

Installation Guidelines for the OSS Common API Reference Implementation (JSR 144)

OSS through Java™ Initiative

OSS Common Team

COM-API-RI-IG.1.0

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Executive Summary

This document provides guidelines for the installation of the OSS Common API (JSR 144) Reference Implementation.

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Preface

Objectives

Provide complete installation guidelines for the OSS Common API (JSR 144) Reference Implementation.

Audience

OSS developers installing the OSS Common API (JSR 144) Reference Implementation.

Approval and Distribution

JSR 144 expert group and OSS through Java Initiative

Related Information

OSS Common API specifications	([COM01])
OSS Design Guidelines	([COM02])
OSS Common API TCK COM-API-TCK-IG.1.0	([COM03] and [COM04])
BEA WebLogic Server 6.1 (sp2)	([BEA01])
License Terms	([COM05])

Revision History:

Date	Version	Author	State	Comments
05/02/2002	1.0	Daniel Lutoff, Sun Microsystems	Initial	

1 Introduction

This document describes step-by-step the installation of the OSS Common API Reference Implementation. It is assumed that the application server is BEA Weblogic Server 6.1 (see [BEA 01]).

IMPORTANT: Before installing the OSS Common API Reference Implementation, please read and follow the license agreement (see [COM05]).

The design of the reference implementation is described in [COM06]. It is important to follow the instructions in chapter 4, 5 about the environment and the WebLogic server.

2 Prerequisites

The reference implementation requires the following:

- BEA WebLogic 6.1 Service Pack 2

3 Package Organization

Here is an overview over the files and directories included in the reference Implementation package named `oss_common-1_0-src_ri.zip`:

- ***oss_common-1_0-src_ri/doc/COM-API-RI-IG.1.0.pdf***
This document
- ***oss_common-1_0-src_ri/doc/COM-API-RI-DG.1.0.pdf***
The Reference implementation Design Guide
- ***oss_common-1_0-src_ri/doc/LGL-HML-RI-COM.1.0.html***
The License Terms
- ***oss_common-1_0-src_ri/lib/oss_common-1_0-ri_spec.jar***
The jar file containing javax.oss interfaces/abstract classes
- ***oss_common-1_0-src_ri/lib/oss_common-1_0-ri.jar***
The RI jar file containing the implementation of the specification
- ***oss_common-1_0-src_ri/ri/oss_common-1_0-ri_depl.ear***
The WebLogic application deployment jar file.
- ***oss_common-1_0-src_ri/ri/oss_common-1_0-install_ri.sh***
The Unix shell which install the RI in WebLogic environment
- ***oss_common-1_0-src_ri/ri/oss_common-1_0-install_ri.cmd***
The NT shell which install the RI in WebLogic environment
- ***oss_common-1_0-src_ri/ri/oss_common-1_0-weblogic_config.xml***
The xml configuration to be added in WebLogic environment (See 4.2.3)
- ***oss_common-1_0-src_ri/src/oss_common-1_0-src-ri.zip***
The zip file containing javax.oss interfaces/abstract classes
- ***oss_common-1_0-src_ri/src/oss_common-1_0-src-full_ri.zip***
The RI zip file containing the implementation of the specification

4 Configure reference implementation environment

4.1 Installation of Reference Implementation to local disk

Unzip the Reference Implementation archive to a directory of your choice. In this document, this directory will be referenced by <RI_DIR> and the value 'OssCommonInstallationDir' will be used as an example.

4.2 Using BEA Weblogic Server 6.1

4.2.1 Prerequisites

This document assumes a BEA Weblogic Server 6.1 has already been installed on your system. An evaluation version of the BEA Weblogic application server is available at [BEA 01].

If you are installing under Windows NT you probably do not want to run Weblogic Server as a service. Otherwise you may not be able to change the configuration files for Weblogic Server or you may have to restart NT to restart the application server. In this document, the BEA Weblogic application server installation dir will be noted <BEA_DIR> and the value 'BEA' will be used as an example.

DO NOT START THE SERVER UNTIL YOU HAVE COMPLETED ALL OF THE FOLLOWING SUBSECTIONS.

4.2.2 Step 1: Setting WL_HOME

You have to define the environment variable WL_HOME.

This can be done

- Either globally for the entire system. For Windows NT you can do this in your Control Panel. For Unix you have to edit your login script to do the same.
- Or you put the command at the top of the Weblogic Server startup script.

The variable should be set to the BEA Weblogic Server home directory:

```
NT: set WL_HOME=c:\<BEA_DIR>\wlserver6.1
UNIX (ksh): export WL_HOME=/<BEA_DIR>/wlserver6.1

This could be for example:
NT: WL_HOME=c:\BEA\wlserver6.1
UNIX (ksh): export WL_HOME=/BEA/wlserver6.1
```

4.2.3 Step 2: Creating Queues, Topics and Connection Factories

Weblogic Server has to be configured to know about how to send JMS messages. To do that, you have to modify the "config.xml" Weblogic file.

