

## 1. Introduction

### 1.1. Project/Component Working Name:

GlassFish V3 Installation/Uninstallation Program.

### 1.2. Name(s) and e-mail address of Document Author(s)/Supplier:

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### 1.3. Date of This Document:

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## 2. Project Summary

### 2.1. Project Description:

Product installer/uninstaller for GlassFish V3 distribution.

### 2.2. Risks and Assumptions:

1). This project has dependency on OpenInstaller framework and hence

would require product support to resolve upcoming issues.

2). There is a possibility of switching to IzPack framework if the evaluation

of the same fills the current gaps in OpenInstaller framework.

3). The project depends on a stable update center bootstrap tool.

4). Fixes for security alerts should be resolved and available in zlib software libraries that the installer depends on.

5). Registration feature of this project depends on back-end implementation of same in GlassFish V3, that in turn depends on stable

sysnet infrastructure.

6). Administration command line 'asadmin' should be stable as this installer invokes the same during installation to setup GlassFish domain. Currently create-domain and stop-domain commands are used.

7). Administration command line 'asadmin create-service' will be available to

create Windows Service.

8). Desktop and browser integration features might not be supported in MacOS.

## 3. Problem Summary

### 3.1. Problem Area:

End users require reliable and easy to use product installer in order

to access and use all of the product features.

### 3.2. Justification:

Installer is a required interface to expose product features and functionalities.

## 4. Technical Description:

### 4.1. Details:

Main objective of this project is to provide an installer for GlassFish V3. The installer will use a combination of zip files and individual files and will support non-root installation on Solaris and Linux.

The installer has the following features:

NOTE: Features prefixed with "\*\*\*" are new features of V3 post prelude release.

- \*\* Support uninstallation in silent mode.
- \*\* Mask passwords stored in silent file.
- \*\* Support custom JDK path in addition to automatic detection.
- \*\* Co-existence of different product distributions(javaee, web only etc.,) in a single machine.
- \*\* Reduced download size of files required for installer program, by about ~4MB(compared to v3 distribution).
- \*\* All of the port numbers used by V3 server can now be customized during installation.
- \*\* Uninstallation program will be aware of components installed through update tool.
- \*\* Windows service support.
- \* Support for Silent and GUI modes of installation.
- \* Online help.
- \* Product Registration.
- \* Automated Configuration to setup GlassFish domain and update center.
- \* A self-extracting executable for ease-of-launching the installer.
- \* Desktop integration on Windows and Gnome based desktops for GlassFish menu and items.
- \* Update center notifier will be integrated in the desktop.

Installer will support following platforms: Solaris, Linux, Windows and

MacOS.

### 4.2. Bug/RFE Number(s):

- [https://glassfish.dev.java.net/issues/show\\_bug.cgi?id=5034](https://glassfish.dev.java.net/issues/show_bug.cgi?id=5034)(Gnome Desktop)
- [https://glassfish.dev.java.net/issues/show\\_bug.cgi?id=5117](https://glassfish.dev.java.net/issues/show_bug.cgi?id=5117)(Unable to enter proxy information)
- [https://glassfish.dev.java.net/issues/show\\_bug.cgi?id=5851](https://glassfish.dev.java.net/issues/show_bug.cgi?id=5851)(Reduce the size of installer by 4 mb by reusing engine and resources.zip)
- [https://glassfish.dev.java.net/issues/show\\_bug.cgi?id=5888](https://glassfish.dev.java.net/issues/show_bug.cgi?id=5888)(Identify student user in the registration process)
- [https://glassfish.dev.java.net/issues/show\\_bug.cgi?](https://glassfish.dev.java.net/issues/show_bug.cgi?)

id=6231(installation directory not-empty, add glassfish directory)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6302<Show advanced port defaults and let the user change it instead of silently accepting defaults>  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6466(Silent uninstallation support)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6733(uninstaller not cleaning up components installed through updatetool)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6779(windows service)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6204(Use correct properties file for sysnet registration, instead of hard-coding).  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6231(installation directory not-empty, add glassfish directory)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=4896(naming consistency in components)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6353(User experience improvement, provide meaningful error message).  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6365(unable to install on solaris 9, mktemp issue)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6383(start program items consolidation, missing admin console and update center items).  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6595(<8 character password validation).  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6789(Embedded space)  
-https://glassfish.dev.java.net/issues/show\_bug.cgi?id=6792(remove uninstall.sh from windows, distribute only operating system specific files).

