

OEPE Hands on Labs for WLS 11g

After some frustrating moments, trying to quickly going through the OEPE 11g Hands-on-Labs for Web-Services on WLS12c, I spent some time with problem analysis and eventually confirmed that the labs still run with the latest versions of WLS and Eclipse. We will present a graphical overview of each lab and note some required changes for the version OEPE 12c.

1 Contents

OEPE Hands on Labs for WLS 11g	1
1 Contents	1
2 OEPE Problems with command line error and updates.....	1
3 The OEPE Hands-On-Labs.....	1
3.1 LAB1: JAX-WS Service	2
3.2 LAB2: Client Gen.....	2
3.3 LAB3 Custom Bindings	3
3.4 LAB4 JAXB	4
3.5 LAB5 Fast Swap.....	5

2 OEPE Problems with command line error and updates.

I spent some time on analysing an error which broke the build of a simple web service. The eclipse builder complained that it could not start an ant process because the command line was too long. This problem with the limit to the command line length persists in windows for almost a decade and has not been resolved until now.

I tried to update my eclipse IDE from the *Help->Check for updates* Dialog. This finally broke my eclipse installation. The *revert configuration* tool didn't work.

I downloaded the *oepe-12.1.1.0.1 all-in-one* installer which installs eclipse and OEPE without WLS.

Current Version	Next Version
Distribution: oepe-indigo-installer-12.1.1.0.0.201112072225-12.1.1-win32.exe (WLS 12c Bundle) Eclipse Platform Version: 3.7.1 Build id: M20110909-1335	Distribution: oepe-indigo-all-in-one-12.1.1.0.1.201203120349-win32-x86_64 (OEPE only, without WLS) Eclipse Platform Version: 3.7.2 Build id: M20120208-0800

Now I had a working eclipse installation again, but it didn't solve the initial problem.

Since I modified the settings for the ant runtime before, which was required for another project, I simply created a new workspace. This solved the problem.

As learnt lesson we should not trust the update feature of eclipse nor the revert configuration feature. To play around with updates we should make a backup copy of the eclipse installation directory first.

3 The OEPE Hands-On-Labs

There are some small hands-on labs which demonstrate some OEPE features. They are targeted for WLS 11g and OEPE 11g. With some minor changes they also work with WLS12c and OEPE 12.1.1

Documentation	http://www.oracle.com/technetwork/developer-tools/eclipse/overview/oepe-jee-hol-1-129762.pdf
Code archive	http://download.oracle.com/otndocs/technology/products/workshop/W4WL10gR3_labs.zip

We will give an overview of the labs and point out some relevant changes for the new version

3.1 LAB1: JAX-WS Service

This lab demonstrates how to create a simple web service with the oepe tools which can be tested with the web service test client on the WLS admin server. The development approach is bottom up, i.e. we start with an annotated java class.

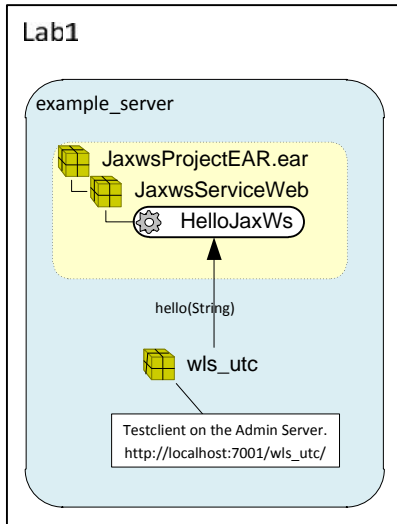


Figure 1. Overview of the Jax-WS Service Lab.

