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enterprise**

Deployment of the product UC4.Executor for J2EE/JMX on SAP NetWeaver 7.0 (2004s)

J2EE-DEP 7.0 Installation Deployment Certification

Document Version: 2.0

System where the UC4 Executor is deployed:

System N4S

Message Server

Host:	VWGSAP02
Port:	3900

Enqueue Server

Host:	VWGSAP02
Port:	3200

Database

Name:	N4S
Host:	VWGSAP02
Type:	Microsoft SQL Server (Microsoft SQL Server 2000 - 8.00.2040 (Intel X86) May 13 2005 18:33:17 Copyright (c) 1988-2003 Microsoft Corporation Enterprise Edition on Windows NT 5.2 (Build 3790: Service Pack 1))

Software Components

Name	Version	Applied
sap.com/SAP-JEECOR	7.00 SP9 (1000.7.00.9.0.20060818004900)	20060928093252
sap.com/SAP-JEE	7.00 SP9 (1000.7.00.9.0.20060810173100)	20060928092429

Instance DVEBMGS01

Host:	VWGSAP02
OS:	Windows 2003 (x86) 5.2

dispatcher

VM	
PID:	4016
Name:	Java HotSpot(TM) Server VM
Vendor:	Sun Microsystems Inc.
Version:	1.4.2_12-b03
Cluster	
Node ID:	11743600
Kernel Version:	7.00 PatchLevel
HTTP Port:	50100
HTTPS Port:	50101
P4 Port:	50104
Telnet Port:	50108

server0

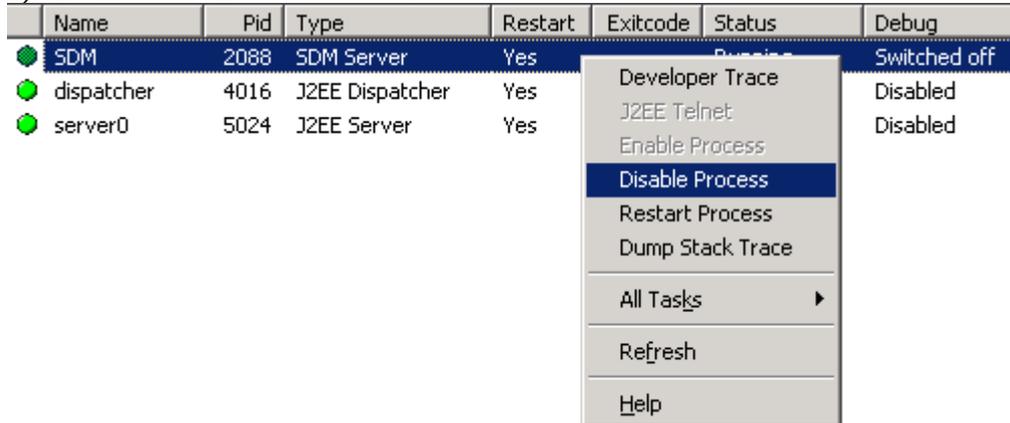
VM	
PID:	5024
Name:	Java HotSpot(TM) Server VM
Vendor:	Sun Microsystems Inc.
Version:	1.4.2_12-b03
Cluster	
Node ID:	11743650
Kernel Version:	7.00 PatchLevel

DEPLOYMENT VIA SDM (REMOTE GUI.BAT – SAP SOFTWARE DEPLOYMENT MANAGER GUI)

Remove old log files:

- 1) Open the SAP Management Console
- 2) Disable the SDM Server Process

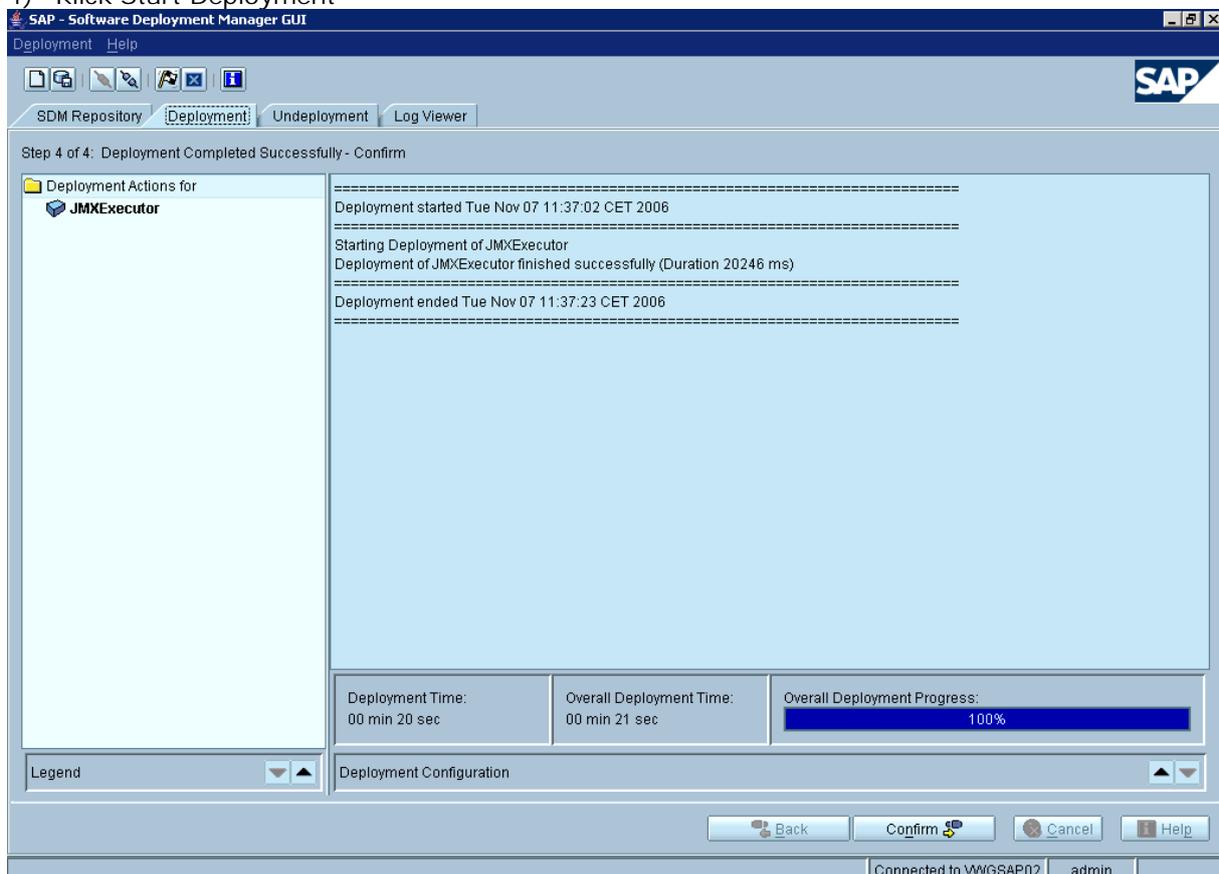
Name	Pid	Type	Restart	Exitcode	Status	Debug
SDM	2088	SDM Server	Yes		Running	Switched off
dispatcher	4016	J2EE Dispatcher	Yes			Disabled
server0	5024	J2EE Server	Yes			Disabled



- 3) Delete all Files under SDM\program\log
- 4) Enable the SDM Server Process using the SAP Management Console

Deployment Steps:

- 1) Start the user interface using RemoteGui.bat
- 2) Switch to the Deployment tab and add executor.ear
- 3) Klick Next
- 4) Klick Start Deployment



