

# How to use Drools Guvnor 5.1 as a Service Repository

## Last Revised: March 11, 2010

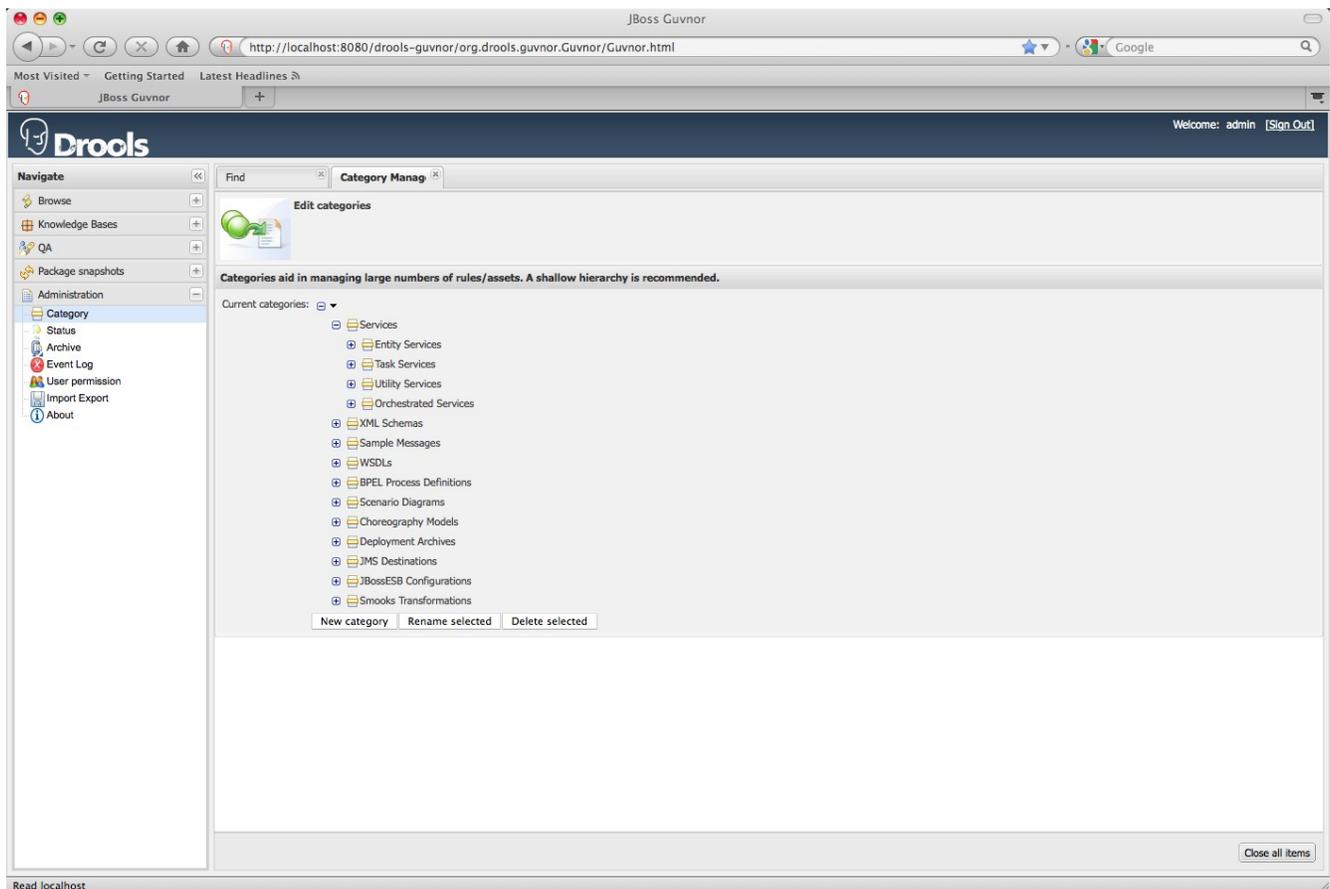
### Setup

This is how I created service\_repository.xml. You do not need to re-create these steps (unless you wanted to create your own service\_repository structure). You can skip to Adding Artifacts as Assets to Guvnor.

