

IUCLID 5

Guidance and support

Installation Guide

Distributed Version

Oracle - BEA Weblogic



June 2009

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It can be accessed at the addresses:

<http://iuclid.echa.europa.eu>.

<http://echa.europa.eu>.

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Chapter 1. Oracle

The installation details of the Oracle DBMS is out of scope of this document due to its complexity. Please refer to the Oracle documentation or contact the vendor of the software.

However, it is described how to install `sqlplus` client application in order to prepare a database for IUCLID 5 in your Oracle installation.

1.1. Installing sqlplus

If Oracle is not installed on the computer where you are installing IUCLID then you need to install `sqlplus`, the sql client application of oracle.

Download `instantclient-basic` and `instantclient-sqlplus` packages from <http://www.oracle.com/technology/software/tech/oci/instantclient/index.html>.

Install the packages using `rpm`, or unzip the packages if you have a 64 bit platform (replace the version according to the downloaded files).

```
~#rpm -iv oracle-instantclient-basic-10.2.0.3-1.i386.rpm \  
oracle-instantclient-sqlplus-10.2.0.3-1.i386.rpm  
Preparing packages for installation...  
oracle-instantclient-basic-10.2.0.3-1  
oracle-instantclient-sqlplus-10.2.0.3-1  
~#
```

Set the environment variable `LD_LIBRARY_PATH` to the `lib` directory of Oracle.

```
~#export LD_LIBRARY_PATH=/usr/lib/oracle/10.2.0.3/client/lib  
~#
```

Test the installation of `sqlplus` without connecting it to a database. If the SQL prompt is displayed, you have successfully installed the application. Close the program with the `exit` command.



Note

Should be an error message displayed when you start `sqlplus`, check that the environment variable `LD_LIBRARY_PATH` points to the correct directory.

```
~#sqlplus /NOLOG  
SQL*Plus: Release 10.2.0.3.0 - Production on Mon May 14 11:56:03 2007  
Copyright (c) 1982, 2006, Oracle. All Rights Reserved.  
SQL>exit  
~#
```

For more information on Instant Client, see the official Instant Client site at <http://www.oracle.com/technology/tech/oci/instantclient/instantclient.html>.

1.2. Checking the default character set

In order to create a new tablespace and user you have to log in as `SYS` user. If you do not know the `SYS` password ask your Oracle database administrator to create the `iuclid5` user and tablespace.

Start sqlplus and connect to Oracle as a system administrator.

```
~#sqlplus /NOLOG
SQL*Plus: Release 10.2.0.3.0 - Production on Mon May 14 11:56:03 2007
Copyright (c) 1982, 2006, Oracle. All Rights Reserved.
SQL>connect SYS/syspassword@servername/databasename AS SYSDBA
Connected.
SQL>
```

IUCLID 5 requires the UTF-8 default character set of the database. Execute the following select command in order to .

```
/* checks the character set of the current database */
SQL>select property_value from database_properties
where property_name='NLS_CHARACTERSET';

PROPERTY_VALUE
-----
AL32UTF8
```

The default character set must be "AL32UTF8". If your setting is different, ask the database administrator to create a new database specifying AL32UTF8 as the default character set.

1.3. Preparing the tablespace

Create the iuclid5 user and tablespace in the database. It requires the password has to be changed.

```
/* This SQL script creates a user and an empty tablespace for IUCLID5 */
SQL>create tablespace iuclid5_ts
  datafile 'iuclid5_ts.dbf' /* specify absolute path */
  size 500M
  autoextend on
  next 500M
  maxsize 2000M;

Tablespace created.

grant create session to iuclid5 identified by "CHANGEIT";
Grant succeeded.

grant create table to iuclid5;
Grant succeeded.

grant create view to iuclid5;
Grant succeeded.

grant create sequence to iuclid5;
Grant succeeded.

alter user iuclid5 quota unlimited on iuclid5_ts;
User altered.

alter user iuclid5 default tablespace iuclid5_ts;
User altered.

SQL>
```

Disconnect from the database.

```
SQL>disconnect
Disconnected from Oracle Database 10g Release 10.1.0.3.0 - 64bit Production
SQL>
```

1.4. Checking the iuclid5 database user

Connect to the database using the username and password of iuclid5 in order to ensure that the database server accept a connection made by iuclid5 user.

```
SQL>connect iuclid5/i5password@servername/databasename
Connected.
SQL>exit
~#
```



Warning

Do not start IUCLID 5 until you successfully connect to Oracle using sqlplus from the server hosting IUCLID 5 web application.

1.5. Connect IUCLID to the Oracle database

Edit the `i5server/WEB-INF/classes/server.properties` file you extracted into the oracle directory.