- 5) Click Confirm
- 6) The Log Viewer Tab shows the Log messages of the Deployment:

```

<!--LOGHEADER[START]/-->
<!--HELP[Manual modification of the header may cause parsing problem!]/-->
<!--LOGGINGVERSION[1.5.3.7185 - 630]/-->
<!--NAME[C:\usr\sap\N4S\DVEBMGS01\SDM\program\log\sdmlog20061107.log]/-->
<!--PATTERN[sdmlog20061107.log]/-->
<!--FORMATTER[com.sap.tc.logging.TraceFormatter(%24d %s: %m)]/-->
<!--ENCODING[Cp1252]/-->
<!--LOGHEADER[END]/-->
Nov 7, 2006 11:45:25 AM Info:
Nov 7, 2006 11:45:25 AM Info: =====
Nov 7, 2006 11:45:25 AM Info: = Starting to execute command 'server' =
Nov 7, 2006 11:45:25 AM Info: =====
Nov 7, 2006 11:45:25 AM Info: Starting SDM - Software Deployment Manager...
Nov 7, 2006 11:45:26 AM Info: tc/SL/SDM/SDM/sap.com/SAP
AG/7.0009.20060817110748.0000
Nov 7, 2006 11:45:28 AM Info: SDM operation mode successfully set to:
Integrated
Nov 7, 2006 11:45:29 AM Info: JStartupFramework is requesting to start the SDM
Server.
Nov 7, 2006 11:45:29 AM Info: Start the SDM Server integrated in the
JStartupFramework.
Nov 7, 2006 11:45:30 AM Info: Initializing Network Manager (50117)
Nov 7, 2006 11:45:30 AM Info: Starting SDM Server listening on port 50118
Nov 7, 2006 11:45:30 AM Info: SDM started successfully.
Nov 7, 2006 11:48:46 AM Info: Opened client connection to
VWGSAP02.sbb01.spc.global (IP address
VWGSAP02.sbb01.spc.global/192.168.115.82, remote port 2760)
Nov 7, 2006 11:48:46 AM Info: Request for Logon as admin accepted
Nov 7, 2006 11:49:30 AM Info: Loading archive 'C:\executor.ear'
Nov 7, 2006 11:49:41 AM Info: Actions per selected component:
Nov 7, 2006 11:49:41 AM Info: Initial deployment: Selected development
component 'JMXExecutor'/'uc4.com'/'localhost'/'2006.11.07.10.36.00'/'0' will be
deployed.
Nov 7, 2006 11:49:46 AM Info: Saved current Engine state.
Nov 7, 2006 11:49:47 AM Info: Starting: Initial deployment: Selected
development component
'JMXExecutor'/'uc4.com'/'localhost'/'2006.11.07.10.36.00'/'0' will be deployed.
Nov 7, 2006 11:49:47 AM Info: SDA to be deployed:
C:\usr\sap\N4S\DVEBMGS01\SDM\root\origin\uc4.com\JMXExecutor\localhost\0\2006.11
.07.10.36.00\executor.ear
Nov 7, 2006 11:49:47 AM Info: Software type of SDA: J2EE
Nov 7, 2006 11:49:47 AM Info: ***** Begin of SAP J2EE Engine Deployment (J2EE
Application) *****
Nov 7, 2006 11:49:59 AM Info: Begin of log messages of the target system:
06/11/07 11:49:48 - *****
06/11/07 11:49:50 - Start updating EAR file...
06/11/07 11:49:50 - start-up mode is lazy
06/11/07 11:49:52 - EAR file updated successfully for 1266ms.
06/11/07 11:49:52 - Start deploying ...

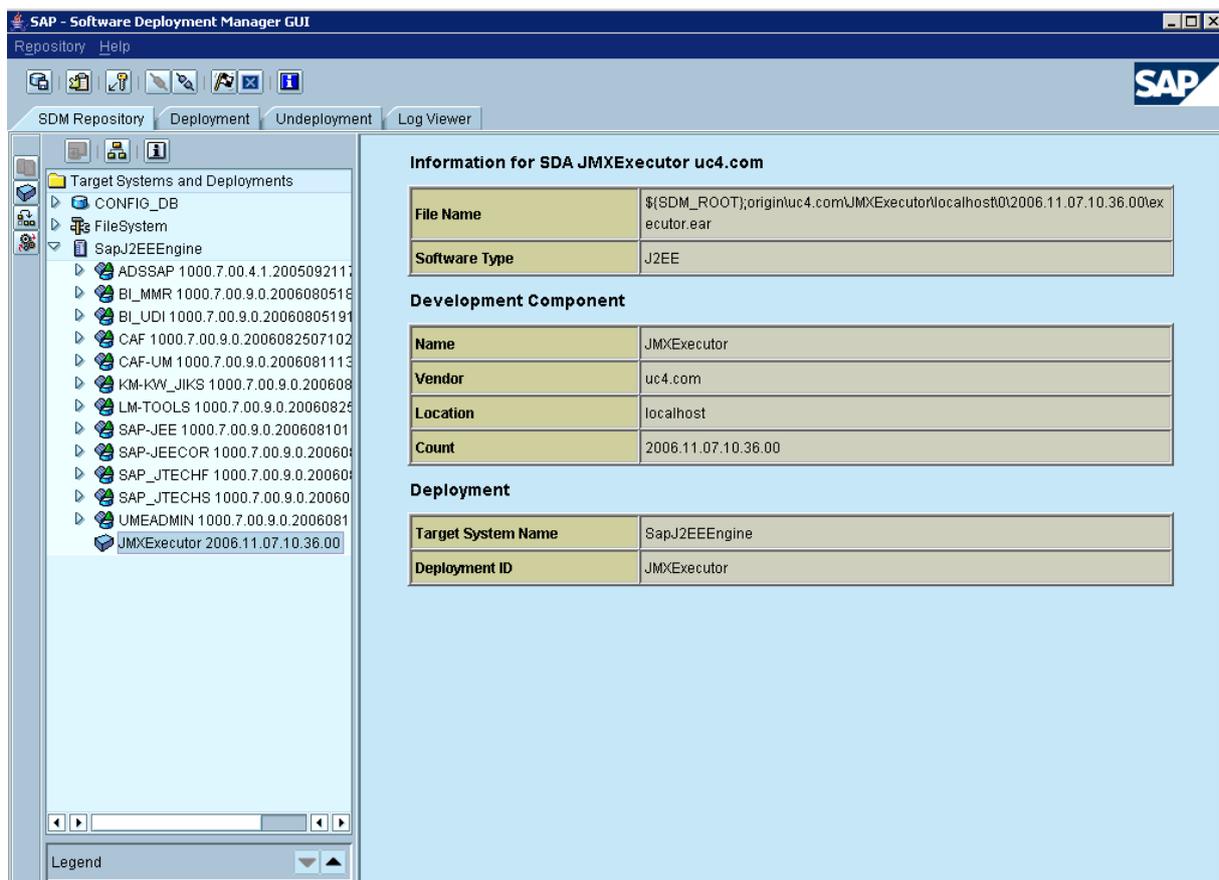
```

```

06/11/07 11:49:53 - EAR file uploaded to server for 719ms.
06/11/07 11:49:57 - Successfully deployed. Deployment took 4487ms.
06/11/07 11:49:57 - Application : uc4.com/JMXExecutor
06/11/07 11:49:57 -
06/11/07 11:49:57 - com.uc4.ex.jmx - LOGGING CONFIGURATION
06/11/07 11:49:57 - /Applications/UC4 - LOGGING CONFIGURATION
06/11/07 11:49:57 - executor - WEB
06/11/07 11:49:57 - *****
Nov 7, 2006 11:49:59 AM Info: End of log messages of the target system.
Nov 7, 2006 11:49:59 AM Info: ***** End of SAP J2EE Engine Deployment (J2EE
Application) *****
Nov 7, 2006 11:49:59 AM Info: Finished successfully: development component
'JMXExecutor'/'uc4.com'/'localhost'/'2006.11.07.10.36.00'/'0'
Nov 7, 2006 11:49:59 AM Info: Starting to save the repository
Nov 7, 2006 11:50:00 AM Info: Finished saving the repository
Nov 7, 2006 11:50:01 AM Info: J2EE Engine is in same state (online/offline) as
it has been before this deployment process.
Nov 7, 2006 11:50:08 AM Info: Undeployment Process is cancelled

```

7) The JMX Executor is also shown in the Repository Tab:



The Count ID is 2006.11.07.10.36.00

DEPLOYMENT VIA COMMAND LINE ALSO KNOWN AS SCRPT FILE

- 1) Create a Deployer.xml file with the following content:

```
<?xml version='1.0' encoding='UTF-8'?>
<!DOCTYPE deploy-manager-config [
  <!ELEMENT deploy-manager-config (version-id, project-dir?, deployable-object,
  element*, login-info, user-role-mapping?, server-components-xml?, library-info?,
  supports, deployment-properties?, repl-var-properties?, log-file?)>
  <!ELEMENT version-id (#PCDATA)>
  <!ELEMENT project-dir (#PCDATA)>
  <!ELEMENT deployable-object (ear-file|j2ee-module)>
  <!ATTLIST deployable-object action-type (deploy|update) #REQUIRED>
  <!ELEMENT ear-file (ear-path, display-name?, altdd*)>
  <!ELEMENT ear-path (#PCDATA)>
  <!ELEMENT display-name (#PCDATA)>
  <!ELEMENT j2ee-module (archive-path, altdd*)>
  <!ELEMENT archive-path (#PCDATA)>
  <!ATTLIST j2ee-module container (appclient|connector|EJB_Container|servlet_jsp)
  #REQUIRED>
  <!ELEMENT element (entry-name, context-root?, altdd*, web-service-related?)>
  <!ELEMENT context-root (#PCDATA)>
  <!ELEMENT altdd (pathname, entry-name)>
  <!ATTLIST altdd use-alternative (yes|no) #REQUIRED>
  <!ELEMENT pathname (#PCDATA)>
  <!ELEMENT entry-name (#PCDATA)>
  <!ELEMENT web-service-related (web-service?, web-service-client?)>
  <!ELEMENT web-service (altdd?, wsdl-files*)>
  <!ELEMENT wsdl-files (pathname, entry-name)>
  <!ELEMENT web-service-client (altdd?)>
  <!ELEMENT login-info (host, port, transport-protocol*, user-name, user-
  password)>
  <!ELEMENT host (#PCDATA)>
  <!ELEMENT port (#PCDATA)>
  <!ELEMENT transport-protocol (#PCDATA)>
  <!ELEMENT user-name (#PCDATA)>
  <!--user-password can content PCDATA for background compatibility. psw-file is
  the name of the file with the encrypted password. If you specify more than 1
  elements the first element will be taken. If specify zero elements password will
  be empty String. -->
  <!ELEMENT user-password (#PCDATA | psw-file)*>
  <!ELEMENT psw-file (#PCDATA)>
  <!ELEMENT user-role-mapping (role-name+)>
  <!ELEMENT role-name (#PCDATA | mapping)*>
  <!ELEMENT mapping (name, type)>
  <!ELEMENT name (#PCDATA)>
  <!ELEMENT type (#PCDATA)>
  <!ELEMENT server-components-xml (#PCDATA)>
  <!ELEMENT library-info (library*, reference*)>
```

```

<!ELEMENT library (lib-name, lib-jar+)>
<!ELEMENT lib-name (#PCDATA)>
<!ELEMENT lib-jar (#PCDATA)>
<!ATTLIST lib-jar server-map-name CDATA #REQUIRED>
<!ELEMENT reference (from-loader, to-loader+)>
<!ELEMENT from-loader (#PCDATA)>
<!ELEMENT to-loader (#PCDATA)>
<!ELEMENT supports (support+)>
<!ELEMENT support (#PCDATA)>
<!ELEMENT repl-var-properties (property*)>
<!ELEMENT deployment-properties (property*)>
<!ELEMENT property (#PCDATA)>
<!ELEMENT log-file (#PCDATA)>
]>
<deploy-manager-config>
  <version-id>
</version-id>
  <project-dir>C:\tmp</project-dir>
  <deployable-object action-type="deploy">
    <ear-file>
      <ear-path>C:\executor.ear</ear-path>
      <altdd use-alternative="no">
        <pathname>\JMXXecutor\deployer\application.xml</pathname>
        <entry-name>META-INF/application.xml</entry-name>
      </altdd>
      <altdd use-alternative="no">
        <pathname>\JMXXecutor\deployer\application-j2ee-engine.xml</pathname>
        <entry-name>META-INF/application-j2ee-engine.xml</entry-name>
      </altdd>
    </ear-file>
  </deployable-object>
  <element>
    <entry-name>executor.war</entry-name>
    <context-root>executor</context-root>
    <altdd use-alternative="no">
      <pathname>\JMXXecutor\deployer\jar\executor_war\web.xml</pathname>
      <entry-name>WEB-INF/web.xml</entry-name>
    </altdd>
    <altdd use-alternative="no">
      <pathname>\JMXXecutor\deployer\jar\executor_war\web-j2ee-
engine.xml</pathname>
      <entry-name>WEB-INF/web-j2ee-engine.xml</entry-name>
    </altdd>
  </element>
  <login-info>
    <host>vwgsap02</host>
    <port>50104</port>
    <transport-protocol>None</transport-protocol>
    <user-name>J2EE_ADMIN</user-name>

```

```

    <user-password>*****</user-password>
</login-info>
<library-info/>
<supports>
    <support>p4</support>
    <support>iiop</support>
</supports>
<deployment-properties/>
<repl-var-properties/>
<log-file>JMX_Executor_log.txt</log-file>
</deploy-manager-config>

```

- 2) Modify the XML file: The <ear-path> element should point to the place where the executor.ear file resides. The <login-info> element contains the connection information to the J2EE Engine.
- 3) Open a console window and deploy the executor.ear using the deploymanager

```

C:\usr\sap\N4S\DUFBMGS01\j2ee\deploying>deploymanager Deployer.xml
ConfigurationManager: found jar for secure store C:\usr\sap\N4S\DUFBMGS01\j2ee\d
eploying\.....\SYS\global\security\lib\tools\iaik_jce.jar
ConfigurationManager: found jar for secure store C:\usr\sap\N4S\DUFBMGS01\j2ee\d
eploying\.....\SYS\global\security\lib\tools\iaik_jsse.jar
ConfigurationManager: found jar for secure store C:\usr\sap\N4S\DUFBMGS01\j2ee\d
eploying\.....\SYS\global\security\lib\tools\iaik_smime.jar
ConfigurationManager: found jar for secure store C:\usr\sap\N4S\DUFBMGS01\j2ee\d
eploying\.....\SYS\global\security\lib\tools\iaik_ssl.jar
ConfigurationManager: found jar for secure store C:\usr\sap\N4S\DUFBMGS01\j2ee\d
eploying\.....\SYS\global\security\lib\tools\w3c_http.jar
Start updating EAR file...
06/11/07 12:16:54 - Start updating EAR file...
start-up mode is lazy
06/11/07 12:16:54 - start-up mode is lazy
EAR file updated successfully for 1263ms.
06/11/07 12:16:55 - EAR file updated successfully for 1263ms.
Start deploying ...
06/11/07 12:16:55 - Start deploying ...
dm_msg_0006
EAR file uploaded to server for 1264ms.
06/11/07 12:16:57 - EAR file uploaded to server for 1264ms.
Successfully deployed. Deployment took 2870ms.
06/11/07 12:17:00 - Successfully deployed. Deployment took 2870ms.
Application : uc4.com/UC4 Executor for JMX
06/11/07 12:17:00 - Application : uc4.com/UC4 Executor for JMX

06/11/07 12:17:00 -
com.uc4.ex.jmx - LOGGING CONFIGURATION
06/11/07 12:17:00 - com.uc4.ex.jmx - LOGGING CONFIGURATION
/Applications/UC4 - LOGGING CONFIGURATION
06/11/07 12:17:00 - /Applications/UC4 - LOGGING CONFIGURATION
executor - WEB
06/11/07 12:17:00 - executor - WEB

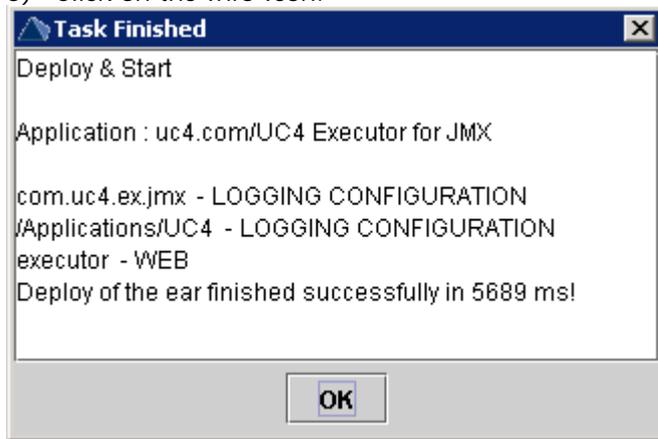
C:\usr\sap\N4S\DUFBMGS01\j2ee\deploying>_

```

- 4) Start the Application using Visual Administrator

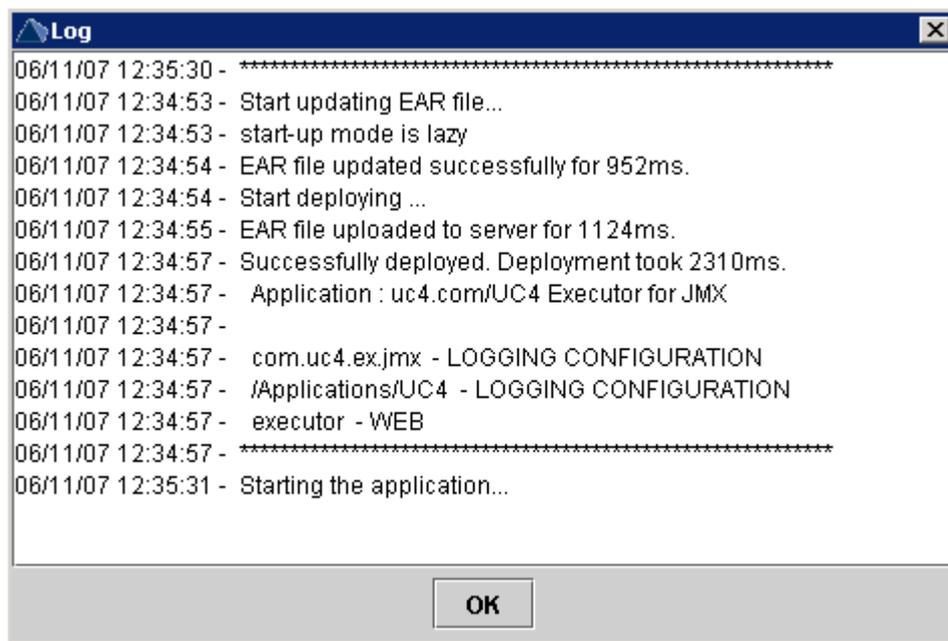
DEPLOYMENT VIA VISUAL ADMINISTRATOR (GO.BAT)

- 1) Start Visual Administrator
- 2) Go to Server → Services → Deploy and click on Deploy & Start
- 3) Select the executor.ear and click OK
- 4) Click OK again to start the deployment
- 5) Click on the Info Icon:



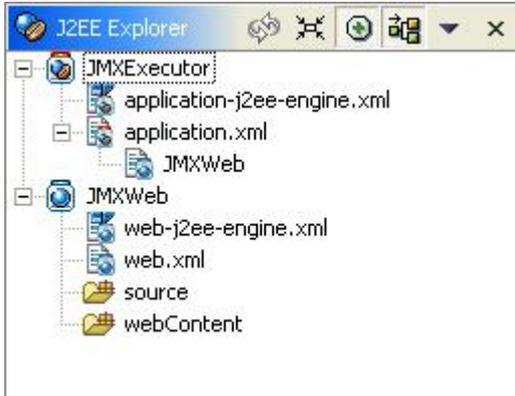
DEPLOYMENT VIA DEPLOY TOOL (DEPLOYTOOL.BAT)

- 1) Start the Deploy Tool using DeployTool.bat
- 2) Create a new Project
- 3) Click on the Deployer tab
- 4) Choose Deploy → EAR → Load Ear and select the executor.ear file
- 5) Select Deploy → Connect and enter the connection information
- 6) Select Deploy → Deployment → Deploy Ear to start deployment
- 7) Click Yes to Start the Application
- 8) Click on the View Log File Icon:

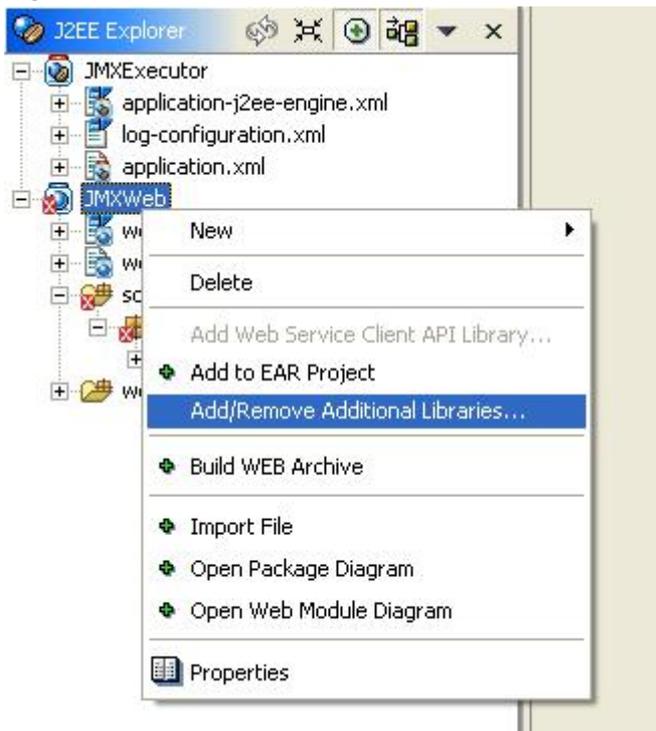


DEPLOYMENT VIA SAP NETWEAVER DEVELOPER STUDIO WITH SOURCE FILES (ALSO CALLED IMPORT)

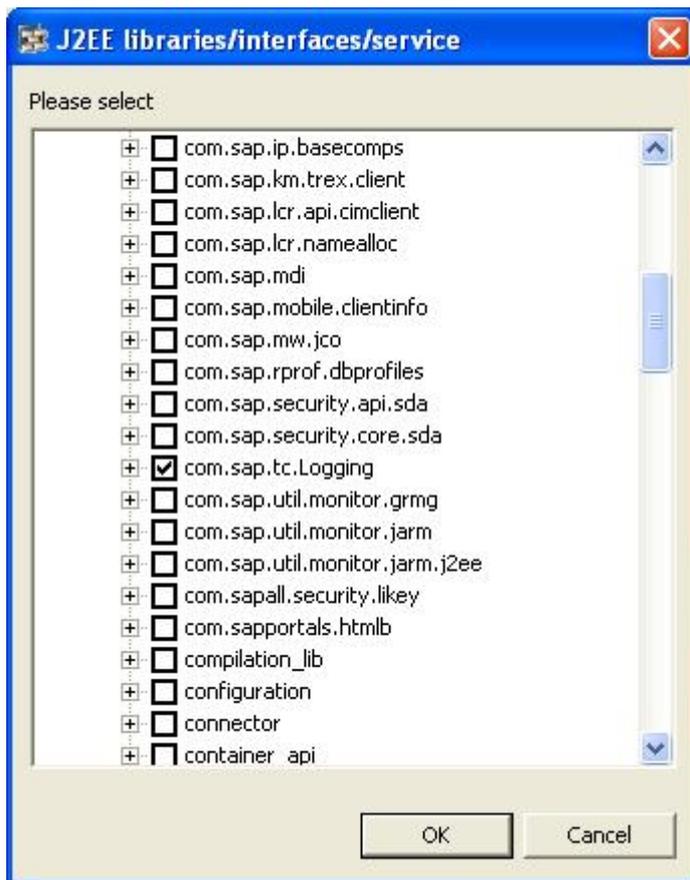
- 1) Start the SAP Netweaver Develop Studio 7.0 SP 9
- 2) Switch to the J2EE Explorer
- 3) Click File → New → Enterprise Application Project and enter JMXExecutor as the name
- 4) Click File → New → Web Module Project and enter JMXWeb as the name
- 5) Right Click on JMXWeb and select Add to EAR Project, select JMXExceutor and click OK



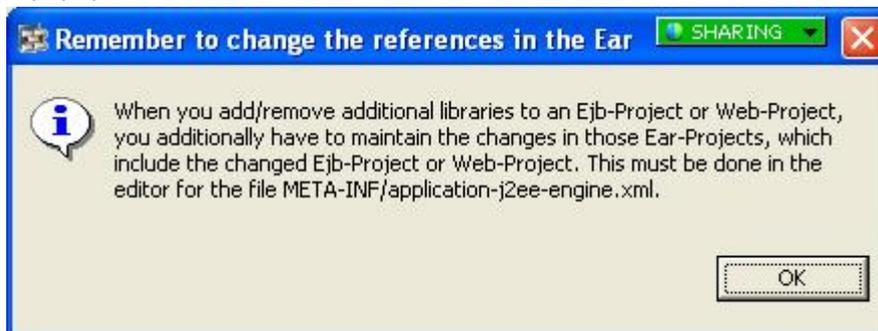
- 6) Change to the Package Explorer and copy the Source files into the source folder of the JMXWeb Project
- 7) Right click on JMXWeb and select Add/Remove Additional Libraries...



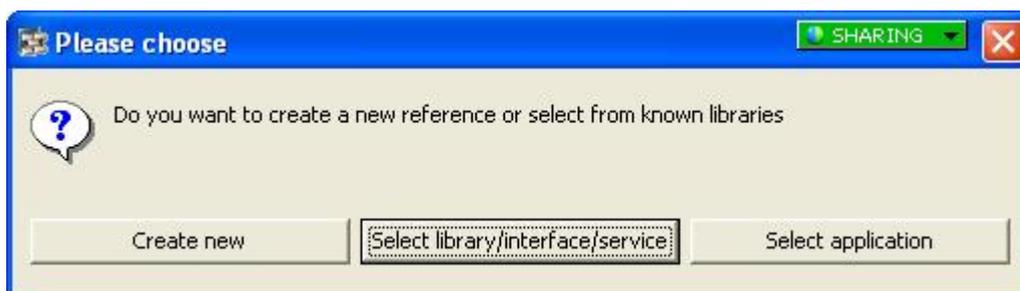
- 8) Select com.sap.tc.Logging and jmx



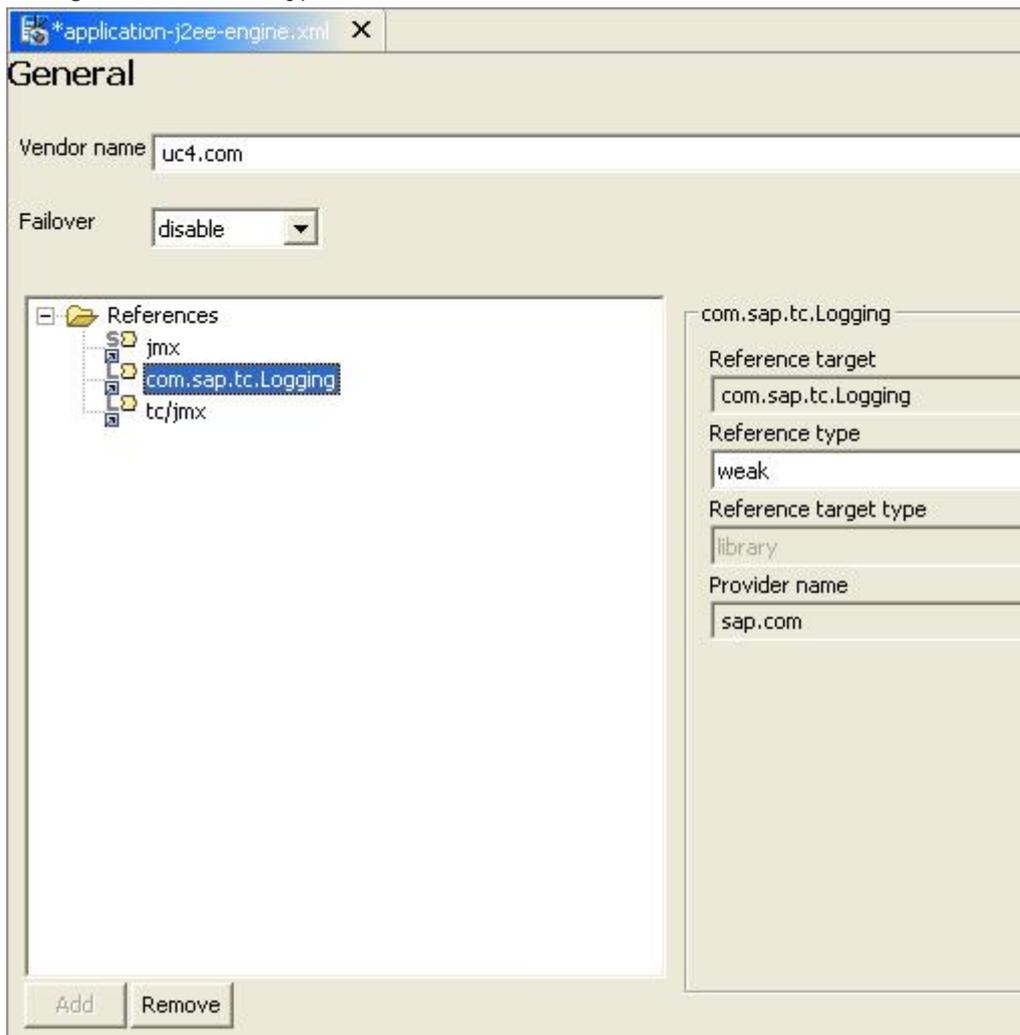
- 9) A popup is shown:



- 9) Double click on application-j2ee-engine.xml → The Editor for this Deployment-Descriptor opens
10) Change the Vendor to uc4.com
11) Click Add:

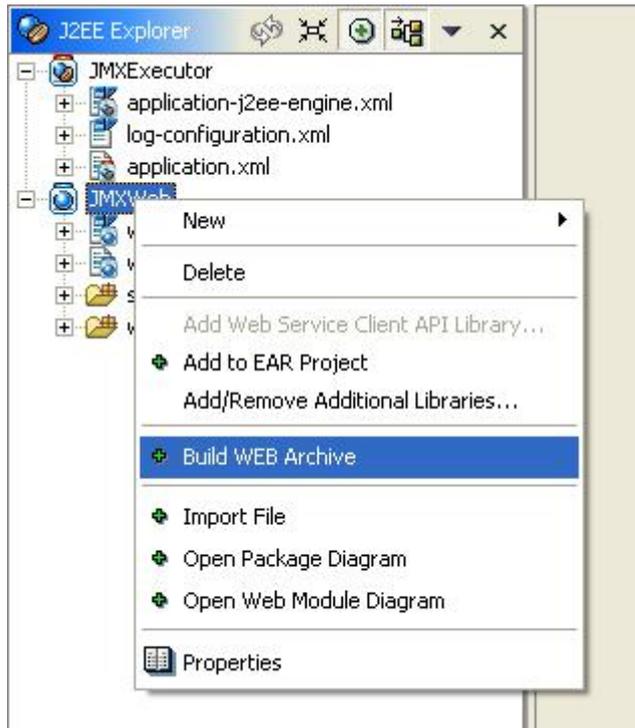


- 12) Click on "Select library/interface/service"
- 13) Select com.sap.tc.Logging, tc/jmx and jmx and click OK
- 14) Change the reference type to weak for all references

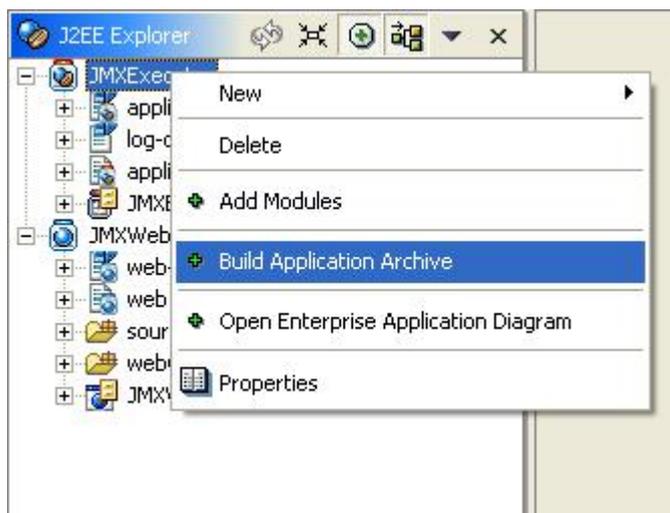


- 15) Click save
- 16) Add logging.jar to the buildpath
- 10) Replace the generated web.xml with the web.xml which should be used for deployment
- 11) Add log-configuration.xml to the META-INF folder

12) Right click on JMXWeb and select build WEB Archive → A file called JMXWeb.war is created



13) Right click on JMXExecutor and select Build Application Archive → A file called JMXExecutor.ear is created



13) Right click on JMXExecutor.ear and select Deploy to J2EE engine

14) Log message 1 in the Deploy Output View:

```
13.11.2006 09:56:31 /userOut/deploy (com.sap.ide.eclipse.sdm.threading.DeployThreadManager) [Thread[Deploy Thread,5,main]]
INFO:
[001]Finished Deployment
```

Settings

SDM host : VWGSAP02

SDM port : 50118

URL to deploy : file:/C:/DOCUME~1/ANG~1/SBB/LOCALS~1/Temp/temp9155JMXExecutor.ear

Result

=> successfully deployed : file:/C:/DOCUME~1/ANG~1/SBB/LOCALS~1/Temp/temp9155JMXExecutor.ear

15) Log message 2 in the Deploy Output View:

13.11.2006 09:56:31 /userOut/deploy (com.sap.ide.eclipse.sdm.threading.DeployThreadManager) [Thread[Deploy Thread,5,main]]
INFO:
[001]Additional log information about the deployment

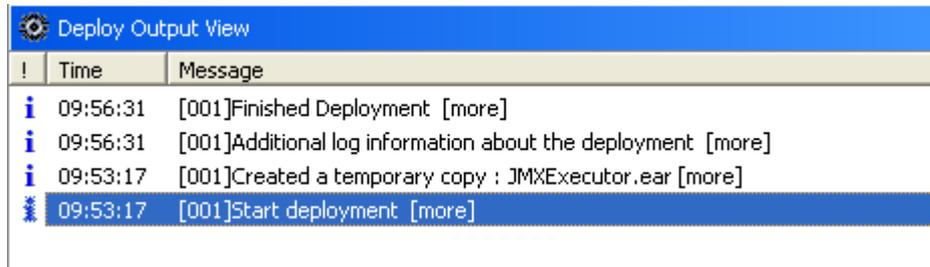
```
<!--LOGHEADER[START]/-->
<!--HELP[Manual modification of the header may cause parsing problem!]/-->
<!--LOGGINGVERSION[1.5.3.7185 - 630]/-->
<!--NAME[C:\usr\sap\N4S\DVEBMGS01\SDM\program\log\sdmcl20061113085337.log]/-->
<!--PATTERN[sdmcl20061113085337.log]/-->
<!--FORMATTER[com.sap.tc.logging.TraceFormatter(%24d %s: %m)]/-->
<!--ENCODING[Cp1252]/-->
<!--LOGHEADER[END]/-->
Nov 13, 2006 9:53:38 AM Info: ----- Starting deployment -----
Nov 13, 2006 9:53:38 AM Info: Error handling strategy: OnErrorStop
Nov 13, 2006 9:53:38 AM Info: Prerequisite error handling strategy: OnPrerequisiteErrorStop
Nov 13, 2006 9:53:38 AM Info: Update strategy: UpdateAllVersions
Nov 13, 2006 9:53:38 AM Info: Starting deployment prerequisites:
Nov 13, 2006 9:54:28 AM Info: Loading selected archives...
Nov 13, 2006 9:54:28 AM Info: Loading archive 'C:\usr\sap\N4S\DVEBMGS01\SDM\program\temp\temp9155JMExecutor.ear'
Nov 13, 2006 9:54:30 AM Info: Selected archives successfully loaded.
Nov 13, 2006 9:54:30 AM Info: Actions per selected component:
Nov 13, 2006 9:54:30 AM Info: Update: Selected development component 'JMExecutor'/uc4.com/'localhost'/2006.11.13.09.50.30/'0'
updates currently deployed development component 'JMExecutor'/uc4.com/'localhost'/2006.11.07.10.36.00/'0'.
Nov 13, 2006 9:54:30 AM Info: Ending deployment prerequisites. All items are correct.
Nov 13, 2006 9:54:30 AM Info: Saved current Engine state.
Nov 13, 2006 9:54:30 AM Info: Starting: Update: Selected development component
'JMExecutor'/uc4.com/'localhost'/2006.11.13.09.50.30/'0' updates currently deployed development component
'JMExecutor'/uc4.com/'localhost'/2006.11.07.10.36.00/'0'.
Nov 13, 2006 9:54:30 AM Info: SDA to be deployed:
C:\usr\sap\N4S\DVEBMGS01\SDM\root\origin\uc4.com\JMExecutor\localhost\0\2006.11.13.09.50.30\temp9155JMExecutor.ear
Nov 13, 2006 9:54:30 AM Info: Software type of SDA: J2EE
Nov 13, 2006 9:54:36 AM Info: ***** Begin of SAP J2EE Engine Deployment (J2EE Application) *****
Nov 13, 2006 9:56:29 AM Info: Begin of log messages of the target system:
06/11/13 09:54:38 - *****
06/11/13 09:55:46 - Start updating EAR file...
06/11/13 09:55:46 - start-up mode is lazy
06/11/13 09:55:47 - EAR file updated successfully for 983ms.
06/11/13 09:55:47 - Start updating...
06/11/13 09:55:53 - EAR file uploaded to server for 2855ms.
06/11/13 09:56:28 - Successfully updated. Update took 34901ms.
06/11/13 09:56:28 - Deploy Service status:
06/11/13 09:56:28 - Application : uc4.com/JMExecutor
06/11/13 09:56:28 -
06/11/13 09:56:28 - com.uc4.ex.jmx - LOGGING CONFIGURATION
06/11/13 09:56:28 - /Applications/UC4 - LOGGING CONFIGURATION
06/11/13 09:56:28 - JMXWeb - WEB
06/11/13 09:56:28 - *****
Nov 13, 2006 9:56:29 AM Info: End of log messages of the target system.
Nov 13, 2006 9:56:29 AM Info: ***** End of SAP J2EE Engine Deployment (J2EE Application) *****
Nov 13, 2006 9:56:29 AM Info: Finished successfully: development component
'JMExecutor'/uc4.com/'localhost'/2006.11.13.09.50.30/'0'
Nov 13, 2006 9:56:29 AM Info: Starting to save the repository
Nov 13, 2006 9:56:30 AM Info: Finished saving the repository
Nov 13, 2006 9:56:30 AM Info: J2EE Engine is in same state (online/offline) as it has been before this deployment process.
Nov 13, 2006 9:56:30 AM Info: ----- Deployment was successful -----
```