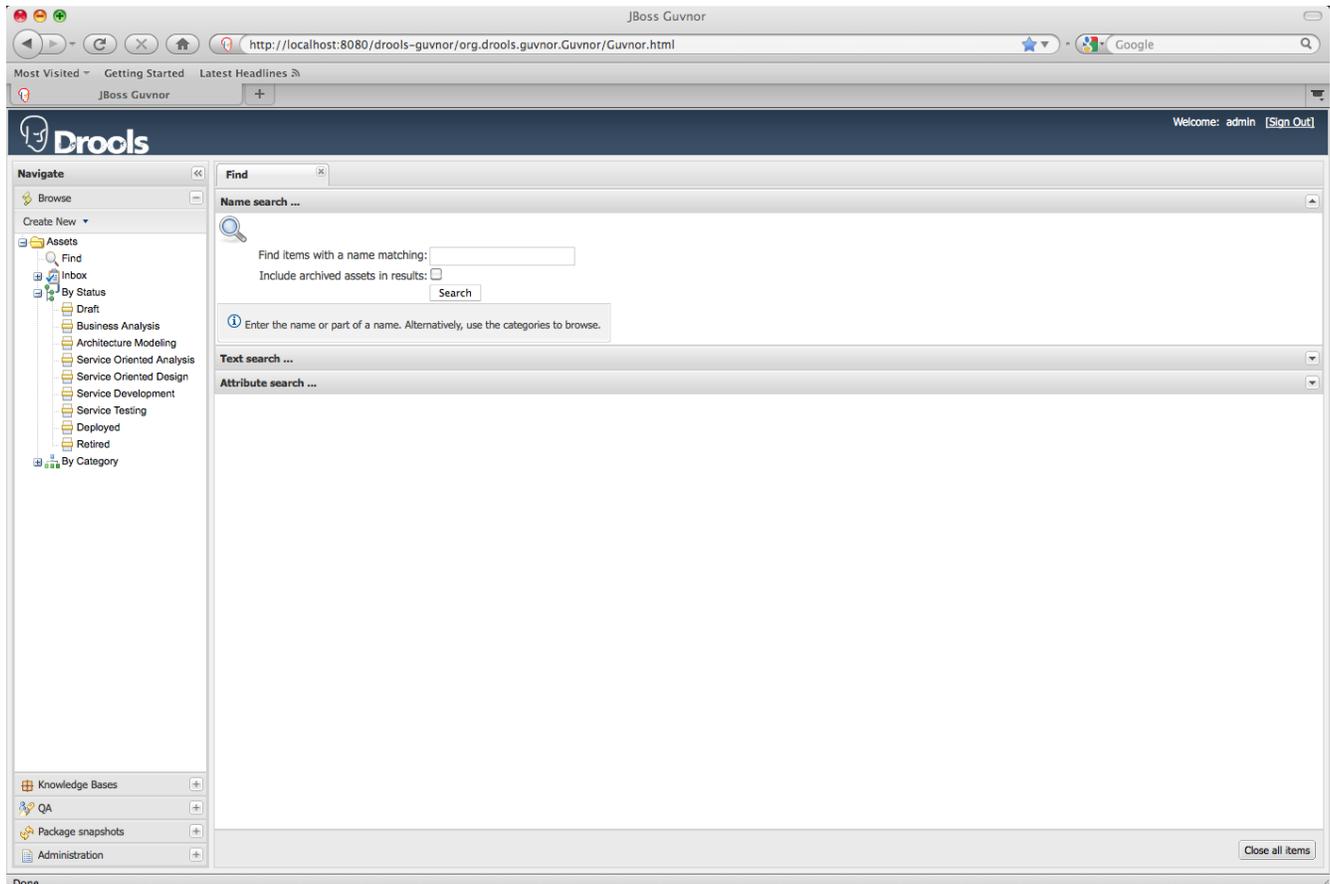
1) Install Guvnor on a separate JBossEAP instance (Note currently this only appears to work on EAP 4.3). Start server, logon to Guvnor, don't install samples.

2) Add category for Services, and under Service: Entity Services, Task Services, Utility Services, Orchestrated Services.

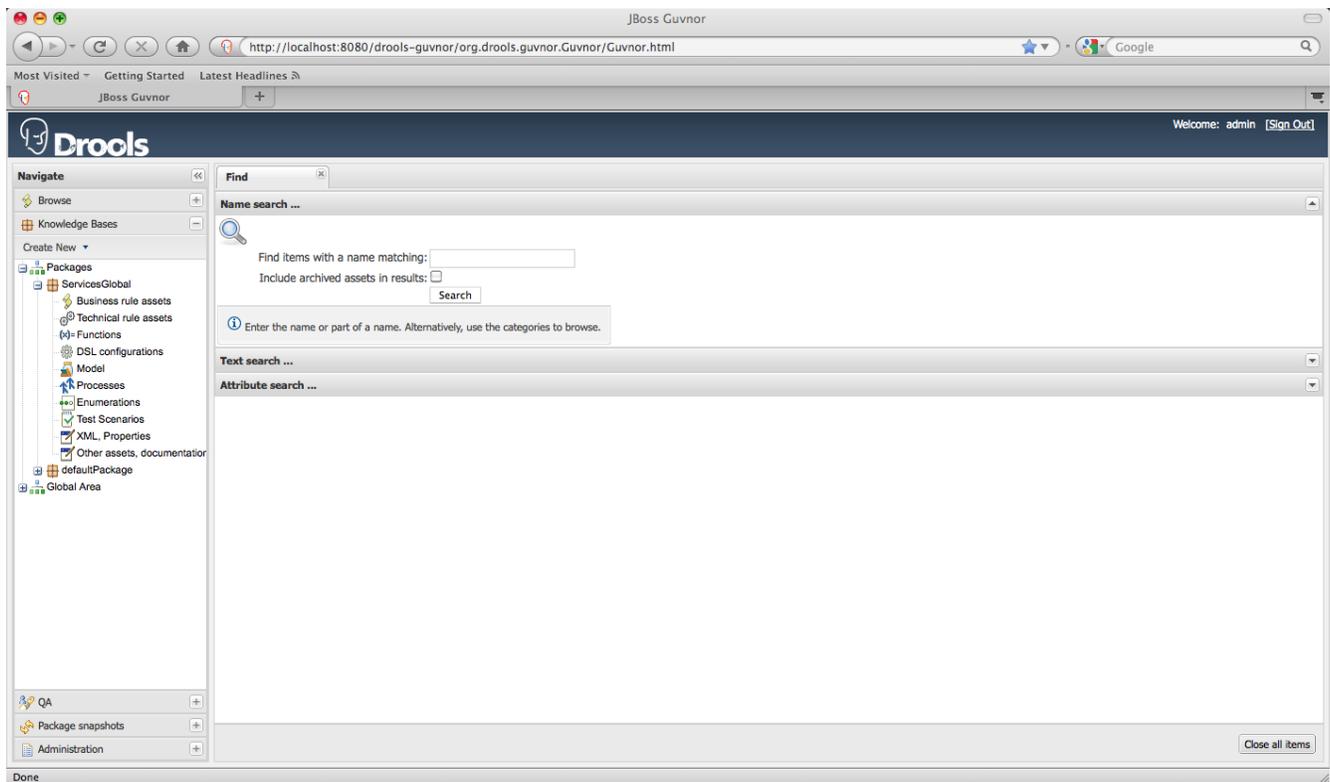
3) Next add categories for XML Schemas, Sample Messages, WSDLs, BPEL Process Definitions JBossESB Configurations, Smooks Transformations, Scenario Diagrams, Choreography Models, Deployment Archives, JMS Destinations, Java Source, Documentation, Other.



