1 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.

Table 1-3 GlassFish Server Downloadable ZIP Files

ZIP File	Description
glassfish-5.0.zip	Full Platform distribution of Eclipse GlassFish Server

ZIP File	Description
glassfish-5.0-web.zip	Web Profile distribution Eclipse GlassFish Server

Installing GlassFish Server From a ZIP File

This section describes how to install GlassFish Server Open Source Edition 5.1 using the multi-platform ZIP file. GlassFish Server is installed by unzipping the file in the installation directory of your choice.



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.

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 5.1 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-5.0.zip
```

- Windows systems:

Unzip using your favorite file compression utility.

Eclipse GlassFish Server 5.1 is extracted into a new `glassfish6` directory under your current directory. This `glassfish6` directory is referred to throughout the GlassFish Server documentation set as `as-install-parent`.

1. 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.

2 Uninstalling GlassFish Server 5.0

This chapter describes how to uninstall GlassFish Server Open Source Edition 5.0 software.

Removing a GlassFish Server Installation

This section describes how to remove GlassFish Server Open Source Edition 5.0 software.

The following topics are addressed here:

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

To Uninstall GlassFish Server Software After a 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 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.

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.