16) Log message 3 in the Deploy Output View:

13.11.2006 09:53:17 /userOut/deploy (com.sap.ide.eclipse.sdm.threading.DeployThreadManager) [Thread[Deploy Thread,5,main]]
INFO:
[001]Created a temporary copy : JMExecutor.ear
The url of the temporary copy (which will be deployed) is file:/C:/DOCUME~1/ANG~1/SBB/LOCALS~1/Temp/temp9155JMExecutor.ear
The copy will be deleted again after deployment.

17) Log message 4 in the Deploy Output View:

```
13.11.2006 09:53:17 /userOut/deploy (com.sap.ide.eclipse.sdm.threading.DeployThreadManager) [Thread[main,5,main]] INFO:
[001]Start deployment
    JMXExecutor.ear (C:\Documents and Settings\ang.SBB01\Documents\SAP\workspace\JMXExecutor\JMXExecutor.ear)
```



DEPLOYMENT VIA JSPM (JAVA SUPPORT PACKAGE MANAGER)

JSPM cannot be used to deploy a single *.EAR file.

If the *.EAR file is placed inside an SCA (Software Component Archive) then JSPM is able to deploy it.

Step 1: Create a SCA from an EAR file

The chapter [Creation of SDA and SCA Archives](#) gives an overview about the different archive types (SDA, SCA, EAR, PAR, EPA, ...)

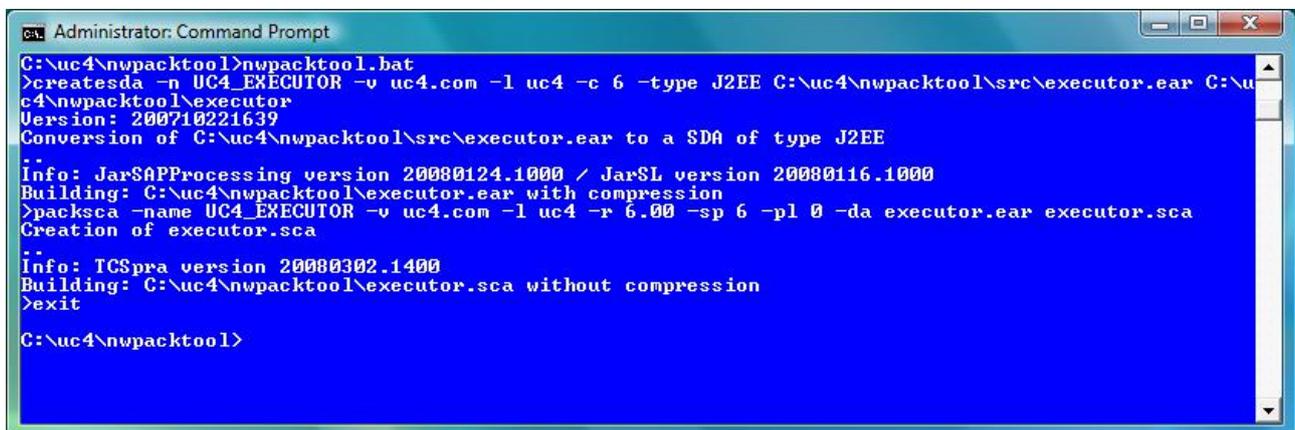
The SAP note 1223957 contains an attachment which can be used to create a *.SCA file from the EAR file.

- Install the attachment of note 1223957 as described in the note
- Place the executor.ear file in a folder called src
- Execute the command: "nwpacktool" and enter the following commands:

```
createsda -n UC4_EXECUTOR -v uc4.com -l uc4 -c 6 -type J2EE
C:\uc4\nwpacktool\src\executor.ear C:\uc4\nwpacktool\executor
```

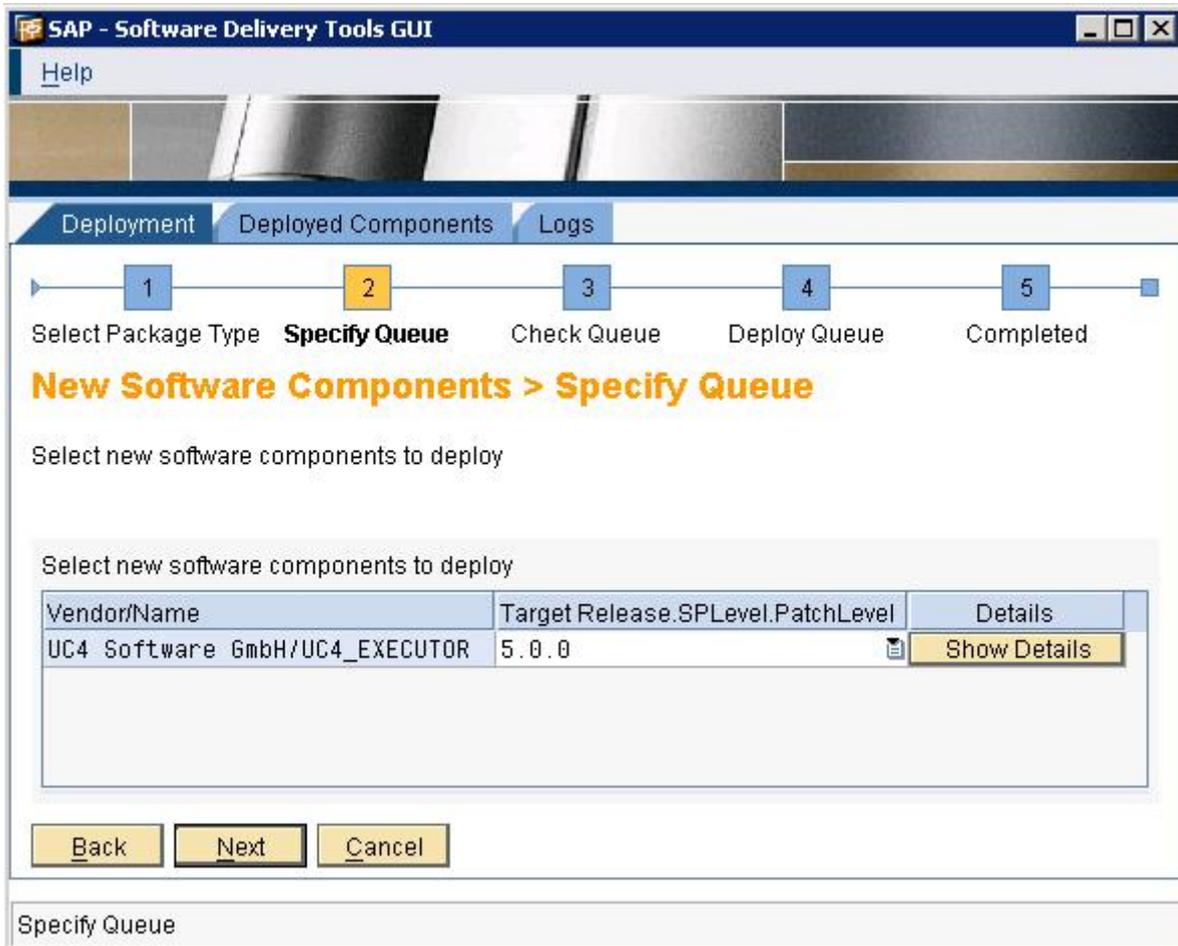
```
packsca -name UC4_EXECUTOR -v uc4.com -l uc4 -r 6.00 -sp 6 -pl 0 -da executor.ear
executor.sca
```

- A file called executor.sca does now exist in the current directory.