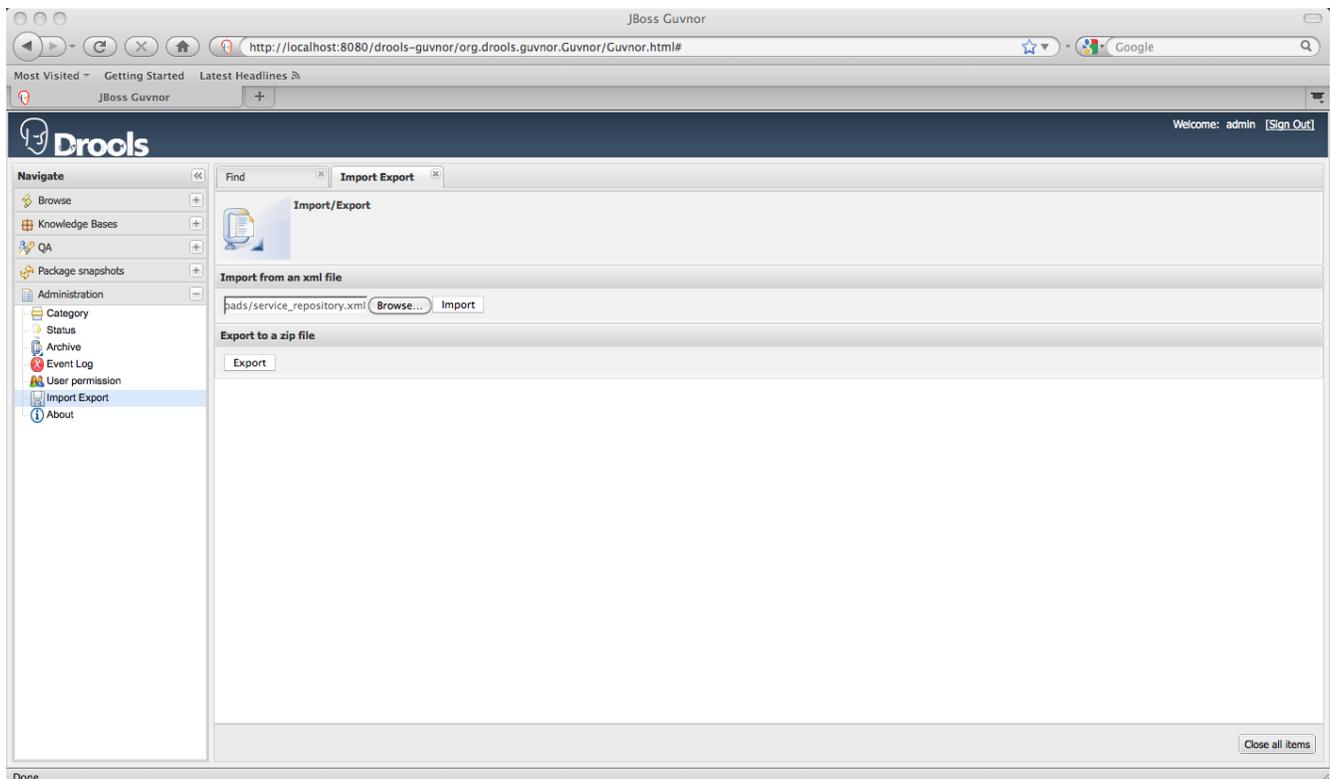
4) Add statuses: Business Analysis, Architecture Modeling, Service Oriented Analysis, Service Oriented Design, Service Development, Service Testing, Deployed, Retired



5) Create a ServicesGlobal package for XSDs, sample messages, and other non service specific artifacts.



6) Export repository, unzip it, and re-name the xml file service\_repository.xml.