Relatively to your BEA installation directory it can be found here:

```
NT: \<BEA_DIR>\wlserver6.1\config\mydomain\config.xml
UNIX: /<BEA_DIR>/wlserver6.1/config/mydomain/config.xml
```


Simply paste everything, what follows here, after the line:

```
<Domain Name="mydomain">
```

If your domain is named differently, than this line will of course contain a different domain name.

```
<JMSServer Name="CommonJMSServer" Targets="myserver" TemporaryTemplate="Common JMS
Template">
  <JMSTopic
    JNDIName="System/RI/ApplicationType/Common/Application/1-0;0-0;OSSJ COMMON
RI/Comp/JVTEventTopic"
    Name="Event Topic" StoreEnabled="default"/>
  </JMSTopic>
</JMSServer>

<JMSTemplate Name="Common JMS Template"/>

<JMSSConnectionFactory AllowCloseInOnMessage="false"
  DefaultDeliveryMode="Persistent" DefaultPriority="4"
  DefaultTimeToLive="0"
  JNDIName="System/RI/ApplicationType/Common/Application/1-0;0-0;OSSJ COMMON
RI/Comp/TopicConnectionFactory"
  MessagesMaximum="10" Name="Common RI Topic Connection Factory"
  OverrunPolicy="KeepOld" Targets="myserver"/>
```

The file should end with:

```
</Domain>
```

If the name of your server (the application server, not the actual machine you installed Weblogic Server onto) is different from "**myserver**", then you will change the **Target** attributes in all Elements above.

A copy of this added definition can be found here:

```
NT:      c:\<RI_DIR>\ri\oss_common-1_0-weblogic_config.xml
UNIX:    /<RI_DIR>/ri/oss_common-1_0-weblogic_config.xml

This could be for example:
NT:      c:\OssCommonInstallationDir\ri\oss_common-1_0-weblogic_config.xml
UNIX:    /OssCommonInstallationDir/ri/oss_common-1_0-weblogic_config.xml
```

4.3 Deploying the Enterprise Application Archive

4.3.1 Copying the Enterprise application Archive file

To deploy the Enterprise Application Archive, you first have to copy the Enterprise Application Archive into Weblogic environment. The archive file you need to deploy is "oss_common-1_0-ri_depl.ear". This file is provided with the OSS Common API Reference Implementation zip file and it should be located in the folder where you have extracted the contents of the zip file:

```
NT:      c:\<RI_DIR>\ri\oss_common-1_0-ri_depl.ear
UNIX:    /<RI_DIR>/ri/oss_common-1_0-ri_depl.ear

This could be for example:
NT:      c:\OssCommonInstallationDir\ri\oss_common-1_0-ri_depl.ear
UNIX:    /OssCommonInstallationDir/ri/oss_common-1_0-ri_depl.ear
```

To automatically copy the Archive file into the correct location,

1. Go first under the following directory:

```
NT:      c:\<RI_DIR>\ri
UNIX:    /<RI_DIR>/ri
```

```
This could be for example:
NT:      c:\OssCommonInstallationDir\ri
UNIX:    /OssCommonInstallationDir/ri
```