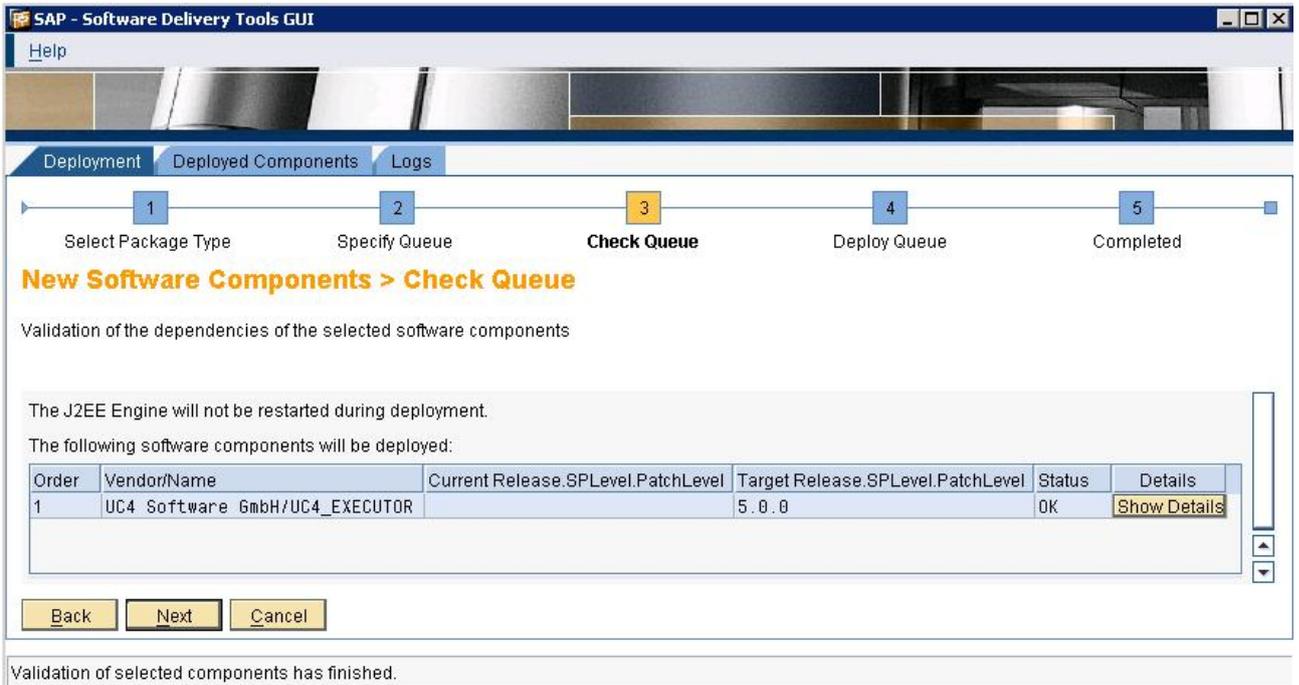


Step 2: Deploy SCA file via JSPM

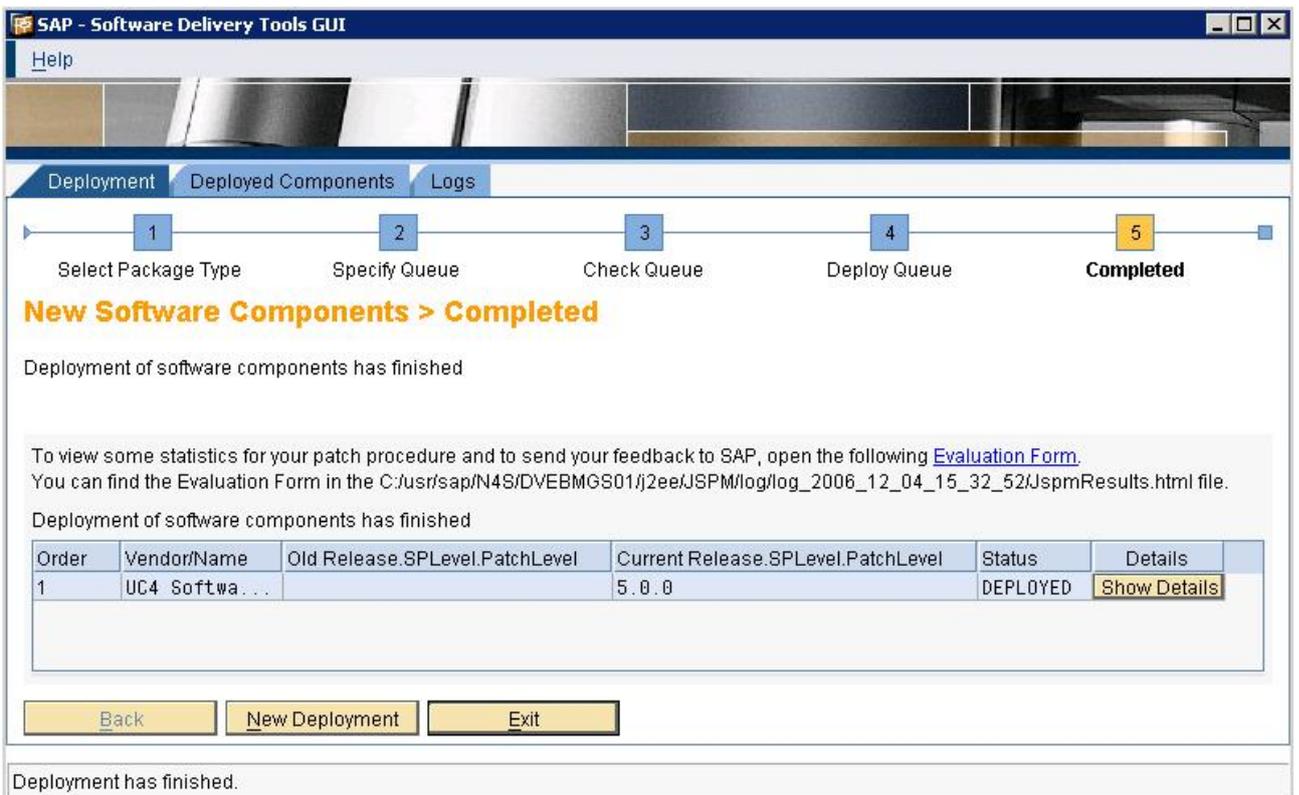
- 1) Logon as SIDadm
- 2) Copy the file executor.sca in the EPS/in directory. Start JSPM and enter the SDM password
- 3) Select "New Software Components" and click next



- 4) Click next



- 5) Click next
- 6) The status changes from SCHEDULED to IN PROGRESS to DEPLOYED



- 7) Click Exit

ADD THE UC4 EXECUTOR TO THE SAP SYSTEM LANDSCAPE DIRECTORY (SLD)

- 1) Log on to the System Landscape Directory
- 2) Click on Products
- 3) Click on New Product Version
- 4) Enter UC4:global as name, uc4.com as vendor and global05 as version:



[Home](#) [Administration](#) [Log Off](#) [Help](#) [About](#)

Add Non-SAP Product to Software Catalog

Name: * 

Vendor: * 

Version: * 

- 5) Click Create

- 6) Enter "Executor" as the name of the Software Unit and click create again

SAP NetWeaver™ System Landscape Directory

[Home](#) [Administration](#) [Log Off](#) [Help](#) [About](#)

Add New Non-SAP Software Unit

Product: UC4:global , global05 of uc4.com

Vendor: uc4.com

Version: global05

Name: * Executor

- 7) Enter "JMXXecutor" as name of the Software Component
- 8) Enter global05 as version of the Software Component
- 9) Change the production state to released:

SAP NetWeaver™ System Landscape Directory

[Home](#) [Administration](#) [Log Off](#) [Help](#) [About](#)

Add Software Component to Non-SAP Product

Product: * UC4:global , global05 of uc4.com

Unit: * UC4:global global05 : Executor

Vendor: * uc4.com

Name: * JMXXecutor

Version: * global05

Production State: released

- 10) Click Create
- 11) The Product is now shown in the Software Catalog:

UC4:global , global05 of uc4.com

[General](#) [Software Units](#) [Support Package Stacks](#) [Installed Systems](#)

Vendor: uc4.com

Name: UC4:global

Version: global05

UC4:global , global05 of uc4.com



SAP LOGGING

If the JMX Executor is deployed on SAP Netweaver it uses the SAP Logging Framework to write log messages in addition to the already existing logging mechanism.