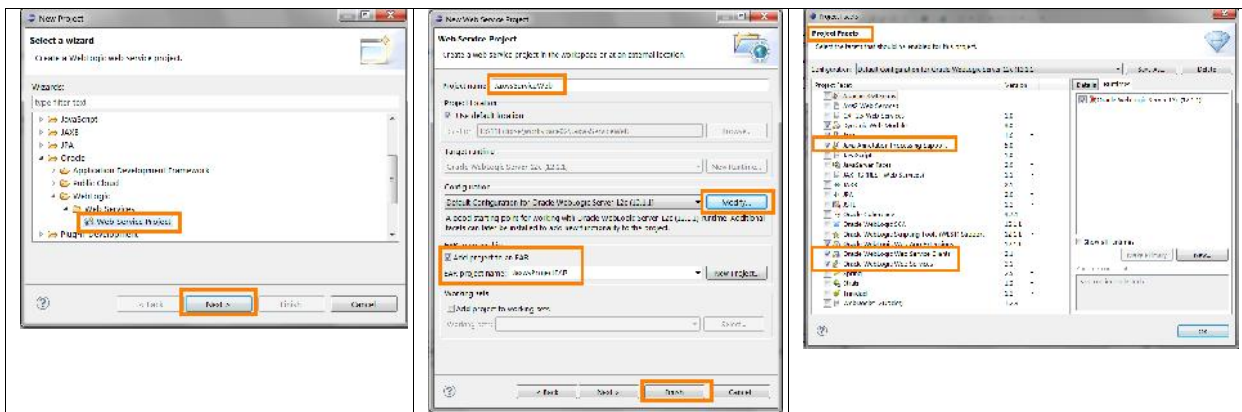


Figure 2. Dialog to create a web service project.

There is a change in step: 12. Under 'Configurations' select 'Annotated Web Services Facets JAX-WS (Recommended) (v10.3)'. The eclipse project facet "Annotated Web Services Facets JAX-WS" is no longer contained in the dialog. Assumingly the same functionality was moved to facets, which are marked, in the figure above. Nothings need to be done here.

3.2 LAB2: Client Gen

This lab demonstrates how to create a web service client from a wsdl file. We use the client gen feature of oepe. The resulting is a simple web application with a jsp which calls the HelloJaxWs web service.

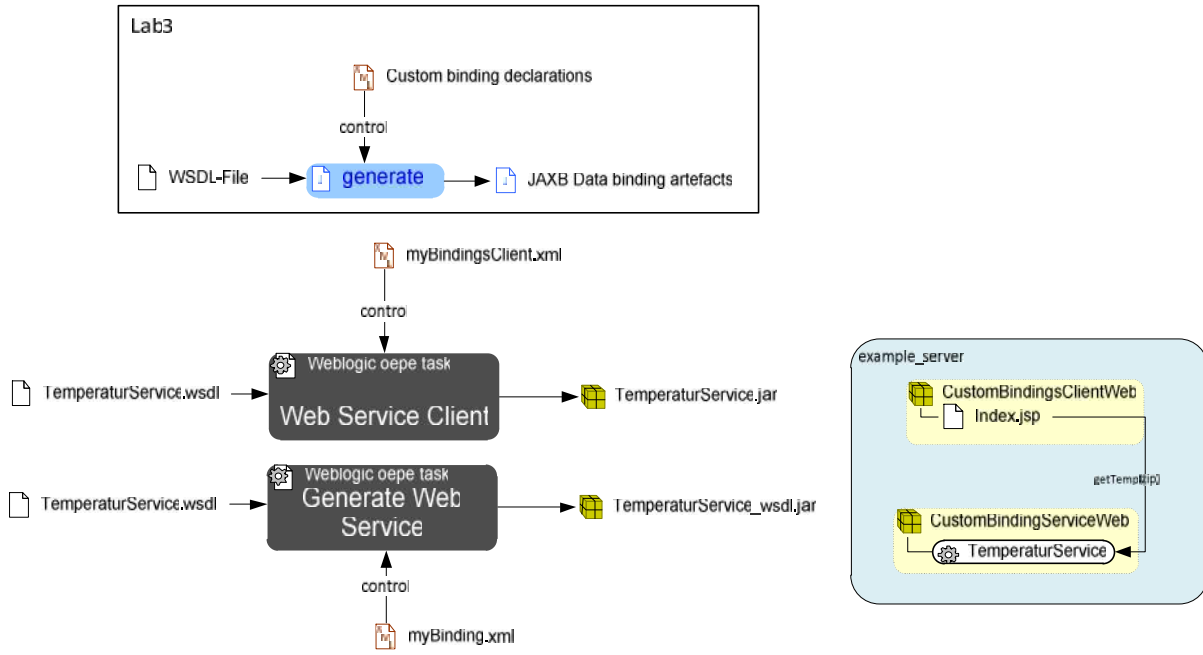


Figure 5. Overview of the Custom Bindings Lab.