`hibernate.connection.url=jdbc:oracle:thin:@localhost:1521:iuclid5` specifies oracle database server address, port and service name respectively.

`hibernate.connection.password=` The password you gave to the iuclid5 user during the tablespace creation.

```
#
# Settings for using ORACLE 10g
#
hibernate.connection.url=jdbc:oracle:thin:@localhost:1521:iuclid5
hibernate.connection.username=iuclid5
hibernate.connection.password=MUST_CHANGE_THE_PASSWORD
hibernate.connection.driver_class=oracle.jdbc.driver.OracleDriver
hibernate.dialect=eu.eca.iuclid.server.system.persistence.ExtendedOracle9Dialect
```

1.6. FAQ

If you want to delete the previously created user and tablespace, connect to Oracle as sysdba and execute the `drop user` and `drop tablespace` commands.

```
SQL>connect SYS/syspassword@servername/databasename AS SYSDBA
Connected.
SQL>drop user iuclid5 cascade;

User dropped.

SQL>drop tablespace iuclid5_ts including contents and datafiles;

Tablespace dropped.

SQL>
```

Chapter 2. BEA Weblogic server

2.1. Prerequisites

This document does not cover the installation of BEA Weblogic server itself. In case you need support with the installation of the application server please contact the technical support of the vendor.

2.2. Update the ANTLR component

BEA WebLogic brings along its own incompatible version of ANTLR, a parser generator used by various open source projects to parse their own script languages. Also Hibernate uses this library, however, in a more recent version. So we need to update the version provided by BEA. Unfortunately BEA's ANTLR is not packaged separately but contained in the central weblogic.jar. So we need to perform a patch of the scripts which start the WebLogic server.

1. Extract the needed JAR from the i5server.war by unzipping this file to a new directory. It is located in the path WEB-INF\lib and named depending on the current version (e.g.: antlr-2.7.6rc1.jar or higher).
2. Copy antlr-2.7.6rc1.jar to directory %INSTALLDIR%\weblogic90\server\lib



Note

Be sure that the file permissions are set correctly.

3. Edit file %INSTALLDIR%\weblogic90\common\bin\commEnv.bat (be sure to keep a copy!)
4. Alter the boot classpath of all WebLogic servers by adding the new ANTLR jar at the beginning of the classpath

find the line

```
WEBLOGIC_CLASSPATH=" ${PATCH_CLASSPATH}
${CLASSPATHSEP}${JAVA_HOME}/lib/tools.jar${CLASSPATHSEP}
${WL_HOME}\server\lib\weblogic_sp.jar$
${CLASSPATHSEP}${WL_HOME}\server\lib\weblogic.jar"
```

and change it to

```
WEBLOGIC_CLASSPATH=" ${WL_HOME}\server\lib\antlr-2.7.6rc1.jar${CLASSPATHSEP}
${PATCH_CLASSPATH}${CLASSPATHSEP}${JAVA_HOME}\lib\tools.jar${CLASSPATHSEP}
${WL_HOME}\server\lib\weblogic_sp.jar
${CLASSPATHSEP}${WL_HOME}\server\lib\weblogic.jar"
```

