

4.1.2. J2G

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 - -
 - - Eclipse GUI
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 - (EJB 3.0)
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 - OpenEJB
 - persistence.xml OpenEJB
 - - Eclipse GUI
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 - - Eclipse GUI
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J2G Eclipse IDE UI 3"" 3

- J2G
(J2G)
- Sun JDK 5.0 (J2SE 1.5)
 - Eclipse SDK 3.3M7 (JDT Core Plug-in)
 - Apache Geronimo 1.1.1
 - JBoss 3.2 J2EE 1.2

- J2G :
- JAVA_HOME (JDK)
 - ECLIPSE_HOME (Eclipse SDK)
 - WORKSPACE (eclipse)

bin j2g-configure

```
user@lappy-486:~/j2g$ cd bin
user@lappy-486:~/j2g/bin$ ./j2g-configure.sh
```

Copying J2G plugins to /home/user/.m2/repository/eclipse/eclipse/plugins/ ...

```
`../plugins/org.apache.geronimo.j2g.common_1.0.0-SNAPSHOT.jar' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.common_1.0.0-SNAPSHOT.jar'
`../plugins/org.apache.geronimo.j2g.descriptors_1.0.0-SNAPSHOT.jar' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.descriptors_1.0.0-SNAPSHOT.jar'
`../plugins/org.apache.geronimo.j2g.jasper_1.0.0-SNAPSHOT.jar' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.jasper_1.0.0-SNAPSHOT.jar'
`../plugins/org.apache.geronimo.j2g.resources_1.0.0-SNAPSHOT.jar' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.resources_1.0.0-SNAPSHOT.jar'
`../plugins/org.apache.geronimo.j2g.sources_1.0.0-SNAPSHOT.jar' ->
/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources_1.0.0-SNAPSHOT.jar'
`../plugins/org.apache.geronimo.j2g.util_1.0.0-SNAPSHOT.jar' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.util_1.0.0-SNAPSHOT.jar'
`../properties/org.apache.geronimo.j2g.descriptors.ejb/persistence_differences.properties' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.descriptors.ejb
/persistence_differences.properties'
`../properties/org.apache.geronimo.j2g.descriptors.ejb.annotation/annotation_differences.properties' ->
/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.descriptors.ejb.annotation
/annotation_differences.properties'
`../properties/org.apache.geronimo.j2g.sources.dependence/default_jars.properties' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence/default_jars.
properties'
`../properties/org.apache.geronimo.j2g.sources.dependence/class_analogies.properties' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence/class_analogies.
properties'
`../properties/org.apache.geronimo.j2g.sources.dependence/compatible_sources.properties' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence
/compatible_sources.properties'
`../properties/org.apache.geronimo.j2g.sources.environment/beans-types.properties' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.environment/beans-types.
properties'
`../properties/org.apache.geronimo.j2g.sources.environment/beans-interfaces.properties' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.environment/beans-interfaces.
properties'
`../properties/org.apache.geronimo.j2g.sources.environment/beans-references.properties' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.environment/beans-references.
properties'
`../compatibility/org.apache.geronimo.j2g.sources.dependence.compatibility/DigestCallback.java' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence.compatibility
/DigestCallback.java'
`../compatibility/org.apache.geronimo.j2g.sources.dependence.compatibility/GeronimoLoginModule.java' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence.compatibility
/GeronimoLoginModule.java'
`../compatibility/org.apache.geronimo.j2g.sources.dependence.compatibility/PasswordHasher.java' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence.compatibility
/PasswordHasher.java'
`../compatibility/org.apache.geronimo.j2g.sources.dependence.compatibility/Nobody.java' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence.compatibility
/Nobody.java'
`../compatibility/org.apache.geronimo.j2g.sources.dependence.compatibility/GeronimoSimpleGroup.java' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence.compatibility
/GeronimoSimpleGroup.java'
`../compatibility/org.apache.geronimo.j2g.sources.dependence.compatibility/Anybody.java' ->
`/home/user/.m2/repository/eclipse/eclipse/plugins/org.apache.geronimo.j2g.sources.dependence.compatibility
/Anybody.java'
```

