## 3. Building and deploying the sample CICS project for Heirloom PaaS

These steps assume you have an open, working Eclipse and a configured application instance.

If you do not then follow the steps in section '1, Configuring Heirloom PaaS and EBP for a simple demo'

Download Sample Source bundle from here: <u>http://www.elasticcobol.com/downloads/PaaSDemo.zip</u>

Building the ETP project

				(Name Due)	
Right Click	K the Project	Explorer and	i choose	ivew->Proj	ect :

000	New Project	
elect a wizard Create a COBOL Pro	piect	
Wizards:		
type filter text		
/ Java Project		
📽 Java Project f	rom Existing Ant Buildfile	
🎼 Plug-in Proje	ct	
🕨 🗁 General		
Eclipse Mode	ling Framework	
🕨 🧁 EJB		
Elastic COBO	L	
COBOL Pro	oject	
Elastic Transa	action Platform	
De Java		
Java EE		
JavaScript		

Choose 'COBOL Project' and click Next:

Project na	
, indject na	Uninedemo
🗹 Use de	fault location
Location:	/Users/ianw/Documents/workspace-azure/onlinedemo Browse
	Choose file system: default ‡
	Project type Project directories
Ela	stic Transaction Platform Template
► Sampl ► Tutori Diagn Details	es als ostic
<ul> <li>Sampl</li> <li>Tutori Diagn</li> <li>Details</li> <li>This p</li> <li>Platfor</li> <li>Tomca</li> <li>templa</li> <li>Java El</li> <li>no sou</li> </ul>	es als ostic roject template contains compiler settings for compiling Elastic Transaction rm projects and packaging them into .war files suitable for deploying to at, Jetty or other servlet container systems. It is identical to the standard ETP ate for deploying .ear files into Java EE servers except it references additional E jars that are not included in Tomcat required by ETP. This project includes arce files.

Name the project online demo, expand the 'Compatibility' option under 'Project type' and choose 'Elastic Transaction Platform WAR Template'. Click Finish and click Yes to open the Elastic COBOL perspective:

Project name	e: onlinedemo
🗹 Use defa	ult location
Location: /	Users/ianw/Documents/workspace-azure/onlinedemo Browse
000	Open Associated Perspective?
Remembe	er my decision
	No Yes
IBM E	BCDIC
Micro	> Focus
Details	

Expand the onlinedemo project:



From your source bundle drag onldemo.cbl into the cobol\_source folder and choose to 'Copy files' and click OK:



You'll note at this stage there are errors in the compile, we'll fix this with additional source files and steps:



Drag the dclgenf.cpy file into the copy lib folder, choosing 'Copy files' again. Right click the resources folder and 'New->Other' :

<ul> <li>Project Explorer ☆ 📴 Outling</li> <li>▶ 29 ListTable</li> <li>▼ 20 onlinedemo</li> <li>▶ 28 java_source</li> <li>▶ 28 intermediate_java_code</li> </ul>	e □ □			
➢ resources ► ▲ Referenced Libraries	New			📸 Project
▶ 🛋 JRE System Library [Java	Go Into			🗳 COBOL Project
<ul> <li>cobol_source</li> <li>copylib</li> <li>listing</li> </ul>	Open Type Hierarch Show In	y ∖⊂≋w	F4 ▶	S ETP Project
≥ workdir	<ul> <li>Copy</li> <li>Copy Qualified N</li> <li>Paste</li> <li>Delete</li> </ul>	ame	жс жv	<ul> <li>COBOL Copyfile</li> <li>COBOL Program</li> <li>ETP Deploy Settings</li> <li>JCL</li> </ul>
	Remove from Co Build Path Source Refactor	ntext TA T#S T#T	↓ ₩1 ↓	<ul> <li>Annotation</li> <li>Class</li> <li>Enum</li> <li>Interface</li> </ul>
	≥ Import ≥ Export			₽ Package ₽ Source Folder
	Refresh		F5	📸 Example
	Run As Debug As Profile As Validate Restore from Local I Maven PyDev Team Compare With	History	*** ****	<mark>≌ Other </mark>
	Properties	2. Problems	жı	

