

1. Introduction

1.1. Project/Component Working Name:

GlassFish Server 3.1 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). The project depends on a stable update center bootstrap tool.

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

3). Registration feature of this project depends on back-end implementation of same in GlassFish V3.1, that in turn depends on stable sysnet infrastructure.

4). Administration command line 'asadmin' should be stable as this installer invokes the same during installation to setup GlassFish domain and related service.

5). Administration command line 'asadmin delete-service' or an equivalent is currently not available to remove the operating system service controlling the default domain.

6). We may not be able to satisfy all of the security policy requirements as some post-installation commands related to update center and domain administration may revert back the file/directory permissions set during installation.

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 V3.1. The installer will use a combination of zip files and non-zip files and will also support non-root installation on Solaris and Linux.

The installer has the following features:

* Create services for Domain as well as for a stand-alone instance upon user consent.

* Skip configuration of Message Queue upon user consent.

* File/Permissions and passwords protected to adhere to Security Policy.

* Ability to configure the installation machine as a "server" or as just a "node".

- * Signed launcher executable with appropriate publisher information.
- * Improvements to log, debug, progress status messages and overall user experience.
- * A typical or custom installation option will be available to users(not in silent mode).
 - Typical installations unlike custom installations, will not create a service,
 - will not provide an option to skip Message Queue configuration, will always
 - configure the installation machine as the server.

Installer will support following platforms: Solaris, Linux, Windows, MacOS.

4.2. Bug/RFE Number(s):

- https://glassfish.dev.java.net/issues/show_bug.cgi?id=11514(L10N, uninstaller localization incomplete)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=11523(L10N, Windows system menu for v3 is not localized)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=11249(User Experience, Garbled error messages in installer)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=10344(AIX support, Could not install promoted glassfish-v3-b67-unix.sh on a AIX 6.1)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=10734(Give warning when user tries to install over existing installation)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=4881(Install log file is not readable)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=5094(Default directory location)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=5264(Install Windows Service)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=6240(Port input validation and error message)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=10649(Garbled error messages)
- https://glassfish.dev.java.net/issues/show_bug.cgi?id=1040(Simplify LB Plugin Installation/setup)

4.3. In Scope:

- 1). Installation program on all supported platforms listed in 4.1.
- 2). Uninstallation program on all supported platforms listed in 4.1.
- 3). Supported modes, usage, product/component configurations.

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). Package level isolation of MQ component will not be supported. Message Queue binaries will always be installed, only the configuration part will be skipped.

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 answer 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=

GlassFish.administration.ADMIN_USERNAME=

GlassFish.administration.USE_ANONYMOUS=true

GlassFish.administration.HTTP_PORT=8080

updatetool.configuration.ALLOW_UPDATE_CHECK=true/false

updatetool.configuration.BOOTSTRAP_UPDATETOOL=true/false

updatetool.configuration.PROXY_HOST=

updatetool.configuration.PROXY_PORT=

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
RegistrationOptions.options.CREATE_NEWACCT=TRUE
RegistrationOptions.options.SKIP_REGISTRATION=FALSE
RegistrationOptions.options.USE_EXISTINGACCT=FALSE
RegistrationOptions.options.USERNAME=
RegistrationOptions.options.USERPASSWORD=

```

NEW KEYS:

```

GlassFish.administration.CREATE_DOMAIN=true/false
GlassFish.administration.CREATE_SERVICE=true/false
GlassFish.administration.SERVICE_NAME=<Name of the service, default is
domain1Service(Solaris)/domain1Service.exe(Windows)>
GlassFish.administration.SERVICE_PROPS=<colon(:)-separated list of properties that
are specific to the service>
GlassFish.administration.CONFIG_MQ=true/false

```

NOTE: The following entries will not be supported in 3.1 as product registration and providing admin passwords through answer file will not be supported.

Interface: Windows/Gnome Desktop Menu Items

Stability: unstable

Comments:

Windows:

```

Start-> All Programs-> <Product Name>
  Start Application Server
  Stop Application Server
  Start Update Tool
  About GlassFish v3 <Product Name>
  Uninstall

```

Gnome:

```

Applications -> Servers -> <Product Name>
  Start Application Server
  Stop Application Server
  Start Update Tool
  About GlassFish v3 <Product Name>
  Uninstall

```

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> <service-name>
- * asadmin create-local-instance <required args for instance creation> <instance-name>
- * asadmin delete-local-instance <required args for instance deletion> <instance-name>

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>
 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.
- 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 silent installer answer file can optionally store the domain password in plain text.

The file will be protected with appropriate permissions(read/write only for installing users).

4.12. Compatibility Impact

- 1). This installation program is not compatible with earlier releases of GlassFish installation interfaces. Answer 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
- 7). File Layout specification.
- 8). Load Balancing Configurator tool.

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>
4. Overall product feature set document <http://wiki.glassfish.java.net/Wiki.jsp?>

page=GlassFishv3.1.

5. <http://wiki.glassfish.java.net/Wiki.jsp?page=3.1PackagingOnePager>

6. Schedule:

6.1. Projected Availability:

This project with planned features will be available for use by September' 2010.