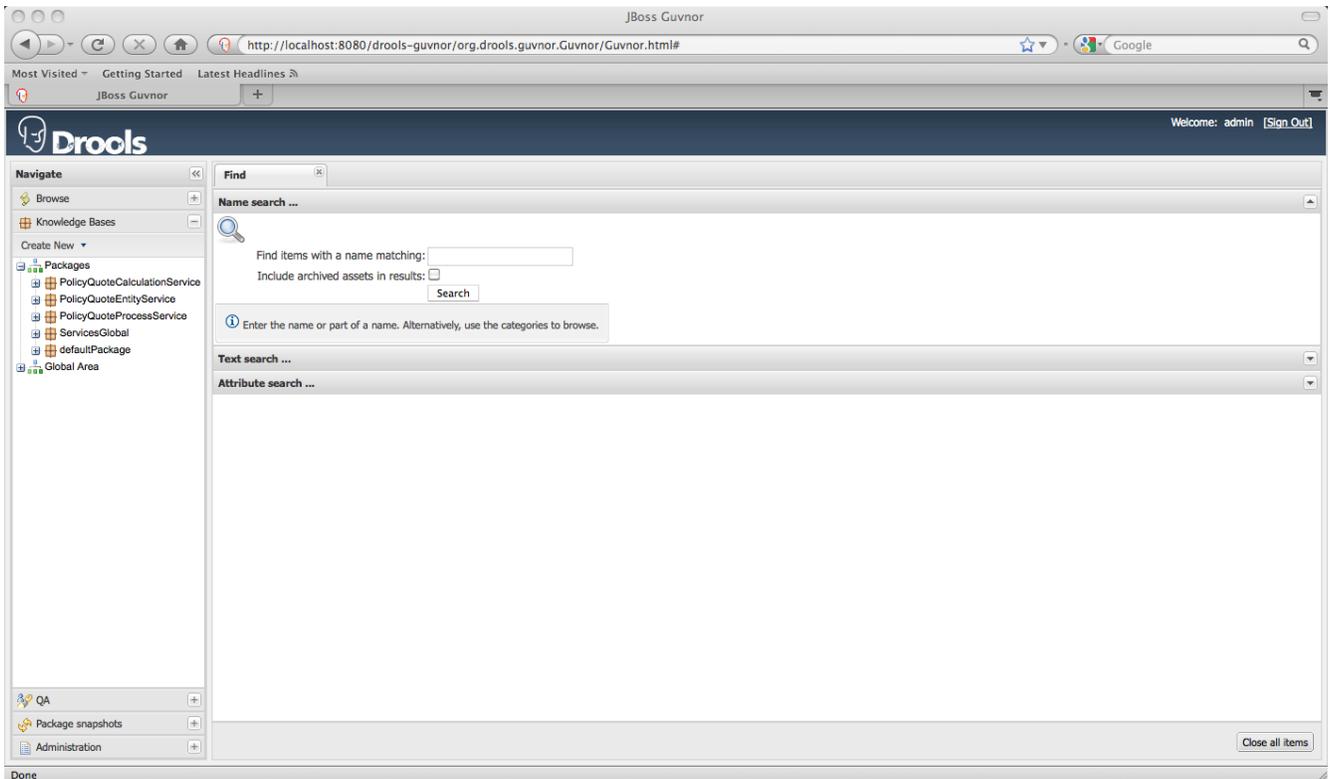
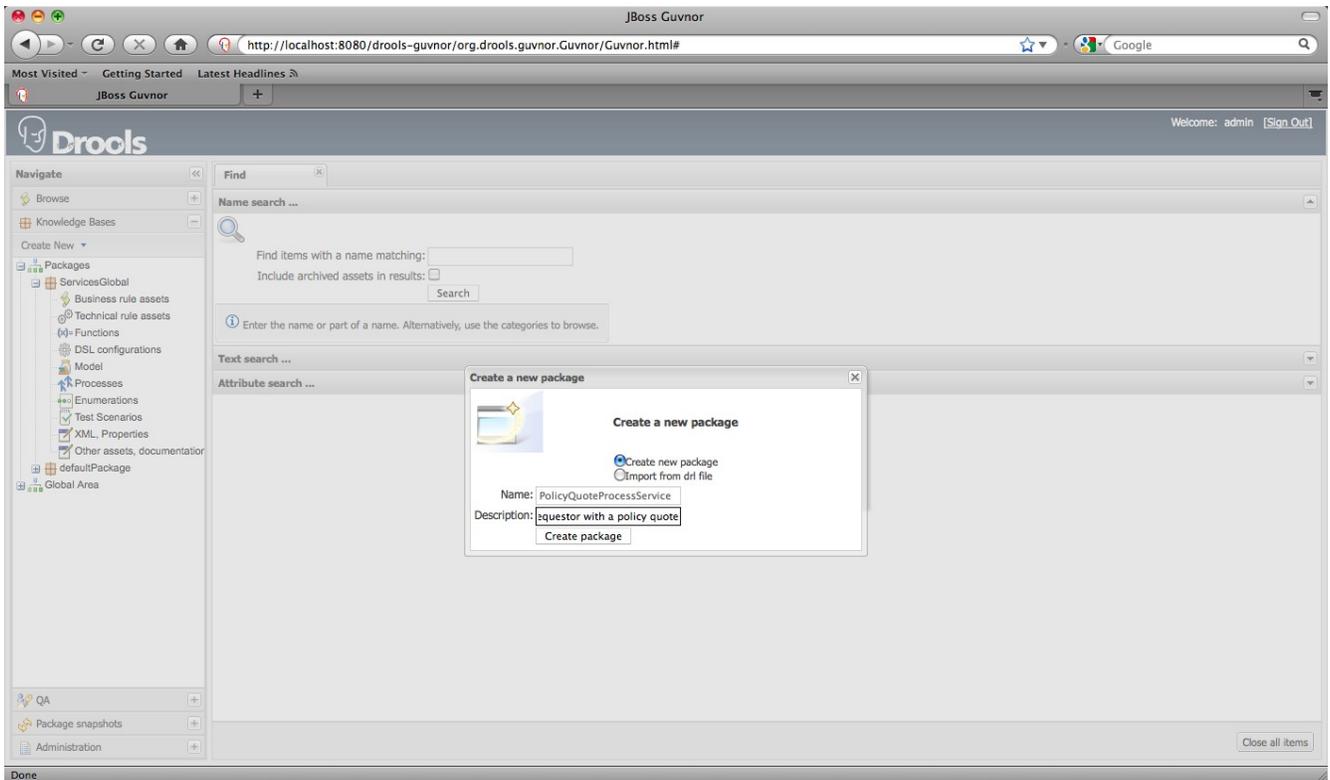