2. Run the following script:

```
NT:      oss_common-1_0-install_ri.cmd
UNIX:    oss_common-1_0-install_ri.sh
```

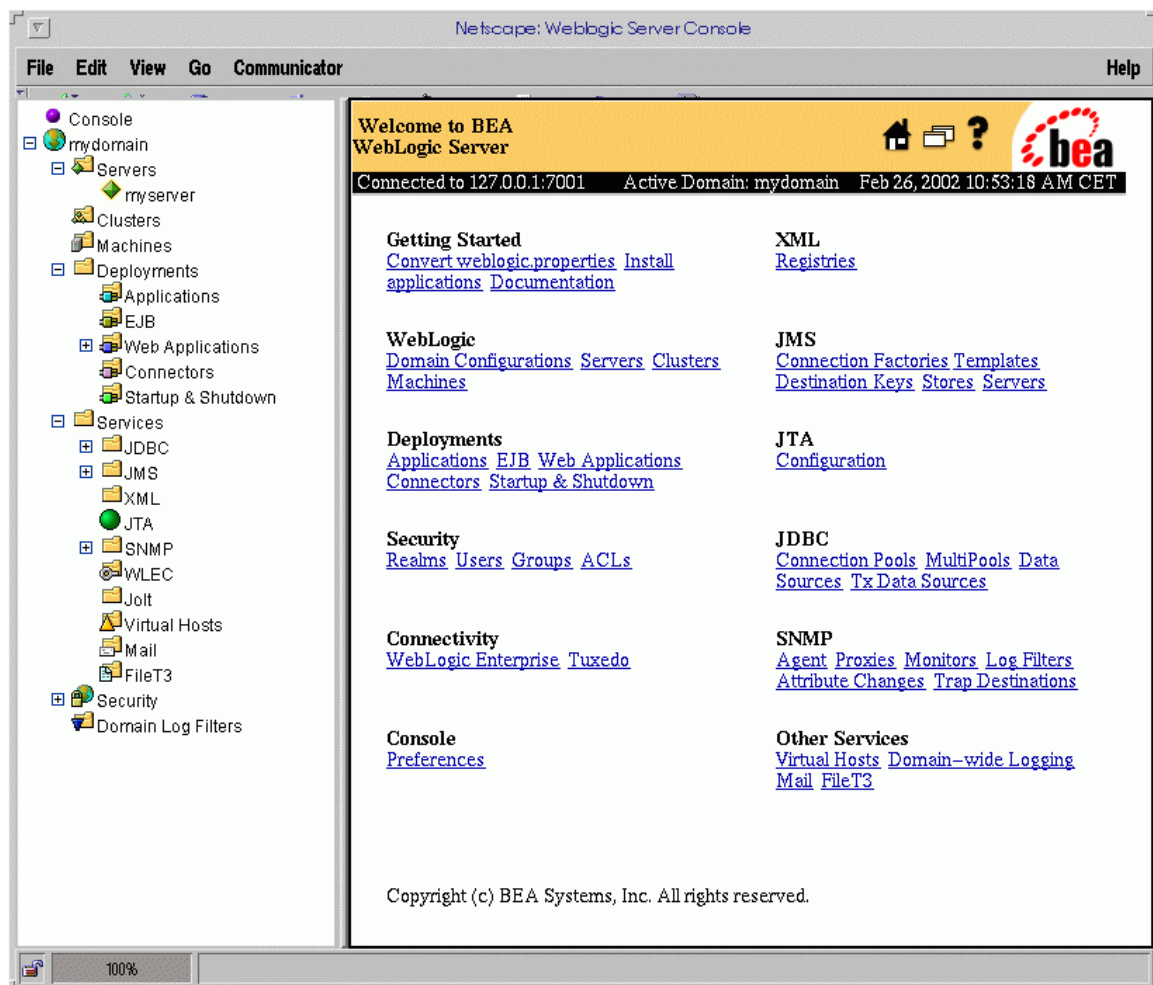
4.3.2 Start the Weblogic Server

Now you can start the Weblogic Server using the startup script. Assuming that your domain name is "mydomain", (otherwise the correct domain for the startup script should be used), it can be found here:

```
NT: \<BEA_DIR>\wlserver6.1\config\mydomain\startWeblogic.cmd
UNIX: /<BEA_DIR>/wlserver6.1/config/mydomain/startWeblogic.sh
```

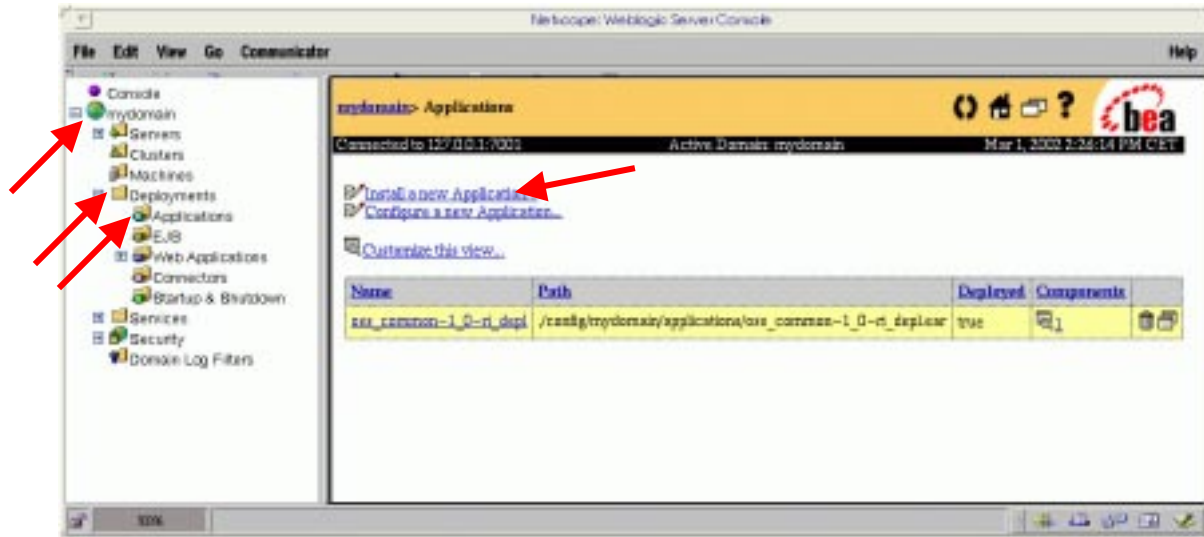
When the server is running, open the admin console using your browser (<http://127.0.0.1:7001/console>, assuming the server runs on your local machine and you are using the default port 7001). You will be asked for a username, which is "system", and a password. This is the password you supplied during installation of the Weblogic Server.