A backup of your configuration file has been written to /home/user/.m2/repository/eclipse/eclipse/configuration/config.bak


```
Configuration complete.
user@lappy-486:~/j2g/bin$
```

./plugins./properties ./compatibility ECLIPSE_HOME/plugins ECLIPSE_HOME/configuration/config.ini ()

(.java .jsp) Geronimo JBoss JBoss

JBoss J2EE () Geronimo

Java (JMS) JMS Java (JDBC) JBoss Geronimo

 J2G

Java (.java)JSP (.jsp) -jspext JSP (: .html -jspext html)

:

- Geronimo API (. JBoss API)
- J2EE

Geronimo API JBoss Geronimo

JBoss	Geronimo
org.jboss.security.SimplePrincipal	org.apache.geronimo.security.realm.providers.GeronimoUserPrincipal
org.jboss.security.auth.spi.DigestCallback	org.apache.geronimo.j2g.sources.dependence.compatibility.DigestCallback
org.jboss.security.Nobody	org.apache.geronimo.j2g.sources.dependence.compatibility.Nobody
org.jboss.security.Anybody	org.apache.geronimo.j2g.sources.dependence.compatibility.Anybody
org.jboss.security.auth.spi. UsernamePasswordLoginModule	org.apache.geronimo.j2g.sources.dependence.compatibility. GeronimoLoginModule
org.jboss.security.SimpleGroup	org.apache.geronimo.j2g.sources.dependence.compatibility. GeronimoSimpleGroup

JBoss JSP

J2EE (JSP) (: JMSE)

.j2g

JBoss <ECLIPSE_HOME>/plugins/org.apache.geronimo.j2g.sources.dependence/class_analogies.properties <ECLIPSE_HOME>/plugins/org.apache.geronimo.j2g.sources.dependence/compatible_sources.properties <ECLIPSE_HOME>/plugins/org.apache.geronimo.j2g.sources.dependence.compatibility

Geronimo JAR class-analogies.properties

class_analogies.properties

class_analogies.properties

```
#
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# contributor license agreements. See the NOTICE file distributed with
# this work for additional information regarding copyright ownership.
# The ASF licenses this file to You under the Apache License, Version 2.0
# (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.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
# See the License for the specific language governing permissions and
# limitations under the License.
#
#####
# Jboss classes and it's analogies.
#####
org.jboss.security.SimplePrincipal = org.apache.geronimo.security.realm.providers.GeronimoUserPrincipal
org.jboss.security.auth.spi.DigestCallback = org.apache.geronimo.j2g.sources.dependence.compatibility.
DigestCallback
org.jboss.security.Nobody = org.apache.geronimo.j2g.sources.dependence.compatibility.Nobody
org.jboss.security.Anybody = org.apache.geronimo.j2g.sources.dependence.compatibility.Anybody
org.jboss.security.auth.spi.UsernamePasswordLoginModule = org.apache.geronimo.j2g.sources.dependence.
compatibility.GeronimoLoginModule
org.jboss.security.SimpleGroup = org.apache.geronimo.j2g.sources.dependence.compatibility.GeronimoSimpleGroup
```

