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.

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

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OEPE Hands-on-Labs.docx

 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.

Lab1
example_server
JaxwsProjectEAR.ear
JaxwsServiceWeb
hello(String)
wls_utc
Testclient on the Admin Server. http://localhost:7001/wls_utc/

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

New Project		Shew Web Second Engent	n nyati ato	
Select a wizard Create a Webbogic web service project.		Web Service Project urses a web service project in the workspace or at an essential location.	Project Proceb Count the Promotion should be evabled for the structs	9
Weards		Pojecinane Aussenskeweb	Configuration: Octated Configuration for Cracts Westing vision (2011) Project Taste	Catala Hardine
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		() elect State State Court	-	

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.

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Figure 3. Overview of the Client Gen lab.

In Step 17. You'll find the HelloJaxWsService.jar file in

JaxwsClientWeb/WebContent/WEB-INF/lib we create the binding artefacts. We list the contents of the jar file for reference.



Figure 4. Contents of HelloJaxWsServcie.jar

3.3 LAB3 Custom Bindings

This example demonstrates the usage of custom binding's declarations to control the generation of JAXB Data binding artefacts. It uses a top-down development approach starting from a WSDL.



Figure 5. Overview of the Custom Bindings Lab.

Step 20 reads: "This will create the web service files in 'CustomBindingsServiceWeb /WebContent/WEB-INF/lib/TemperatureService_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:\11E	lips	e\wo	rks	space02>ja	r tvi	E Cust	tomBindingsServiceWeb/WebContent/WEB-INF/lib/TemperatureService_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/	
Ø	Wed	Apr	11	14:36:58	CEST	2012	com/bea/	
Ø	Wed	Apr	11	14:37:00	CEST	2012	com/bea/wls103/	
1295	Wed	Apr	11	14:37:00	CEST	2012	com/bea/wls103/0bjectFactory.class	
1883	Wed	Apr	11	14:36:58	CEST	2012	com/bea/wls103/0bjectFactory.java	
0	Wed	Apr	11	14:36:58	CEST	2012	examples/	
0	Wed	Apr	11	14:36:58	CEST	2012	examples/webservices/	
0	Wed	Apr	11	14:37:00	CEST	2012	examples/webservices/custombindings/	
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/TemperatureService.class	
3225	Wed	Apr	11	14:36:58	CEST	2012	examples/webservices/custombindings/TemperatureService.java	
Ø	Wed	Apr	11	14:37:00	CEST	2012	wsdls/	
1938	Wed	Apr	11	14:37:00	CEST	2012	wsdls/TemperatureService.wsdl	
D:\11E	1:\11Fc]inse\worksnace02>							
			_		_			

Figure 6. Contents of TemperaturService_wsdl.jar

On in the ClientWeb it l	looks similar:
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					a ronger m			
	D:\11Ec	lip	selwo	rk	space02>.ia	ar tvi	f Cust	comBindingsClientWeb/WebContent/WEB-INF/lib/TemperatureService.jar
	Ø	Wed	Apr	11	14:53:14	CEST	2012	META-INFZ
	102	Wed	Apr	11	14:53:12	CEST	2012	META-INF/MANIFEST.MF
	0	Wed	Apr	11	14:53:12	CEST	2012	com/
	Ø	Wed	Apr	11	14:53:12	CEST	2012	com/bea/
	Ø	Wed	Apr	11	14:53:12	CEST	2012	com/bea/wls103/
	Ø	Wed	Apr	11	14:53:12	CEST	2012	examples/
	0	Wed	Apr	11	14:53:12	CEST	2012	examples/webservices/
	0	Wed	Apr	11	14:53:12	CEST	2012	examples/webservices/custombindings/
	1179	Wed	Apr	11	14:53:14	CEST	2012	com/bea/wls103/0bjectFactory.class
	1883	Wed	Apr	11	14:53:12	CEST	2012	com/bea/wls103/0bjectFactory.java
	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/TemperatureService.class
1	3345	Wed	Apr	11	14:53:12	CEST	2012	examples/webservices/custombindings/TemperatureService.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.



3.5 LAB5 Fast Swap.

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

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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.

example_server	
FastSwapApp (EAR)	Edit + FastSwap return balance + 1 ; udit()
FastSwapWeb Index.jsp weblogic-application.xml	getBalance()

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.