## Adding Artifacts as Assets to Guvnor

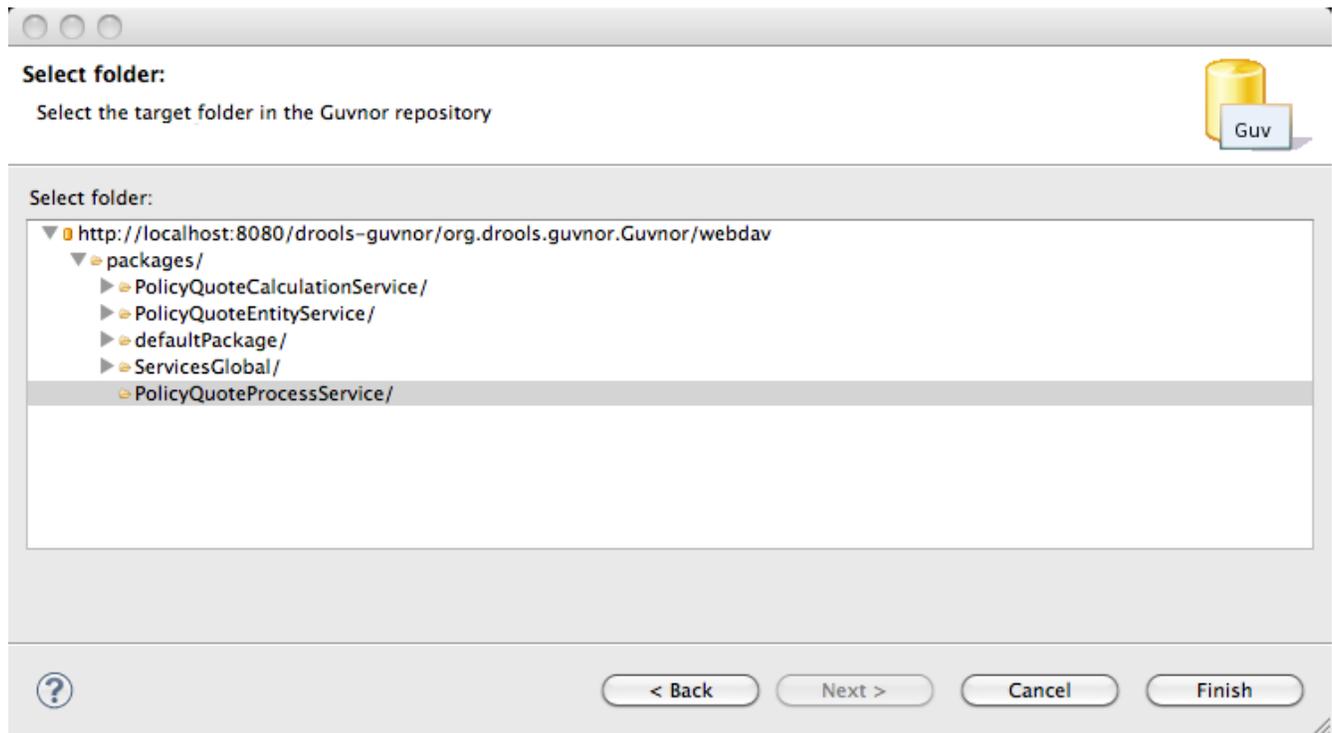
Note - these are the steps I performed to test the capabilities of this repository structure by adding artifacts from the SOA Workshop PolicyQuote labs to Guvnor. If one was creating these artifacts over time (as with the labs) they might enter these artifacts in a similar, but not necessarily the same order. Also, the initial project location for some of the files might be different (e.g., sample messages, XSDs, and WSDLs).

You do not need to re-create these steps (unless you wanted to practice adding artifacts / assets to Guvnor). In this case you need to have created / imported all of the SOA Workshop lab projects. Otherwise you can skip to Checking out Assets.

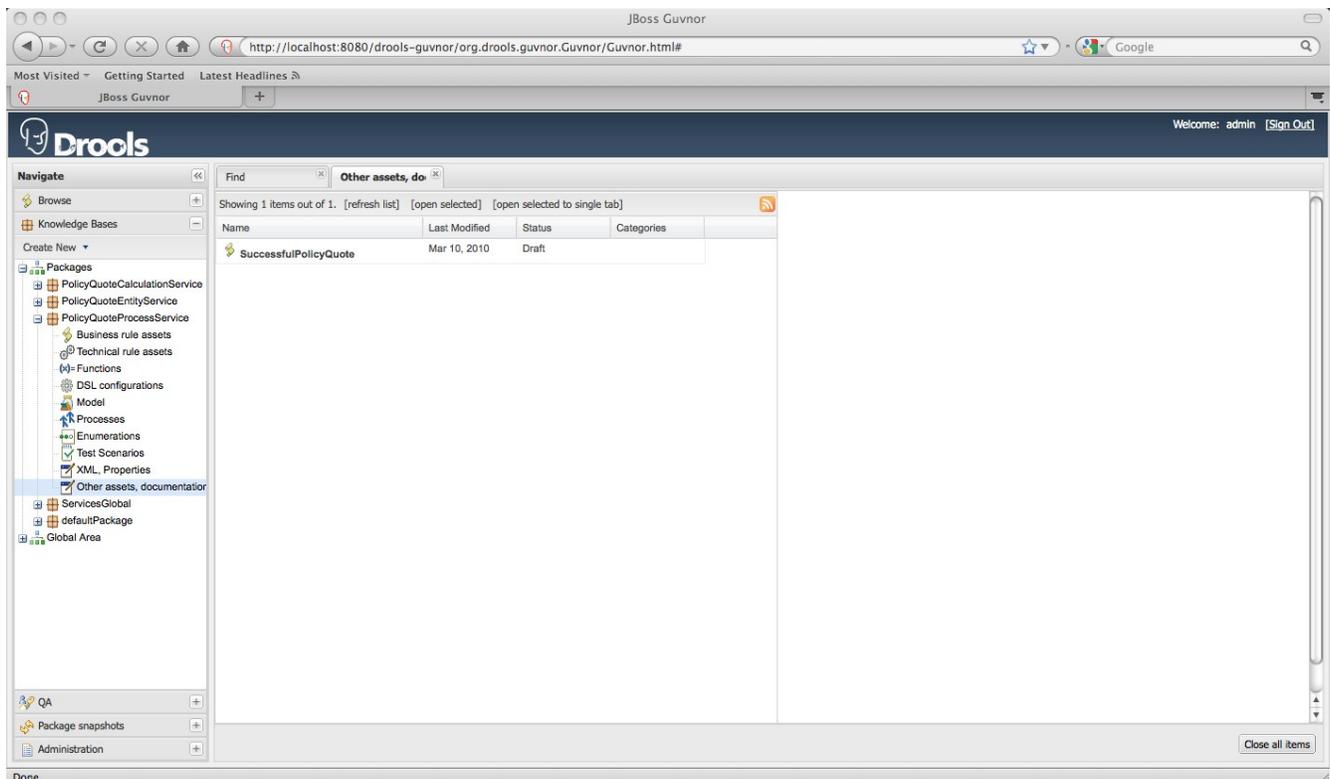
- 1) Install Guvnor on a separate JBossEAB instance. Start server, logon to Guvnor, don't install samples.
- 2) Import `service_repository.xml`
- 3) Create Knowledge Package for each Service (e.g., `PolicyQuoteProcessService`, `PolicyQuoteEntityService`, `PolicyQuoteCalculationService`).