compatible_sources.properties

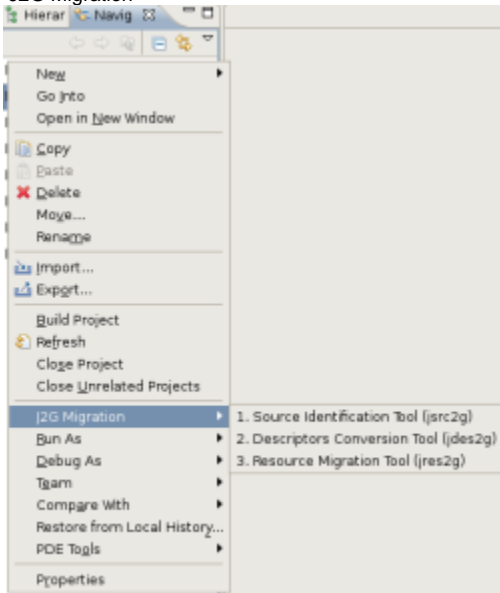
compatible_sources.properties

```
#
# Licensed to the Apache Software Foundation (ASF) under one or more
# contributor license agreements. See the NOTICE file distributed with
# this work for additional information regarding copyright ownership.
# The ASF licenses this file to You under the Apache License, Version 2.0
# (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.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
# See the License for the specific language governing permissions and
# limitations under the License.
#
#####
# List of compatibility sources
#####
org.apache.geronimo.j2g.sources.dependence.compatibility.DigestCallback
org.apache.geronimo.j2g.sources.dependence.compatibility.Nobody
org.apache.geronimo.j2g.sources.dependence.compatibility.Anybody
org.apache.geronimo.j2g.sources.dependence.compatibility.GeronimoLoginModule
org.apache.geronimo.j2g.sources.dependence.compatibility.GeronimoSimpleGroup
org.apache.geronimo.j2g.sources.dependence.compatibility.PasswordHasher
```

- Eclipse GUI

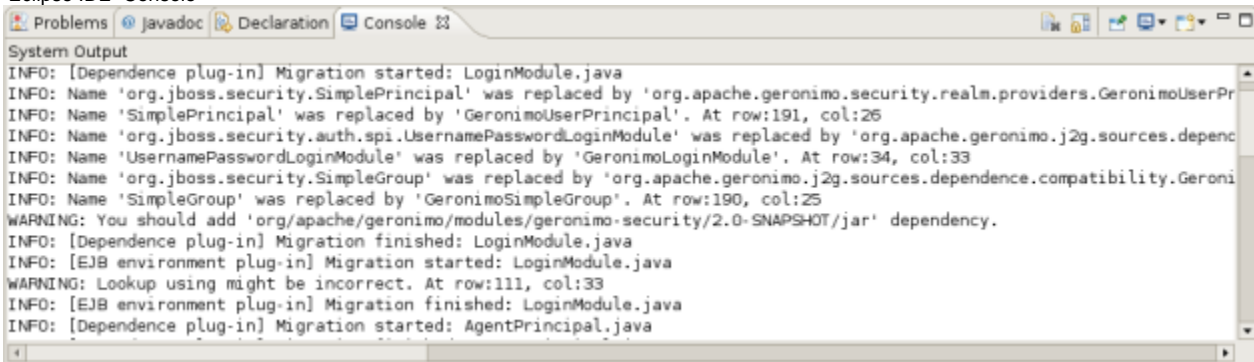
Eclipse IDE GUI

J2G Migration



J2G Migration "1. Source Identification Tool (jsrc2g)"

Eclipse IDE Console



-

j2g bin <APPLICATION> <GERONIMO_HOME> Geronimo 2.0

*nix

```
./jsrc2g.sh -src <APPLICATION>/src -web <APPLICATION>/web -geronimo <GERONIMO_HOME>
```

Windows

```
jsrc2g.bat -src <APPLICATION>\src -web <APPLICATION>\web -geronimo <GERONIMO_HOME>
```

: ,

```
jsrc2g.cmd -src <APPLICATION>/src,<APPLICATION>/src2,...<APPLICATION>/srcn -web <APPLICATION>/web -geronimo
<GERONIMO_HOME>
```

()

Geronimo :

application.xml	J2EE
jboss-app.xml	JBoss
web.xml	Web
jboss-web.xml	Web JBoss Web JBoss
ejb-jar.xml	EJB
jboss.xml	Bean JNDI JBoss JBoss ejb-jar.xml
jbosscomp-jdbc.xml	CMP- JBossCMP-JDBC
standardjbosscmp-jdbc.xml	JBossCMP-JDBC
persistence.xml	

: Geronimo OpenEJB (openejb-jar.xml) jboss.xml openejb-jar.xml J2G

(EJB 3.0)

EJB Geronimo JBoss

Annotation	JBoss Attribute JBoss	Geronimo Attribute Geronimo
Resource	mappedName	name
EJB	mappedName	name
MessageDriven	mappedName	name
Stateful	mappedName	name
Stateless	mappedName	name