5. Start the newly configured server

2.3. Deployment of IUCLID 5

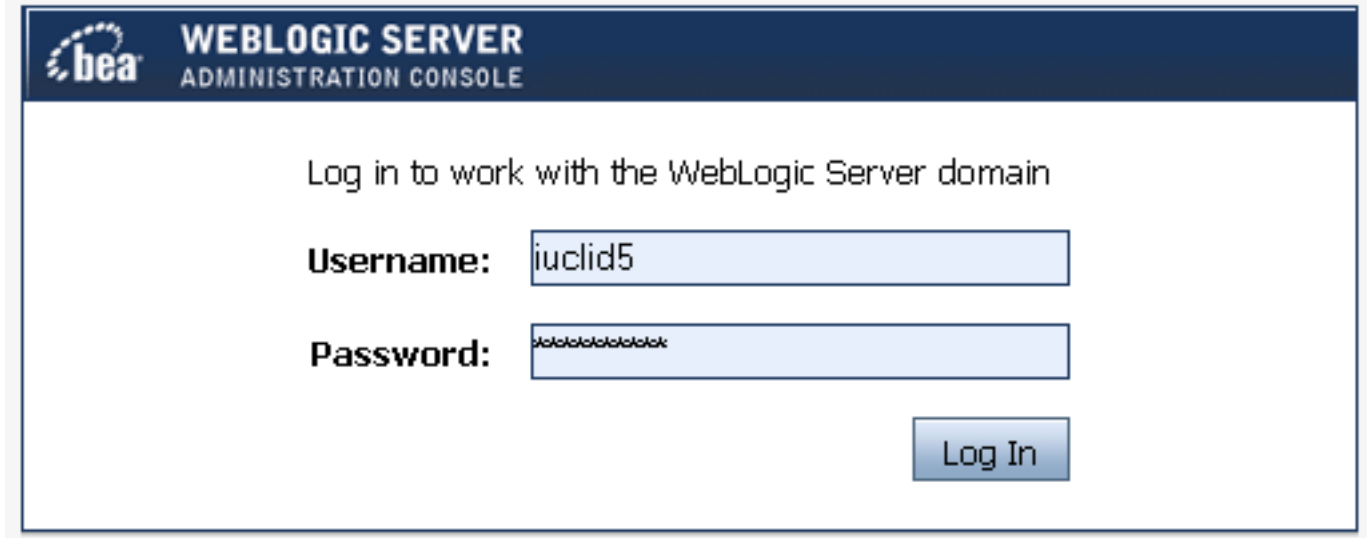


Important

IUCLID 5 can only be deployed as a directory. The deployment as a war file results an error.

1. Rename i5server.war to i5server.zip

2. Create a new folder called `i5server`
3. Extract the content of `i5server.zip` into the new folder.
4. Configure the database connection settings in the file `i5server\WEB-INF\classes\server.properties`
5. Open the page `http://localhost:7001/console` in your web browser.
6. Log in as the Weblogic Domain administrator



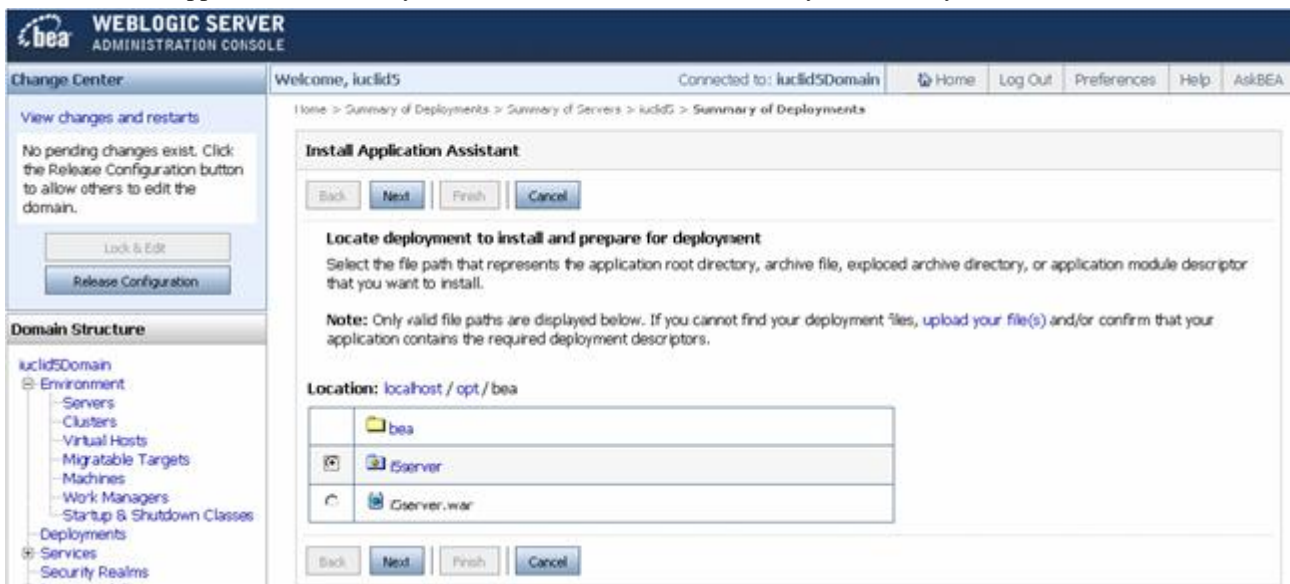
7. Click on 'Lock & Edit' which makes the configuration accessible by you exclusively.