4) Open JBDS and open the Guvnor Repository perspective. Add a new Guvnor Repository location. Now open policyquote-models. Right click on the SuccessfulPolicyQuote.scn and choose Guvnor -> Add. Choose the PolicyQuoteProcessService as the folder to save to.



5) Go into Guvnor -> Knowledge Bases -> PolicyQuoteProcessService -> Other assets and open SuccessfulPolicyQuote. Show More Info, and Add Categories Services/Orchestrated Services and Scenario Diagrams. Save Changes.

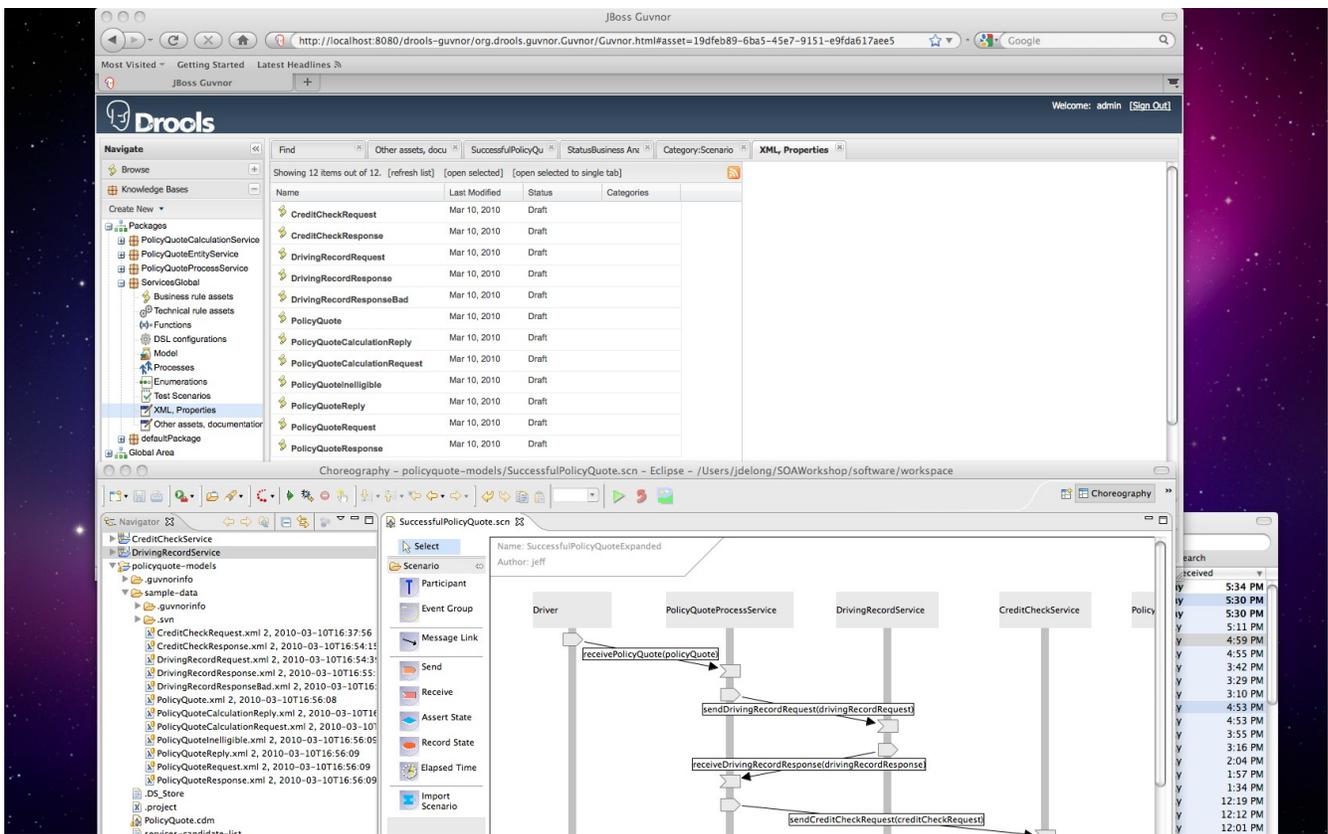
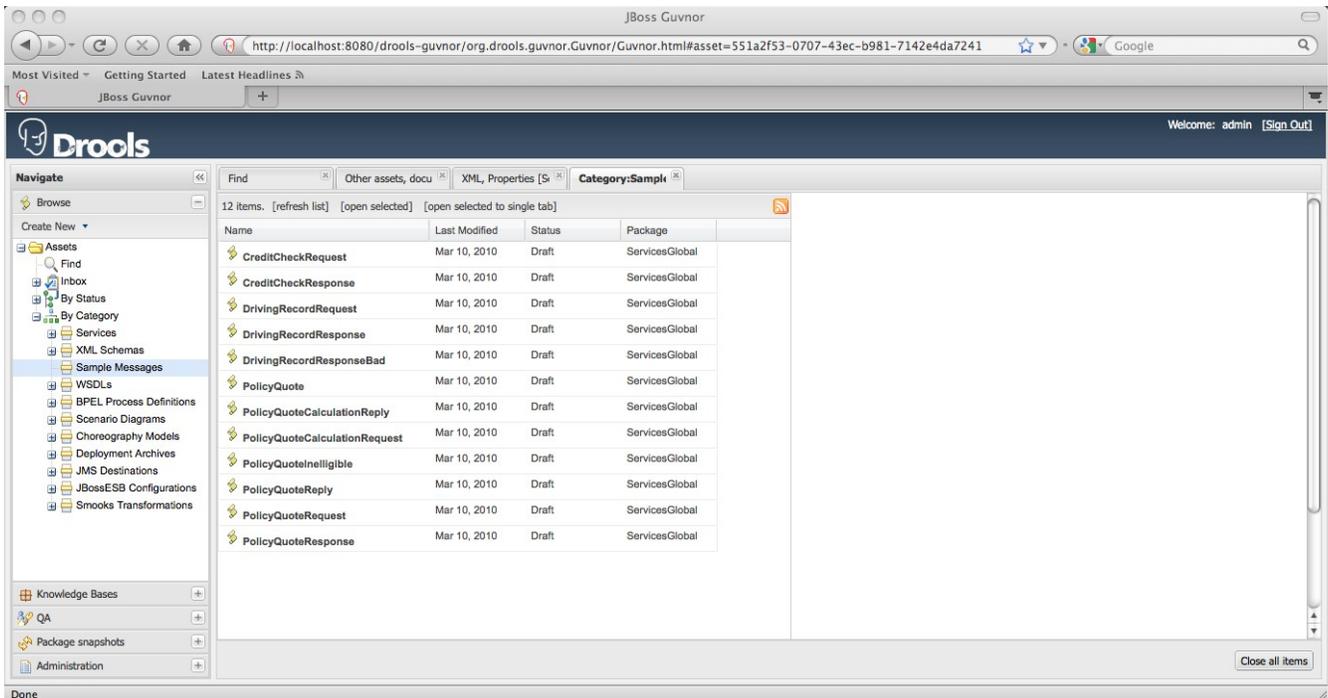