JBoss



JBoss EJB

JBoss <ECLIPSE_HOME>/plugins/org.apache.geronimo.j2g.descriptors.ejb.annotation/annotation_differences.properties 11<annotation>=<attribute>:

EJB

```
<property> :: <annotation>=<mapping>
```

<annotation> EJB

Geronimo JBoss

```
<mapping> :: <j_attribute>--><g_attribute>
```

<j_attribute> JBoss <g_attribute> Geronimo

```
<mapping> :: <j_attribute>--><g_attribute>,<mapping>
```

<j_attribute> JBoss <g_attribute> Geronimo

annotation_differences.properties

annotation_differences.properties

```
#
# Licensed to the Apache Software Foundation (ASF) under one or more
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# this work for additional information regarding copyright ownership.
# The ASF licenses this file to You under the Apache License, Version 2.0
# (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.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
# See the License for the specific language governing permissions and
# limitations under the License.
#
#####
# Jboss classes and it's analogies.
#####
Resource = mappedName-->name
EJB = mappedName-->name
MessageDriven = mappedName-->name
Stateful = mappedName-->name
Stateless = mappedName-->name
```

OpenEJB

Geronimo EJB JBoss EJB Geronimo OpenEJB (EJB 3.0) persistence.xml

JBoss EJB	Geronimo OpenEJB
hibernate.connection.url	openjpa.ConnectionURL
hibernate.connection.driver_class	openjpa.ConnectionDriverName
hibernate.connection.password	openjpa.ConnectionPassword
hibernate.connection.username	openjpa.ConnectionUserName

JBoss

persistence.xml OpenEJB

JBoss <ECLIPSE_HOME>/plugins/org.apache.geronimo.j2g.descriptors.ejb/persistence_differences.properties

persistence_differences.properties

persistence_differences.properties

```
#
# Licensed to the Apache Software Foundation (ASF) under one or more
# contributor license agreements. See the NOTICE file distributed with
# this work for additional information regarding copyright ownership.
# The ASF licenses this file to You under the Apache License, Version 2.0
# (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.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
# See the License for the specific language governing permissions and
# limitations under the License.
#
#####
# Jboss persistence.xml property names and its analogies.
#####
hibernate.connection.url = openjpa.ConnectionURL
hibernate.connection.driver_class = openjpa.ConnectionDriverName
hibernate.connection.password = openjpa.ConnectionPassword
hibernate.connection.username = openjpa.ConnectionUserName
hibernate.hbm2ddl.auto = suggestion:openjpa.jdbc.SynchronizeMappings
```

X Y () <Y> = suggestion:<X>

- Eclipse GUI

Eclipse IDE GUI

J2G Migration

J2G Migration "2. Descriptors Conversion Tool (jdes2g)",
Eclipse IDE Console

-

j2g bin <APPLICATION>

*nix

```
./jdesc2g.sh <APPLICATION>
```

Windows

```
jdesc2g.bat <APPLICATION>
```

JBoss Geronimo :

- JDBC JBoss/JCA (*-ds.xml)
 - DB2
 - Derby
 - Hypersonic

- Informix
 - Microsoft SQL
 - MySQL
 - Oracle
 - PostgreSQL
 -
- JBoss MBean (*-service.xml)
 - javax.mail.Session
 - javax.jms.QueueConnectionFactory
 - javax.jms.TopicConnectionFactory
 - javax.transaction.TransactionManager
- JASS JBoss (login-config.xml) JBoss
 - org.jboss.security.auth.spi.IdentityLoginModule
 - org.jboss.security.auth.spi.UsersRolesLoginModule
 - org.jboss.security.auth.spi.LdapLoginModule
 - org.jboss.security.auth.spi.DatabaseServerLoginModule

- Eclipse GUI

Eclipse IDE GUI

J2G Migration

J2G Migration "3. Resource Migration Tool (jres2g)",
Eclipse IDE Console

-

j2g bin <APPLICATION>

***nix**

```
./jres2g.sh <APPLICATION>
```

Windows

```
jres2g.bat <APPLICATION>
```

Geronimo

Geronimo 2.0