#### 4.3. In Scope:

N/A.

#### 4.4. Out of Scope:

- 1). This project will not address the installation of product native packages.
- 2). Direct In-Place Upgrade from earlier versions of Application Server are not supported.
- 3). This project does not support interactive command-line installation
- 4). Mac desktop integration not supported as Open Installer does not provide a mechanism to do the same.

#### 4.5. Interfaces:

#### 4.5.1 Exported Interfaces

Interface: setup[.exe | .sh]

Stability: unstable

Comments:

setup[.exe | .sh] [-options ]

where options include

-a <answer file>, this is to run the program in

silent

mode without user interaction.

-R <Alternate Root Directory>

-l <Log Directory>

-q Logging level set to WARNING

-v Logging level set to FINEST

-j <javahome> JRE/JDK installation directory to be

used.

-n <answer file to be generated>, runs the program

and

generates the given answer file by capturing user

inputs.

This can later be used with -a option to run in non-interactive mode.

-h | -help <Help message>.

Interface: uninstall[.exe | .sh]

Stability: unstable

Comments:

uninstall[.exe | .sh] [-options ]

where options include

-a <answer file>, this is to run the program in

silent

mode without user interaction.

-R <Alternate Root Directory>

-l <Log Directory>

-q Logging level set to WARNING

-v Logging level set to FINEST

-j <javahome> JRE/JDK installation directory to be

used

by this program.

-h | -help <Help message>.

Interface: Silent Installer State-file

Stability: unstable

Comments: Current parameters that can be customized by the

user.

Detailed information about possible options will be documented

in

the installation guide. The parameter file along with product binaries will be handed over to other Sun products like

netbeans

that bundle a version of GlassFish V3.

openInstaller Dry Run Answer File. This File can be used as input to

the openInstaller engine using the -a option.

```
#Mon Jun 30 14:00:44 PDT 2008
InstallHome.directory.INSTALL_HOME=/Users/sathyan/glassfish-v3tp2
License.license.ACCEPT_LICENSE=0
GlassFish.administration.ADMIN_PORT=4848
** GlassFish.administration.ADMIN_PASSWORD_OBFUSCATED=TRUE
GlassFish.administration.ADMIN_PASSWORD=
GlassFish.administration.ADMIN_USERNAME=
GlassFish.administration.USE_ANONYMOUS=true
GlassFish.administration.HTTP_PORT=8080
SOAccountCreation.accountinfo.COMPANYNAME=
SOAccountCreation.accountinfo.COUNTRY=
SOAccountCreation.accountinfo.COUNTRY_DROP_DOWN=
SOAccountCreation.accountinfo.EMAIL=
SOAccountCreation.accountinfo.FIRSTNAME=
SOAccountCreation.accountinfo.LASTNAME=
** SOAccountCreation.accountinfo.PASSWORD_OBFUSCATED=TRUE
SOAccountCreation.accountinfo.PASSWORD=
SOAccountCreation.accountinfo.REENTERPASSWORD=
** SOAccountCreation.accountinfo.STUDENT_USER=FALSE
** GlassFish.javaconfig.JAVA_PATH=
RegistrationOptions.options.CREATE_NEWACCT=TRUE
RegistrationOptions.options.SKIP_REGISTRATION=FALSE
RegistrationOptions.options.USE_EXISTINGACCT=FALSE
RegistrationOptions.options.USERNAME=
RegistrationOptions.options.USERPASSWORD=
** GlassFish.portconfig.HTTP_SSL_PORT=8080
** GlassFish.portconfig.JMS_PORT=7676
** GlassFish.portconfig.JMX_PORT=8686
** GlassFish.portconfig.ORB_LISTENER_PORT=3700
** GlassFish.portconfig.ORB_MUTUALAUTH_PORT=3920
** GlassFish.portconfig.ORB_SSL_PORT=3820
updatetool.configuration.ALLOW_UPDATE_CHECK=true
updatetool.configuration.BOOTSTRAP_UPDATETOOL=true
updatetool.configuration.PROXY_HOST=
updatetool.configuration.PROXY_PORT=
```

NOTE: entries prefixed with "\*\*\*" are to support new features introduced post prelude release.