6) Next, Change Status to BusinessAnalysis. Now highlight Browse -> Assets and look under Status Business Analysis and Category Scenario Diagrams. You should see the SuccessfulPolicyQuote.

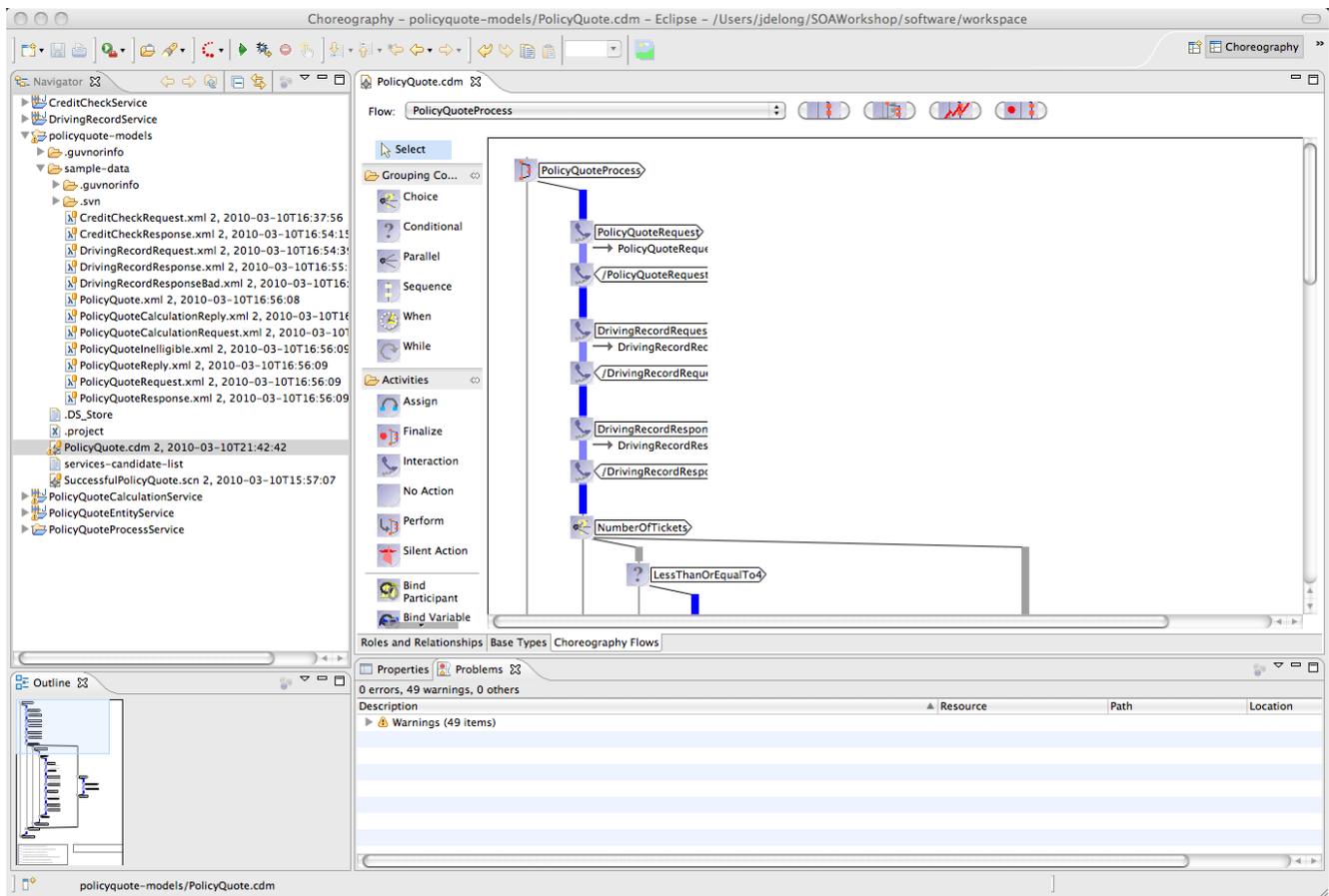
The image shows a screenshot of the Drools Guvnor web interface and the Eclipse IDE. The browser window displays the Guvnor home page with a search bar and navigation menu. The main content area shows a table of assets, including 'SuccessfulPolicyQuote' with a last modified date of Mar 10, 2010. Below the browser, the Eclipse IDE is open to a choreography diagram for 'SuccessfulPolicyQuote.scn'. The diagram shows a sequence of messages between participants: Driver, PolicyQuoteProcessService, DrivingRecordService, and CreditCheckService. The messages are: 'receivePolicyQuote(policyQuote)' from Driver to PolicyQuoteProcessService, 'sendDrivingRecordRequest(drivingRecordRequest)' from PolicyQuoteProcessService to DrivingRecordService, and 'receiveDrivingRecordResponse(drivingRecordResponse)' from DrivingRecordService to PolicyQuoteProcessService. The Eclipse IDE also shows a project navigator on the left with a tree view of the project structure.