Step 20 reads: "This will create the web service files in 'CustomBindingsServiceWeb /WebContent/WEB-INF/lib/TemperaturService_wsdl.jar'. If you want, you can open the file with winzip and you'll see the custom packaging reflected in the folder naming."

We list the contents of the generated jar files for reference.

It reflects the package path that was included in the mybindings.xml.

```
D:\11Eclipse\workspace02>jar tvf CustomBindingsServiceWeb/WebContent/WEB-INF/lib/TemperaturService_wsdl.jar
 2 Wed Apr 11 14:37:00 CEST 2012 META-INF/MANIFEST.MF
 0 Wed Apr 11 14:36:58 CEST 2012 com/
 0 Wed Apr 11 14:36:58 CEST 2012 com/hea/
 0 Wed Apr 11 14:37:00 CEST 2012 com/hea/wls103/
1295 Wed Apr 11 14:37:00 CEST 2012 com/hea/wls103/ObjectFactory.class
1883 Wed Apr 11 14:36:58 CEST 2012 com/hea/wls103/ObjectFactory.java
 0 Wed Apr 11 14:36:58 CEST 2012 examples/
 0 Wed Apr 11 14:37:00 CEST 2012 examples/webservices/
868 Wed Apr 11 14:37:00 CEST 2012 examples/webservices/custombindings/TemperaturePortType.class
998 Wed Apr 11 14:36:58 CEST 2012 examples/webservices/custombindings/TemperaturePortType.java
179 Wed Apr 11 14:37:00 CEST 2012 examples/webservices/custombindings/TemperaturePortTypeAsyncHandler.class
239 Wed Apr 11 14:36:58 CEST 2012 examples/webservices/custombindings/TemperaturePortTypeAsyncHandler.java
2636 Wed Apr 11 14:37:00 CEST 2012 examples/webservices/custombindings/TemperaturService.class
3225 Wed Apr 11 14:36:58 CEST 2012 examples/webservices/custombindings/TemperaturService.java
 0 Wed Apr 11 14:37:00 CEST 2012 wsdl/
1938 Wed Apr 11 14:37:00 CEST 2012 wsdl/TemperaturService.wsdl
```

Figure 6. Contents of TemperaturService_wsdl.jar

On in the ClientWeb it looks similar:

```
D:\11Eclipse\workspace02>jar tvf CustomBindingsClientWeb/WebContent/WEB-INF/lib/TemperaturService.jar
 0 Wed Apr 11 14:53:14 CEST 2012 META-INF/
102 Wed Apr 11 14:53:12 CEST 2012 META-INF/MANIFEST.MF
 0 Wed Apr 11 14:53:12 CEST 2012 com/
 0 Wed Apr 11 14:53:12 CEST 2012 com/hea/
 0 Wed Apr 11 14:53:12 CEST 2012 com/hea/wls103/
 0 Wed Apr 11 14:53:12 CEST 2012 examples/
 0 Wed Apr 11 14:53:12 CEST 2012 examples/webservices/
1179 Wed Apr 11 14:53:14 CEST 2012 examples/webservices/custombindings/
1883 Wed Apr 11 14:53:12 CEST 2012 com/hea/wls103/ObjectFactory.class
820 Wed Apr 11 14:53:14 CEST 2012 examples/webservices/custombindings/TemperaturePortType.class
998 Wed Apr 11 14:53:12 CEST 2012 examples/webservices/custombindings/TemperaturePortType.java
119 Wed Apr 11 14:53:14 CEST 2012 examples/webservices/custombindings/TemperaturePortTypeAsyncHandler.class
239 Wed Apr 11 14:53:12 CEST 2012 examples/webservices/custombindings/TemperaturePortTypeAsyncHandler.java
2479 Wed Apr 11 14:53:14 CEST 2012 examples/webservices/custombindings/TemperaturService.class
3345 Wed Apr 11 14:53:12 CEST 2012 examples/webservices/custombindings/TemperaturService.java
```

Figure 7. Contents of TemperaturService.jar

3.4 LAB4 JAXB

This Lab demonstrates the capability of eclipse to generate JAXB Binding classes from an XSD schema file. Here, book.xsd is the input for the generation of a number of JAXB binding classes which

provide the methods to read in the xml file *book.xml*. 'A small test class, which is called by the JSP page *index.jsp*, uses the JAXB binding classes to extract the book names from the xml file.