Interface: Windows/Gnome Desktop Menu Items

Stability: unstable

Comments:

Windows:

Start-> All Programs-> GlassFish v3 <Dist Type>

```
Start Application Server
Stop Application Server
Start Update Tool
About GlassFish v3 <Dist Type>
Uninstall
```

Gnome:

```
Applications -> Servers -> GlassFish v3 <Dist Type>
Start Application Server
Stop Application Server
Start Update Tool
About GlassFish v3 <Dist Type>
Uninstall
```

where <Dist Type> values are to be coined.

#### 4.5.2 Imported interfaces

```
Interface: Update Center bootstrap tool
Stability: Unstable.
Exporting Project:
http://wiki.updatecenter.java.net/Wiki.jsp?
page=UC20FSD.InitInterface.
Comments: None.
```

```
Interface: OpenInstaller
Stability: External.
Exporting Project: https://openinstaller.dev.java.net.
Comments: None.
```

```
Interface: zlib libraries.
Stability: External.
Exporting Project: http://www.gzip.org/zlib
Comments: None.
```

```
Interface: asadmin.
Stability: Unstable.
Exporting Project: GlassFish V3.
Comments: Following asadmin subcommands and parameters are used
```

by

```
installer:
* asadmin create-domain --savelogin --no-checkports --adminport
<adminport> --user <username> --passwordfile <passwordfile>
--instanceport <httpport> domain1

* asadmin stop-domain <domain-name>
```

\* asadmin create-service <required args for service creation>  
<servicename>

\* asadmin delete-service <required args for service deletion>  
<servicename>

Interface: product registration apis.  
Stability: Unstable.  
Exporting Project: GlassFish V3.  
Comments: None.

Interface: File Layout specification.  
Stability: Unstable.  
Exporting Project: [http://wiki.glassfish.java.net/attach/  
V3FunctionalSpecs/V3FileLayout.txt](http://wiki.glassfish.java.net/attach/V3FunctionalSpecs/V3FileLayout.txt)  
Comments: None.

Interface: product-wide configuration file, asenv.  
Stability: Unstable.  
Exporting Project: GlassFish V3.  
Comments: None.

#### 4.5.3 Other interfaces (Optional)

N/A.

#### 4.6. Doc Impact:

Installation guide, Quick Start guide, Compatibility Guide  
are to be modified.

#### 4.7. Admin/Config Impact:

NONE

#### 4.8. HA Impact:

NONE

#### 4.9. I18N/L10N Impact:

Yes, the resource strings used by this installation program  
including  
the license text have to be localized.

#### 4.10. Packaging & Delivery:

-The installer will be distributed as a self-extracting archive on  
all  
of the supported platforms.  
-IPS package database corresponding to installed packages will also  
be delivered.  
-Native distributions are not supported on all supported platforms.

#### 4.11. Security Impact:

- 1). Installation process will expose ports for the following
  - Port used by GlassFish V3 administration domain
  - HTTP proxy server port used for product registration and update center.
  - JMS
  - JMX connector.
  - ORB listener for IIOP connections.
  - HTTP listener-2.
  - ORB listener for IIOP connections for listener "SSL".
  - ORB listener for IIOP connections for listener "SSL\_MUTUAL\_AUTH".
- 2). Installation process will accept passwords required for setting up a Sun Online Account required for product registration.
- 3). Installation process will accept passwords required for setting up a GlassFish administration domain.
- 4). The passwords stored in answer file(to be used for silent installation) will be obfuscated.  
If the users would like to change it, they have to be provided in clear text.

#### 4.12. Compatibility Impact

- 1). This installation program is not compatible with earlier releases of GlassFish installation interfaces as different incompatible frameworks are used to develop them. State-files(silent installation) generated out of the earlier versions of application server product installers cannot be used with this program.
- 2). Upgrade of binaries that belong to earlier versions of GlassFish through this installation program are not supported.

#### 4.13. Dependencies:

- 1). zlib 1.1.4
- 2). Open Installer 1.0
- 3). Sysnet Infrastructure
- 4). asadmin
- 5). Update Center bootstrap tool
- 6). asenv configuration file
- 6). File Layout specification.

5. Reference Documents:

1. <https://openinstaller.dev.java.net/docs/index.html>
2. <http://www.gzip.org/zlib/>
3. <http://wiki.updatecenter.java.net/Wiki.jsp?page=UC20FSD.InitInterface>

6. Schedule:

6.1. Projected Availability:

This project with planned features is likely to be available for use by early March' 2009.