After that you will see the administration console of Weblogic in your browser:



4.3.3 Deploying the Enterprise Application Archive

To deploy the Enterprise Application Archive, click on "mydomain→Deployments→Application ". The archive file you need to deploy is "oss_common-1_0-ri_depl.ear".



In the previous screenshot, you already see the file "oss_common-1_0-ri_depl.ear" deployed. However before it appears on the console, you should first click on "Install a new Application", you should browse to the file "oss_common-1_0-ri_depl.ear" (eventually you have to set the filetype to *.ear in the file open dialog) and click on upload.

With this the installation is complete. You can check the shell window in which you started the Weblogic Server for error messages.

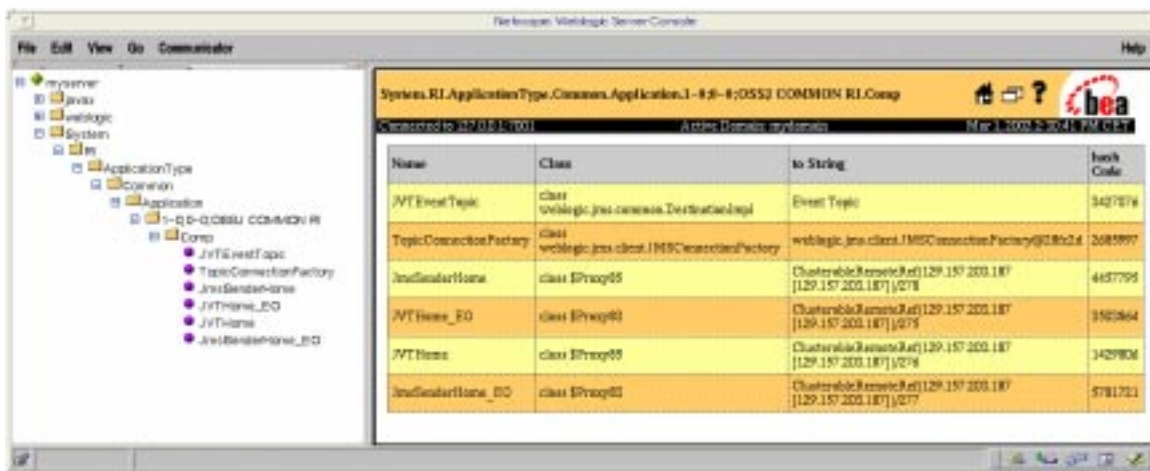
5 Verifying the Deployment

In the tree on the left side, you will find all configurations you made in the file "config.xml" under the nodes "mydomain→Services→JMS→Connection Factories".

Another way to access to the deployed EJB is to browse the JNDI tree:

In the tree on the left side, right-click on the

"mydomain→Servers→myserver" and choose the "View JNDI tree" menu. A new window will be opened. In the tree on the left side, select "myserver→System→RI→ApplicationType→1-0;0-0;OSSJ COMMON RI→Comp". You should see the following configuration:



6 Testing the Reference Implementation deployment

The best way to see if the deployment of the Reference Implementation was correct is the use of the Technology Compatibility Kit (TCK). You can download it and run it against your server.

The TCK will test every aspect of the functionality provided by the Reference Implementation components. For details see the TCK User Guide (see [COM04]).

Appendix A: Glossary and References

References

- [BEA01] BEA WebLogic 6.1, <http://www.bea.com>
- [OSS/J] OSS through Java™ Initiative, <http://java.sun.com/products/oss>
- [COM01] OSS Common API specification <http://jcp.org/jsr/detail/144.jsp>
- [COM02] OSS Design Guidelines
<http://java.sun.com/products/oss/Com-arch-dg.1.1.pdf.zip>
- [COM03] OSS Common API TCK – Test cases
(COM-API-TCK-TC.1.0)
- [COM04] OSS Common API TCK – User Guide
(COM-API-TCK-UG.1.0)
- [COM05] License Terms (LGL-HML-RI-COM.1.0.htm)
- [COM06] Design of the OSS Common Reference Implementation
(COM-API-RI-DG.1.0)