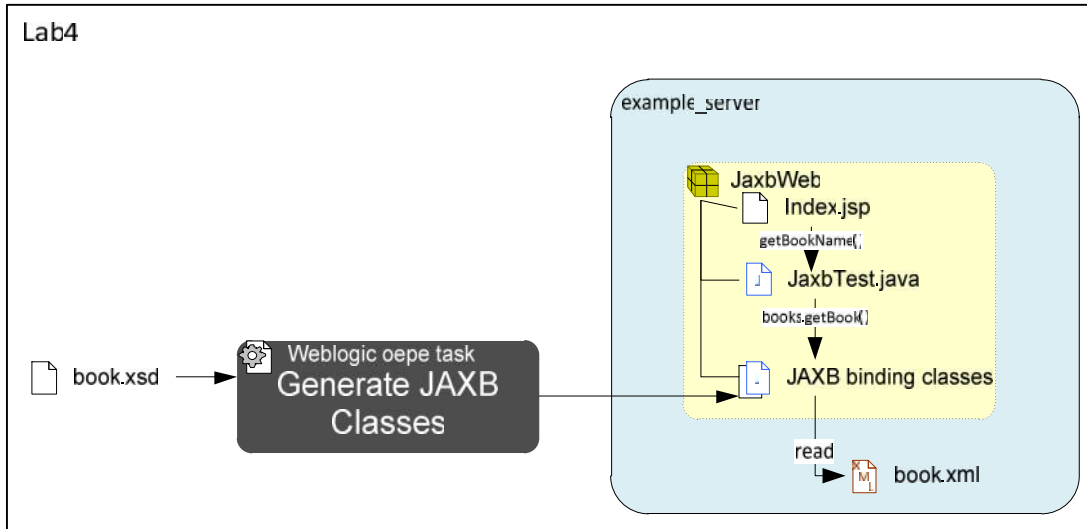


Figure 8. Overview of the JAXB lab.

The following figure shows how the project looks in eclipse.