Select General->File and click Next:

000	New
Select a wizard	
Create a new file resource	
Wizards:	
type filter text	
<b>O</b> Class	
🕼 Interface	
🖄 Java Project	
☆ Java Project from Existing Ant Buildfi	le
Plug-in Project	
V 🗁 General	
Faceted Project	
File	
Folder	
Project	
Connection Profiles	
Database	
Database     Detabase     Web Services	
?	Next > Cancel Finish

Name the file **ecobol.dir** and click Finish.

Drag the ecobol.dir from your source bundle into the resources folder. Choose to 'Copy files' and confirm 'yes' for the file replacement:

work	space-azure - Elastic COBOL - onlinedemo/resources/ecobol.dir - Eclipse
	onlinedemo/resources/ecobol.dir exists. Do you wish to overwrite?
li	

Click Yes to perform a project rebuild.

Close the ecobol.dir window.

Drag the onldemo.bms file into the resources folder and choose to 'Copy files'.

Right click the onldemo.bms file and select 'Elastic COBOL BMS->Generate Copyfile' :

Project Expl	orer 🔀 📴 Outline		
<ul> <li>▶ <sup>2</sup> ListTable</li> <li>▼ <sup>2</sup> onlinede</li> <li>▶ <sup>2</sup> java_s</li> <li>▶ <sup>2</sup> intern</li> <li>▼ <sup>2</sup> resou</li> <li>■ <sup>2</sup> eco</li> </ul>	mo source nediate_java_code rces obol.dir		
Nor Refer	New	•	
► ■ JRE S ► cobo ► cobo ► copy	Open Open With	F3	
🧁 listin ⊘work	<ul> <li>Copy</li> <li>Paste</li> <li>Delete</li> <li>Move</li> <li>Rename</li> <li>Remove from Context</li> <li>Mark as Landmark</li> </ul>	↓將公プ ↑第公プ	
	≥ Import ≥ Export		
	Refresh	F5	
	Validate Show in Remote Systems v Run As Debug As Profile As Build Program	view	
	Elastic COBOL BMS	•	Generate Copyfile
	Compare With Replace With		
	Properties	жı	errors, 0 warnings, 0 others
		De	scription

Right click the onlinedemo Project and choose properties, then click 'Java Compiler'. Check 'Enable project specific settings' and choose 1.6 and the Compiler compliance level:

000	Properties for onlinedemo	
type filter text	Java Compiler	(□ • □) • ▼
▶Resource Builders	Senable project specific settings	Configure Workspace Settings
COBOL Compiler Settings COBOL Runtime Settings Java Build Path Java Code Style Java Compiler Javadoc Location Project Facets Project Facets Project References Run/Debug Settings Task Repository Task Tags Validation WikiText	JDK Compliance Use compliance from execution environm Compiler compliance level: Use default compliance settings Generated .class files compatibility: Source compatibility: Disallow identifiers called 'assert': Disallow identifiers called 'enum':	ent on the <u>'lava Build Path'</u>
	Classfile Generation	i files (used by the debugger) class files (used by the debugger) ile (used by the debugger) es improved performance) ers (usable via reflection) e to have a compatible JRE installed and <u>stalled JREs'</u> and <u>'Execution</u> ava Build Path'.
		Apply Apply
?		Cancel OK

Click OK, then click Yes to perform a project rebuild.