The SAP Logging classes are described under <http://help.sap.com/javadocs/NW04S/current/index.html>

ENABLE SAP LOGGING FOR THE UC4 EXECUTOR

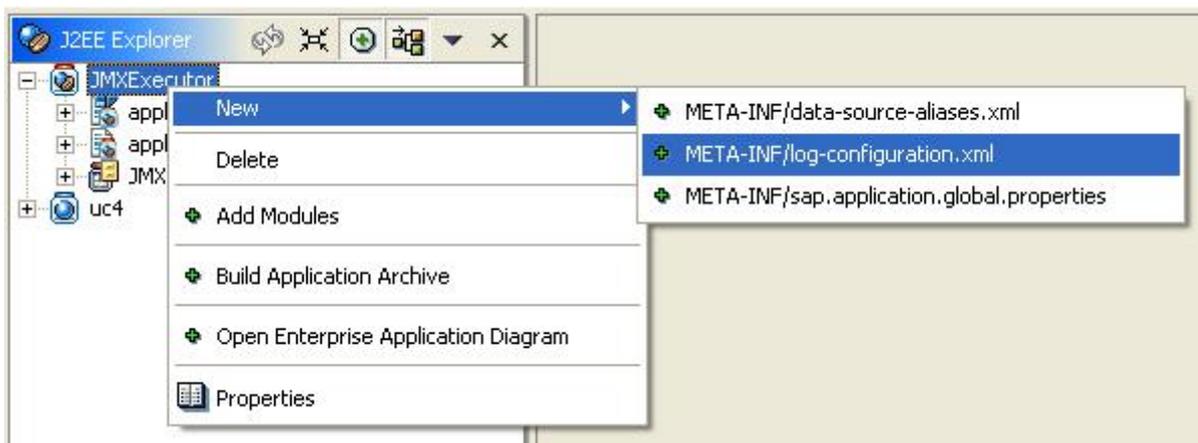
Two steps are necessary to use the SAP Logging:

- 1) Add a log-configuration.xml to the descriptors in the META-INF directory.
- 2) Adapt the coding to log and trace to Categories and Locations

PART 1: CREATE A LOG-CONFIGURATION.XML FILE

The log-configuration.xml can be created using the SAP Netweaver Developer Studio.

- 1) Right click on the Enterprise Application Project, New → META-INF/log-configuration.xml



- 2) Switch to the Log Destination tab
- 3) Click "Add" to add a new Log Destination
- 4) Use UC4Log as the Destination name
- 5) Enter a pattern for the log file name and a limit an count:

UC4Log

Destination name UC4Log

Type FileLog

Pattern ./log/applications/UC4ExecutorLog%g.log

Encoding

Severity ALL

Limit 800000

Count 3

Formatter

Without formatter

Formatter Reference

Anonymous Formatter

- 6) Click save
- 7) Add a second destination called UC4Trace for the trace messages:

UC4Trace

Destination name UC4Trace

Type FileLog

Pattern ./log/applications/UC4ExecutorTrace%g.trc

Encoding

Severity ALL

Limit 800000

Count 3

Formatter

Without formatter

Formatter Reference

Anonymous Formatter

- 8) Click save
- 9) Switch to the Log Controller tab and click "Add" to add a new Log Controller

10) Enter /Applications/UC4 as name

The screenshot shows a configuration dialog for a Log Controller. The title bar reads "/Applications/UC4". The fields are as follows:

- Controller name: /Applications/UC4
- Bundle name: (empty)
- Effective severity: ALL (dropdown)
- Minimum severity: ALL (dropdown)
- Maximum severity: ALL (dropdown)
- Relative Severity section:
 - Relative Severity Name: (empty)
 - Relative Severity Value: (empty dropdown)

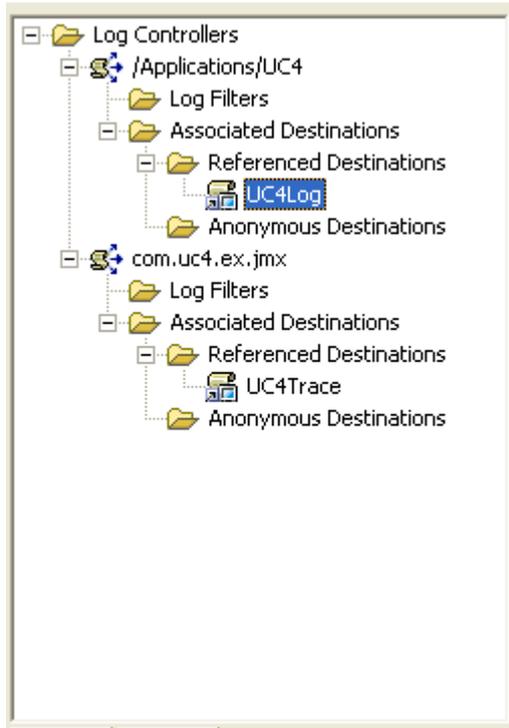
11) Click save

12) Add a new Log Controller called com.uc4.ex.jmx for Trace messages

The screenshot shows a configuration dialog for a Log Controller. The title bar reads "com.uc4.ex.jmx". The fields are as follows:

- Controller name: com.uc4.ex.jmx
- Bundle name: (empty)
- Effective severity: ALL (dropdown)
- Minimum severity: ALL (dropdown)
- Maximum severity: ALL (dropdown)
- Relative Severity section:
 - Relative Severity Name: (empty)
 - Relative Severity Value: (empty dropdown)

13) Associate the existing Destinations to the Log Controllers:



The generated [log-configuration.xml](#) has the following content:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE log-configuration SYSTEM "log-configuration.dtd">
<log-configuration>
  <log-formatters>
    <log-formatter
      name="DefaultFormatter"
      type="ListFormatter"/>
  </log-formatters>
  <log-destinations>
    <log-destination
      count="3"
      effective-severity="ALL"
      limit="800000"
      name="UC4Log"
      pattern="./log/applications/UC4ExecutorLog%g.log"
      type="FileLog"/>
    <log-destination
      count="3"
      effective-severity="ALL"
      limit="800000"
      name="UC4Trace"
      pattern="./log/applications/UC4ExecutorTrace%g.trc"
      type="FileLog"/>
  </log-destinations>
</log-configuration>
```

```

<log-controller
  effective-severity="ALL"
  maximum-severity="ALL"
  minimum-severity="ALL"
  name="/Applications/UC4">
  <associated-destinations>
    <destination-ref
      association-type="LOG"
      name="UC4Log" />
    </associated-destinations>
</log-controller>
<log-controller
  effective-severity="ALL"
  maximum-severity="ALL"
  minimum-severity="ALL"
  name="com.uc4.ex.jmx">
  <associated-destinations>
    <destination-ref
      association-type="LOG"
      name="UC4Trace" />
    </associated-destinations>
</log-controller>
</log-controllers>
</log-configuration>

```

PART 2: ADAPT THE CODING

Create a Category and Location instance:

```

Category CATEGORY = Category.getCategory(Category.APPLICATIONS, "UC4");
Location LOCATION = Location.getLocation("com.uc4.ex.jmx");

```

The first line creates a Category with the name /Applications/UC4
The second line create a Location with the name com.uc4.ex.jmx
These two names correspond to the names in the log-configuration.xml.

The infoT, errorT and warningT methods of the Category can be used to log info, error and warning messages.

For a complete reference of the parameters see java docs under
<http://help.sap.com/javadocs/NW04S/current/index.html>

READING LOG MESSAGES USING THE SAP NETWEAVER ADMINISTRATOR

- 1) Log on to the Netweaver Administrator
- 2) Go to System Management → Monitoring → Logs and Traces
- 3) Select the predefined view "SAP Logs"
- 4) Click "Open Filter"
- 5) Filter the Category /Applications/UC4

6) Click "Apply Filter"

7) UC4 Log messages are shown in Netweaver Administrator. If a Job fails the message has the severity error:

Logs and Traces

Show

SAP Logs

Filter by Data Source

Filter by Content

Severity	Date	Time	Message	Category	Location	Application
info	2006-11-07	17:10:54:796	U0029001 Report '1733019' ended normally.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:10:54:765	U0029000 Report '1733019' for file 'OA.ADUPQO.TXT' has been started.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:10:54:656	U2001026 Job 'JOBS.JMX.NW2004S' with RUN# '1733018' has been removed from the job table.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
error	2006-11-07	17:10:54:421	U2000009 Job 'JOBS.JMX.NW2004S' with RUN# '1733018' ended with return code '1'.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:10:54:140	U2000003 Job 'JOBS.JMX.NW2004S' was started with RUN# '1733018'.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:10:54:062	Lookup:jmx	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:10:53:999	U2000005 Start job 'JOBS.JMX.NW2004S' with RUN# '1733018'.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:09:49:678	U2000017 The check interval for 'Report' has been set to '60' seconds.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:09:49:678	U2000017 The check interval for 'Reconnect' has been set to '20' seconds.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor
info	2006-11-07	17:09:49:678	U2000017 The check interval for 'Server' has been set to '660' seconds.	/Applications/UC4	com.uc4.ex.jmx	uc4.com/JMXExecutor