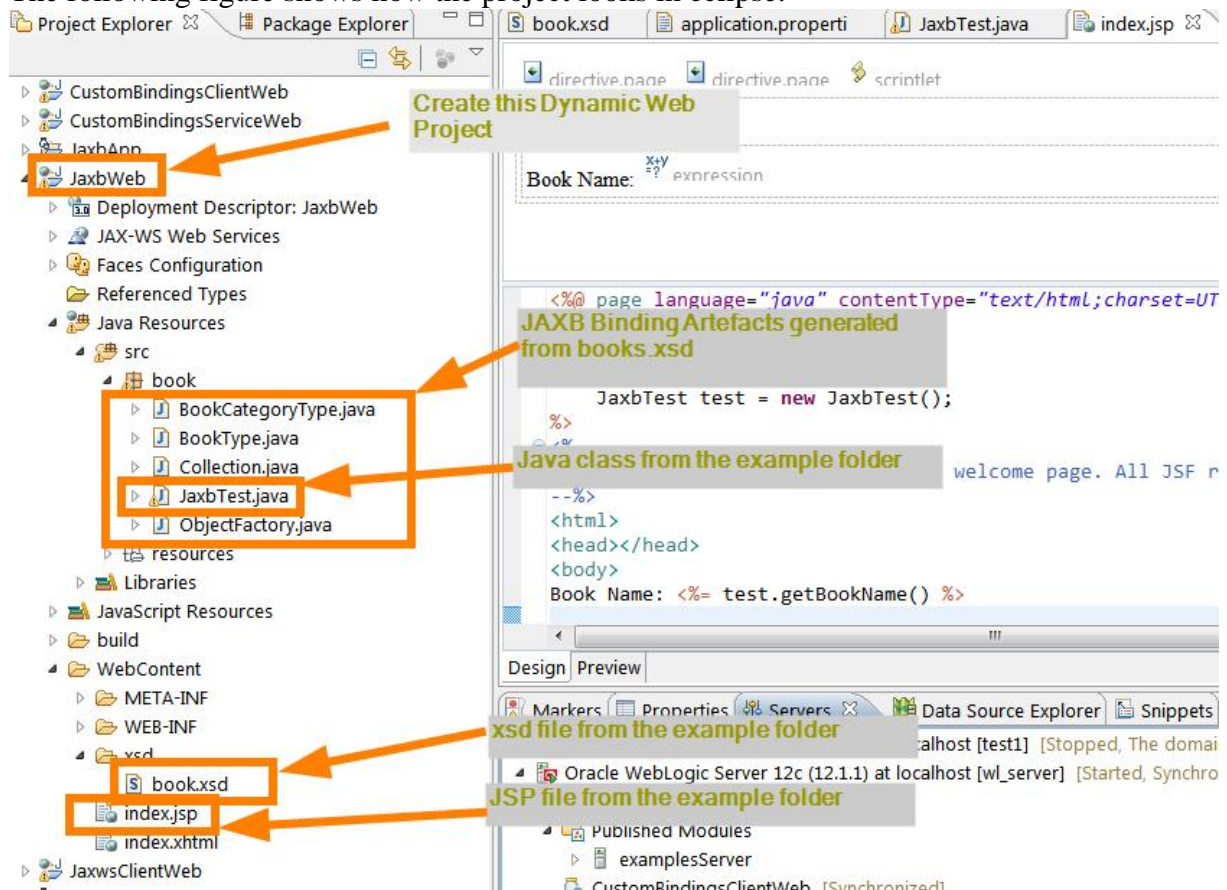


Figure 9. The JAXB lab in eclipse.

3.5 LAB5 Fast Swap.

This lab demonstrates the fast swap feature which can speed up the development process.

The Index.jsp calls the getBalance() method on the AccountBean EJB. We enable fast swap in the weblogic-application.xml deployment descriptor. Subsequently we edit the getBalance() method and can observe that the change gets reflected on refreshing the browser without republishing the EAR.

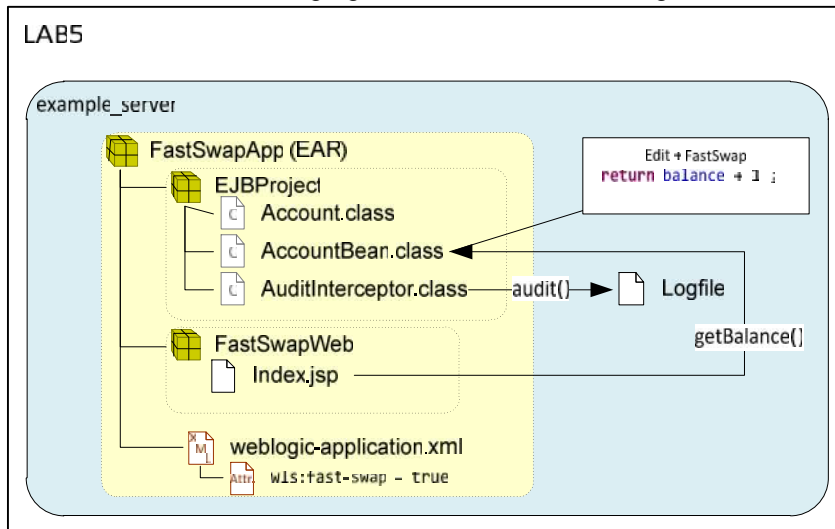


Figure 10. Overview of the Fast Swap Lab.

Note: In step 8:

8. Then choose *Java EE Module Dependencies* and navigate to the *Web Libraries* tab.

There is no Java EE Module Dependencies entry in the properties window in this version of eclipse. We can just ignore this step.