## Building the deployment project

Right click the Project Explorer and select New->Project...:

Choose Elastic Transaction Platform/ETP Project and click Next:

000	New Project		
Select a wizard Create an Elastic Transaction Platfo	rm Project		
Wizards:			
type filter text			
<ul> <li>Java Project</li> <li>Java Project from Existing Anti Plug-in Project</li> <li>General</li> <li>Eclipse Modeling Framework</li> <li>EJB</li> <li>Elastic COBOL</li> <li>COBOL Project</li> <li>COBOL Project</li> <li>Elastic Transaction Platform</li> <li>ETP Project</li> <li>Java</li> <li>Java EE</li> <li>JavaScript</li> <li>JAXB</li> </ul>	: Buildfile		
?	Next >	Cancel	Finish

Name the project 'onlinedemo-deploy' and click Finish.

000	New
Elastic Tra Create a n	ew ETP project.
Project na	me: onlinedemo-deploy
🗹 Use de	fault location
Location:	/Users/ianw/Documents/workspace-azure/onlinedemo-deplo Browse
	Choose file system: default ‡
?	< Back Next > Cancel Finish

Expand the onlinedemo-deploy project:



Drag the lib folder from your source bundle onto the WEB-INF directory and choose to 'Copy files and folders':

	ould be imported in	nto the project:	
$\odot$ Copy files and folders			
O Link to files and folder	;		
Link to files and recrea	te folder structure w	vith virtual folde	rs
Create link location	s relative to: PRO	JECT_LOC	÷
onfigure Drag and Drop Sett	ings		
oningure brag and brop set			

Expand the lib folder and your project structure should look like this:

🔻 🐼 onlinedemo-deploy
🔻 🗁 Java EE
🕨 🗁 ear
🕨 🗁 jar
🔻 🗁 war
🕨 🗁 css
🕨 🗁 font
META-INF
Scripts
🔻 🗁 WEB-INF
🔻 🗁 lib
postgresql-9.2-1003.jdbc4.jar
X beans.xml
iboss-web.xml
🗴 web.xml
🗴 weblogic.xml
🎱 heirloom.png
🖹 index.html
war_wildfly
project.etp_deploy_settings

In the Elastic Transaction Platform Deploy settings Editor set the SYSID to ONLD and check the onlinedemo project:

egories	Properties	
General		
Programs Transactions	SYSID: ONLD	APPLID:
SOL		
HTML Templates	Participating projects:	
lournals	Participating projects.	
Queues	ListTable	
Spools	✓ onlinedemo	
JMS	_	
Program Control		
File Control		
IMS DB		
Date/Time		
Counter		
Operator		
Trace		
JEE Application		
JEE Servlet		
JEE Security Roles		
Resource Access Control		

Click Apply.

Click the Transactions category and add two transactions, ONLD and INIT both pointing to the program onlinedemo:

General	Transactions			
Programs				
Transactions	Transaction ID	Program ID	UCTRAN	Add
SOL	onld	onldemo	false	
HTML Templates	init	onldemo	false	Edit
Journals				
Queues				Remo
Spools				
JMS				
Program Control				T
File Control				
IMS DB				
Date/Time				
Counter				
Operator				

Click the SQL category and click Add...:

000	Edit dialog
Connection name:	default
Datasource:	
Username:	demo
Password:	demouser
Connection URL*:	jdbc:postgresql://demodb.c
Driver classname:	org.postgresql.Driver
Auto Commit:	False ‡
Isolation Level:	Repeatable Read 🗧 🗧
Catalog:	
Read Only:	False ‡
*Only re	quired if no datasource is given
	Cancel OK

Fill in username, password, the connection URL (the same URL you used for the ListTable.cbl

code and the driver classname as "org.postgresql.Driver" (no quotes). Click OK. Click Apply.