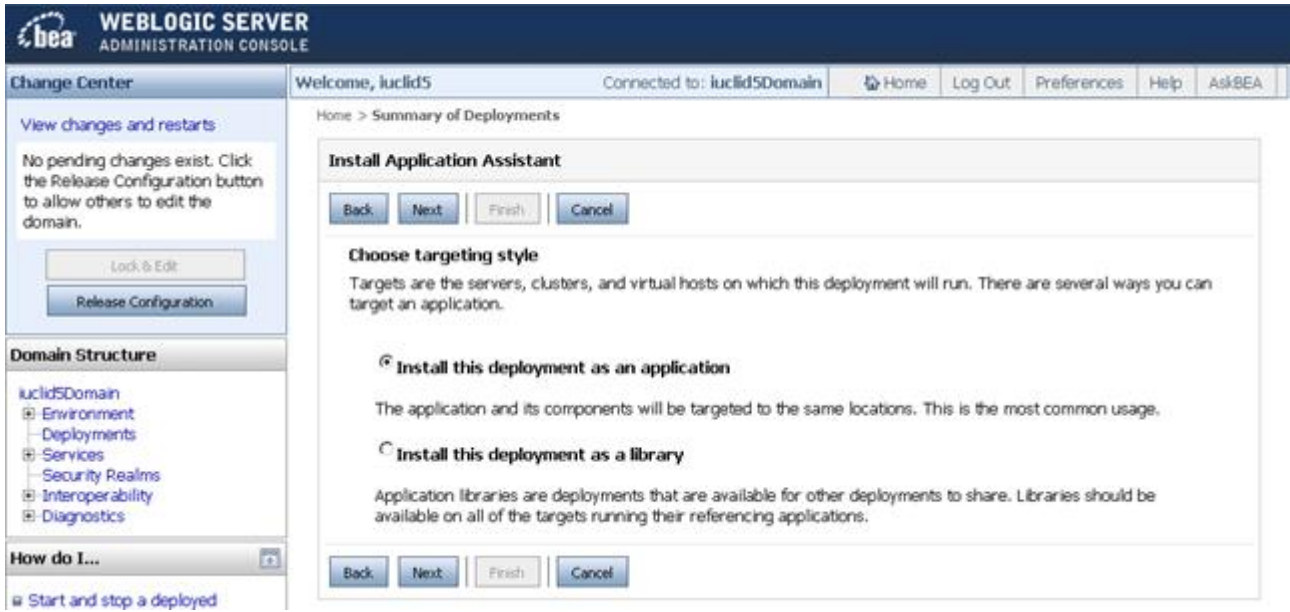
8. Within the domain structure tree on the left navigate to 'Deployments', then click the 'install' button.



9. Locate the web application's directory, and mark the check box in front of your directory and click 'next'



10. Choose 'Install this deployment as an application' and click 'next'



11. Ensure the settings are as shown below and note the name you specified in the first field "name". Via this name the web application will be accessible later: `http://<host>:7001/<web-app-name>`, then click "Next".

Install Application Assistant

Back
Next
Finish
Cancel

Optional Settings
You can modify these settings or accept the defaults

General

What do you want to name this deployment?

Name:

Security

What security model do you want to use with this application?

Use the security roles and policies exactly as they are provided in the deployment descriptors

Customize the security roles used by policies provided in the deployment descriptors later

Use custom roles and policies other than those in the descriptors

Use security realm configuration (advanced option)

Source accessibility

How should the source files be made accessible?

Use the defaults defined by the deployment's targets

Recommended selection.

Copy this application onto every target for me

During deployment, the files will be copied automatically to the managed servers to which the application is targeted.

I will make the deployment accessible from the following location

Location:

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

Back
Next
Finish
Cancel

12.Ensure the settings are as shown below and click 'Finish'

Welcome, iuclid5 Connected to: iuclid5Domain Home Log Out Preferences Help AskBEA

Home > Summary of Deployments

Install Application Assistant

Back Next **Finish** Cancel

Review your choices and click Finish
 Click Finish to complete the deployment. This may take a few moments to complete.

Additional configuration

In order to work successfully, this application may require additional configuration. Do you want to review this application's configuration after completing this assistant?

Yes, take me to the deployment's configuration screen.

No, I will review the configuration later.

Summary

Deployment: /opt/bean/15server.war

Name: 15server

Staging mode: Use the defaults defined by the chosen targets

Security Model: Use the security roles and policies exactly as they are provided in the deployment descriptors

Target Summary

Modules ^	Targets
15server	iuclid5

Back Next **Finish** Cancel

13. In order to activate your made changes click now on the green button 'Activate Changes'

WEBLOGIC SERVER ADMINISTRATION CONSOLE

Welcome, iuclid5 Connected to: iuclid5Domain Home Log Out Preferences Help AskBEA

Home > Summary of Deployments

Messages

- ✓ The deployment has been installed and added to the list of pending changes successfully.
- ✓ You must also activate the pending changes to commit this, and other updates, to the active system.

