

# One Pager: <V3/Upgrade Tool>

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## 1. Introduction

### 1.1. Project/Component Working Name

Upgrade Tool for V3

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

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### 1.3. Date of This Document

05/19/09 Draft 2

07/10/09 Draft 1

## 2. Project Summary

### 2.1. Project Description

Upgrade Tool in V3 will be a reporting tool. It will present the domain to be upgraded to the application server for evaluation. The application server will report all identifiable issues in a log file which upgrade tool will display to the user.

### 2.2. Risks and Assumptions

Each V3 container (component) will implement an *upgrade service* as defined by the application server team. The success of upgrade is completely dependent on the module owners implementing appropriately for their area and providing adequate messages for the report.

The installer will still be able to invoke upgrade tool.

Upgrade Tool still will be runnable in standalone mode.

Upgrade Tool will be runnable from scripts such as csh, sh ... etc.

## 3. Problem Summary

### 3.1. Problem Area

The transitioning of existing complex application server configurations from the current server to the newest version typically has some amount of backward incompatibility. There are always some scenarios that requires user intervention. V3 is no different. V3 requires a user friendly means to identify transition issues, notifying the user and allow him to determine what data to move to the new product version.

### 3.2. Justification

Corporate customers running complex application server configurations, when moving from the current server (as9.1x, sges v2.1, V3-Prelude) to the newest version (V3) find it imperative to be informed what data in an existing configuration can be transferred automatically and what data needs to be transferred manually. They use this data to make a informed decision as to what when and how to move data. Upgrade Tool provides an interactive interface to this evaluation and reporting process.

## 4. Technical Description

### 4.1. Details

GlassFish V3 is being implemented as a set of OSGi bundles. Having component bundles that can run standalone or be mixed and matched with other components to create new products and profiles means each component must be aware of its domain configuration requirements. When starting the domain with the *--upgrade* option, each component must be able to evaluate the relevant configuration information, transform the data to its current needs if possible and report issues that require manual intervention.

Upgrade Tool will retain its GUI and CLI presence, however the GUI will be altered to meet the needs of its new requirements and the CLI may be simplified. The installer will interact with the tool via the CLI as it currently

does.

Upgrade Tool will perform an initial evaluation of the source domain determining if it is of an acceptable version. Out of range versions will be reported to the user and further processing will not proceed. The user will need to designate a valid domain.

Upgrade Tool will check the target domain for duplicate domain names. Duplicate names will be reported to the user. The user may choose to remove the existing domain, rename the existing domain or designate another directory.

Upgrade tool will check the source domain's `${AS_INSTALL}/lib` directory for user provided JAR files. These JAR files will be copied to the target domain's `${AS_INSTALL}/lib` directory before starting the upgrade. JARs with duplicate file names will not be copied; the user will be informed.

Upgrade tool will check for the presence of an upgrade log file in the target domain, if found the tool will not make a backup copy of the domain and proceed to the upgrade task. The tool will allow the user to cyclically call upgrade.

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

NA

#### 4.3. In Scope

- Supported product versions for upgrade to V3
  - AS9.1 Developer profile
  - AS9.1ur1 Developer profile
  - AS9.1ur2 Developer profile
  - SGES v2.1 Developer profile
  - SGES v2.2 Developer profile ... if there is one
  - V3-Prelude
- Upgrade Types
  - Side-by-Side upgrade
  - In-place (TBD)
- Installation types
  - File based install
  - Package based installs (TBD)
- Hardware Platforms
  - Those supported by GlassFish V3.

#### 4.4. Out of Scope

- Products **NOT** supported for V3 upgrade
  - all pre AS9.1 products
- Upgrade Types **NOT** supported
  - In-place (TBD)
- Installation Types **NOT** supported
  - Package based installs (TBD)