You are now ready to export the converted CICS application. Right click the onlinedemo-deploy Project and select Export...:

In	COO Export	
L M rr eu	A Select Package ETP resources for deployment	
; 99 : ( 1 te er 1 co 5 S 5 ; 0	Select an export wizard: type filter text Cype filter text Comparison of the second	
Л	? < Back Next > Cancel	Finish

Select the 'Elastic Transaction Platform Deploy Wizard' and click Next:

C C C ETP Deploy Wizard
Archive Package Specification  Please enter a destination EAR/WAR file
Select the ETP deploy project to use:
ETP Project: onlinedemo-deploy   Browse
Deployment Options
• Traditional O Cloud
Select the export destination:
EAR/WAR file: Browse
Specify the deployment license location:
Browse
Options:
Compress the contents of the archive
Overwrite existing files without warning Include Project, smap files for debugging
Include Project Ismap mes for debugging
< Back         Next >         Cancel         Finish

Click the 'Cloud' radio button:

000	ETP Deploy Wizard		
Archive Package Specification Define what resources to package			
Select the ETP deploy project to use:			
ETP Project: onlinedemo-deploy			Browse
Deployment Options			
Select an Instance:			
DNS Product		Owner	Port
cicsdemo.apps Heirloom Pa	aS (Bronze)	demo@	8080
Refresh			
Specify the deployment license	location:		Browse
Options:	nive		
Overwrite existing files without wa	arning		
Include Project .smap files for deb	ugging		
?	< Back Next >	Cancel	Deploy

Select your application instance and click Deploy:

000	Archive Export Problems
Export fini	ished with warnings or info messages:

Click 'OK' to clear the info messages dialog. The deploy wizard will deploy the application to your PaaS instance, this may take several seconds.

Once it is done you will see this dialog:

	Cloud Deploy
Application D	eployment Success:
LaunchURL:	http://cicsdemo.apps.heirloomcomputing.com:8080/onlinedemo-deploy/index.html
	Launch View Logs Close

Click the 'Launch' button:



## Your ETP Project Home Page

This is the **index.html** page for your deployed Elastic Transaction Platform project. Change this page or go direct

http://cicsdemo.apps.heirloomcomputing.com:8080/onlinedemo-deploy/servlet

The **index.html** and other static content such as the cascading style sheets that control the look and feel of your sc /servlet portion of the URL in the ETP Deploy Settings file. For servlet container deployments the URL is determ

## Control will transfer to this region's INIT transaction screen in 4 seconds.

See support.heirloom.cc for more information.

This will bring up a browser window with your applications index.html. You may wait 10 seconds or click the url for the servlet to start the application:

	DATE	PF1	PF2
SAMPLE SCREEN	DATE:	PF3	PF4
	TIME:	PF5	PF6
		PF7	PF8
NAME :		PF9	PF10
PHONE		PF11	PF12
		PA1	PA2
		PA3	
			ear
		Re	set
HESSAGE . PROVIDE NECESSARY DETAILS			
FS=INSERI FS=BACK		Ent	ter
F5=INSERT F3=BACK		Ent	ter

	1	
	PF1	PF2
SAMPLE SCREEN DATE:	PF3	PF4
TIME:	PF5	PF6
	PF7	PF8
NAME : IAN	PF9	PF10
PHONE : 512-555-1234	PF11	PF12
	PA1	PA2
	PA3	ļ
	CL	ear
	Re	set
MESSAGE : PROVIDE NECESSARY DETAILS		
F5=INSERT F3=BACK	En	ter

Enter a name, and a phone number (lan , 512-555-1234) and click PF5:

If everything is configured correctly you'll see an 'INSERT SUCCESFULL' message:

SAMPLE SCREEN	DATE:	PF1	PF2
		PF3	PF4
	TIME:	DE7	PFR
NAME : IAN		PF9	PF10
		PF11	PF12
PHONE : 512-555-1234			
		PA1	PA2
		PA3	
		<u> </u>	ear
		Res	set
MESSAGE : INSERT SUCCESSFULL			
F5=INSERT F3=BACK		Ent	ter

You can enter more data by first pressing 'Clear', then enter the data and press PF5.

You can now read the data using JCL by following the Deploy EBP sample for Heirloom PaaS guide