Summary of Deployments

Control Monitoring

This page displays a list of J2EE Applications and standalone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Deployments

Install Update Delete Start Stop Showing 1 - 1 of 1 Previous | Next

Name	State	Type	Deployment Order
i5server	distribute Initializing	Web Application	100

Install Update Delete Start Stop Showing 1 - 1 of 1 Previous | Next

14. Now you are able to start the newly deployed application by clicking on “Service all requests”

Welcome, iuclid5 Connected to: iuclid5Domain Home Log Out Preferences Help AskBEA

Home > Summary of Deployments

Summary of Deployments

Control Monitoring

This page displays a list of J2EE Applications and standalone application modules that have been installed to this domain. Installed applications and modules can be started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Deployments

Install Update Delete Start Stop Showing 1 - 1 of 1 Previous | Next

Name	State	Type	Deployment Order
i5server	Prepared	Web Application	100

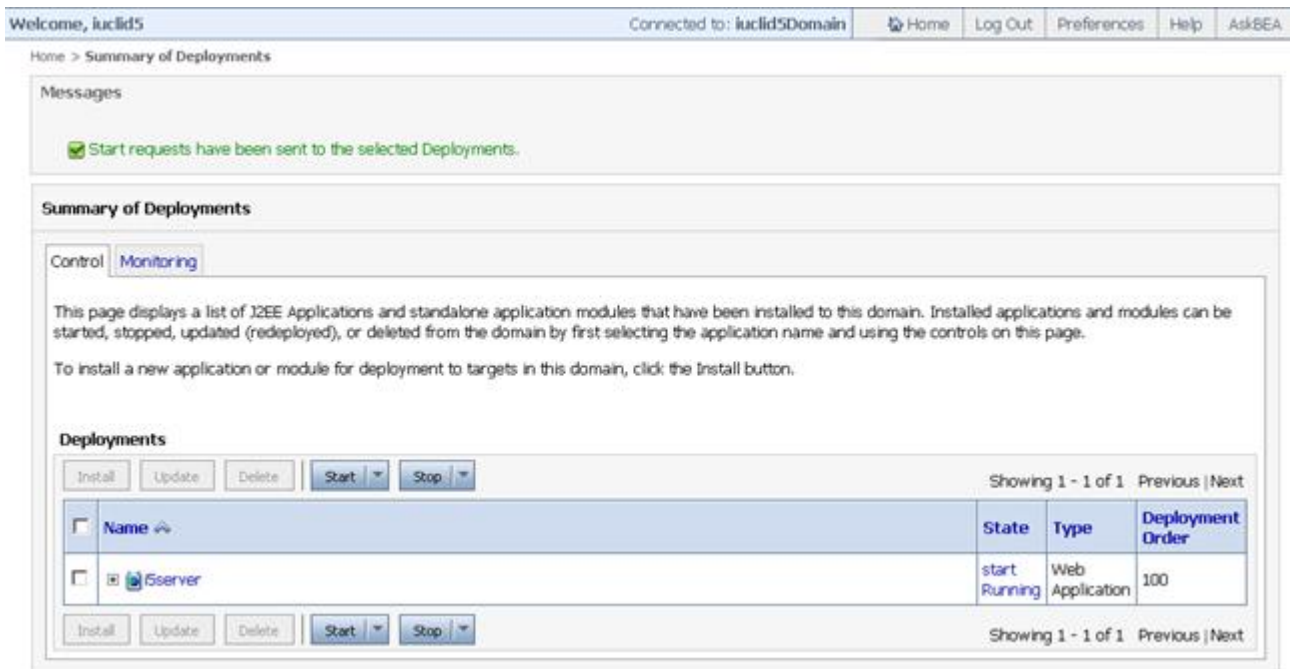
Install Update Delete Start Stop Showing 1 - 1 of 1 Previous | Next

Servicing all requests
Servicing only administration requests

15. Make a last confirmation “Yes”



16. Your application is now starting.



To start the client application point your browser to <http://<host>:7001/i5server> and click 'Install IUCLID 5 Client' in order to download, install and start the client via Java Web Start.

2.4. Upgrade

Upgrading IUCLID 5 to version 5.1.1 from a previous version consists of replacing the application's program files while keeping the current configuration and database.

1. Close all IUCLID 5 client applications.
2. Shut down Weblogic server
3. Copy the following configuration files to a backup directory

```
i5server/WEB-INF/classes/server.properties
i5server/WEB-INF/classes/i5server.logging.properties (if it exists)
```

4. Delete the `i5server` directory.
5. Extract the new version of IUCLID 5 into the same directory where the previous version was installed (as described in the previous section)
6. Replace the previously saved configuration files into the `i5server/WEB-INF/classes` directory.
7. Restart Weblogic server