## 4.5. Interfaces

```
// Interfaces are a major part of Architectural review.
// Commands, Files, Directory Layout, Ports, DTD/Schema, admin tools,
// config files, APIs, CLIs, and almost anything that is externally
// observable is an interface. In 1-Pager it is necessary to document
// any interface that can be used by external projects and products.
// Documented public interfaces must be assigned a stability level.
// Some commonly used Stability levels in prior projects are:
//
// Stable : Widely used public interface. changed very rarely.
//
// Standard : Defined by a standards body (e.g. JDBCv3). Rare but
// incompatible clarifications and changes could occur
// in a standard. Product will specify version of std
// supported. J2SE, J2EE and WS* are classified
// as Standard.
//
// Evolving : Subject to carefully controlled but possibly
// incompatible change at a major or minor release.
// When a change is made all efforts will be made
// to address incompatibility and migration. All
// incompatibilities will need to be reviewed
// and approved by as-ccc@sun.com.
//
// Unstable : Early access, subject to unrestricted degree of
// change. A few App Server interfaces are classified
// as Unstable. Docs must call out exported unstable
// interfaces. Be wary of importing Unstable interfaces.
//
// External : Defined external to GlassFish Application Server,
// but not by a Standards body. Suitable for describing
// other freeware, open source interfaces.
//
// http://www.opensolaris.org/os/community/arc/policies/interface-taxonomy/
// describes the permitted interface taxonomy.
```

### 4.5.1 Exported Interfaces

// Disclose all interfaces that this project exports.

Interface	Stability	Former Stability (if changing)	Comments
CLI	Stable	Stable	<p>The following obsolete options are being dropped:</p> <pre>[-i/--clinstancefilesfile1,file2,file3...filen] [-d/--domain domain_name -n/--nsspwdfile nss_pwd_file_path -j/--jkspwdfile jks_pwd_file_path -p/--capwdfile ca_pwd_file_path]</pre> <p>These options will be retained:</p> <pre>[-c/--console] [-s/--source source_domain_directory] [-t/--target target domains root]</pre>

			[-a/--adminuser user] [-m/--masterpassword mpassword] [-f/--passwordfile pwd_file_path] [-V/--version] [-h/--help]

### 4.5.2 Imported interfaces

// Disclose interfaces this project imports.

Interface	Stability	Exporting Project: Name, Specification or other Link.	Comments

### 4.5.3 Other interfaces (Optional)

// Any private interfaces that may be of interest?

Interface	Stability	Exporting Project: Name, Specification or other Link.	Comments

### 4.6. Doc Impact

// List any Documentation (man pages, manuals, service guides...)  
 // that will be impacted by this proposal.

- Application Server Migration and Upgrade guide
- asupgrade man page

### 4.7. Admin/Config Impact

// How will this change impact the administration of the product?  
 // Identify changes to GUIs, CLI, agents, plugins...

### 4.8. HA Impact

NA

### 4.9. I18N/L10N Impactinks

None

### 4.10. Packaging & Delivery

// What packages, clusters or metaclusters does this proposal

// impact? What is its impact on install/upgrade?

#### 4.11. Security Impact

// How does this proposal interact with security-related APIs  
// or interfaces? Does it rely on any Java policy or platform  
// user/permissions implication? If the feature exposes any  
// new ports, Or any similar communication points which may  
// have security implications, note these here.

#### 4.12. Compatibility Impact

// Incompatible changes to interfaces that others expect  
// to be stable may cause other parts of application server or  
// other dependent products to break.

// Discuss changes to the imported or exported interfaces.  
// Describe how an older version of the interface would  
// be handled.

// List any requirements on upgrade tool and migration tool.

#### 4.13. Dependencies

All V3 components that require domain configuration changes. The currently known list is  
(see <http://wiki.glassfish.java.net/Wiki.jsp?page=V3FunctionalSpecs>)

- Grizzly Configuration <http://wiki.glassfish.java.net/Wiki.jsp?page=GrizzlyConfigOnePager>
- Logging <http://wiki.glassfish.java.net/attach/V3FunctionalSpecs/GFv3Logging-onepager.html>
- Deployment <http://wiki.glassfish.java.net/Wiki.jsp?page=gfv3-deployment-one-pager>
- Infrastructure (pending)
- (more to be specified)

### 5. Reference Documents

- Jerome D: core archecture upgrade overview (pending)
- Grizzly Configuration ([4.12. Compatibility Impact](#)) <http://wiki.glassfish.java.net/Wiki.jsp?page=GrizzlyConfigOnePager>
- Logging ([4.12. Compatibility Impact](#)) <http://wiki.glassfish.java.net/attach/V3FunctionalSpecs/GFv3Logging-onepager.html>
- Deployment ([4.12. Compatibility Impact](#)) <http://wiki.glassfish.java.net/Wiki.jsp?page=gfv3-deployment-one-pager>
- Infrastructure (pending) ([4.12. Compatibility Impact](#))
- (more to be specified)

### 6. Schedule

#### 6.1. Projected Availability

// Dates in appropriate precision (quarters, years)