7) Next add a few sample messages to the ServicesGlobal package. (You can actually Shift click the entire set of sample messages and right click add to add them all at once.

8) Once they have been added, open them up and add the Category Sample Messages.



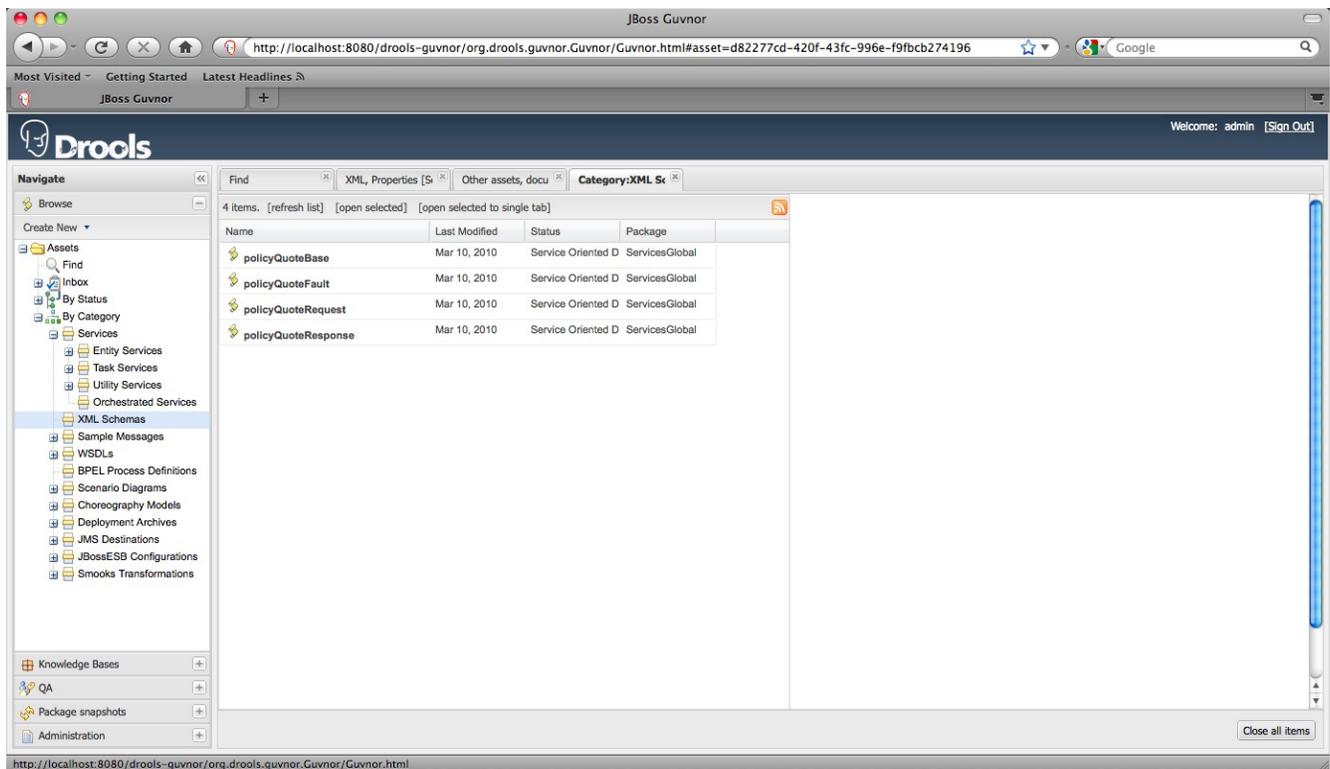
9) Next add the PolicyQuote.cdm file into the PolicyQuoteProcessService in Guvnor.



10) Open the PolicyQuote.cdm in Guvnor, you will find it in the Other assets folder, and add the categories Services/Orchestrated Services and Choreography Model. Change the Status to Architectural Modeling and Save and close.

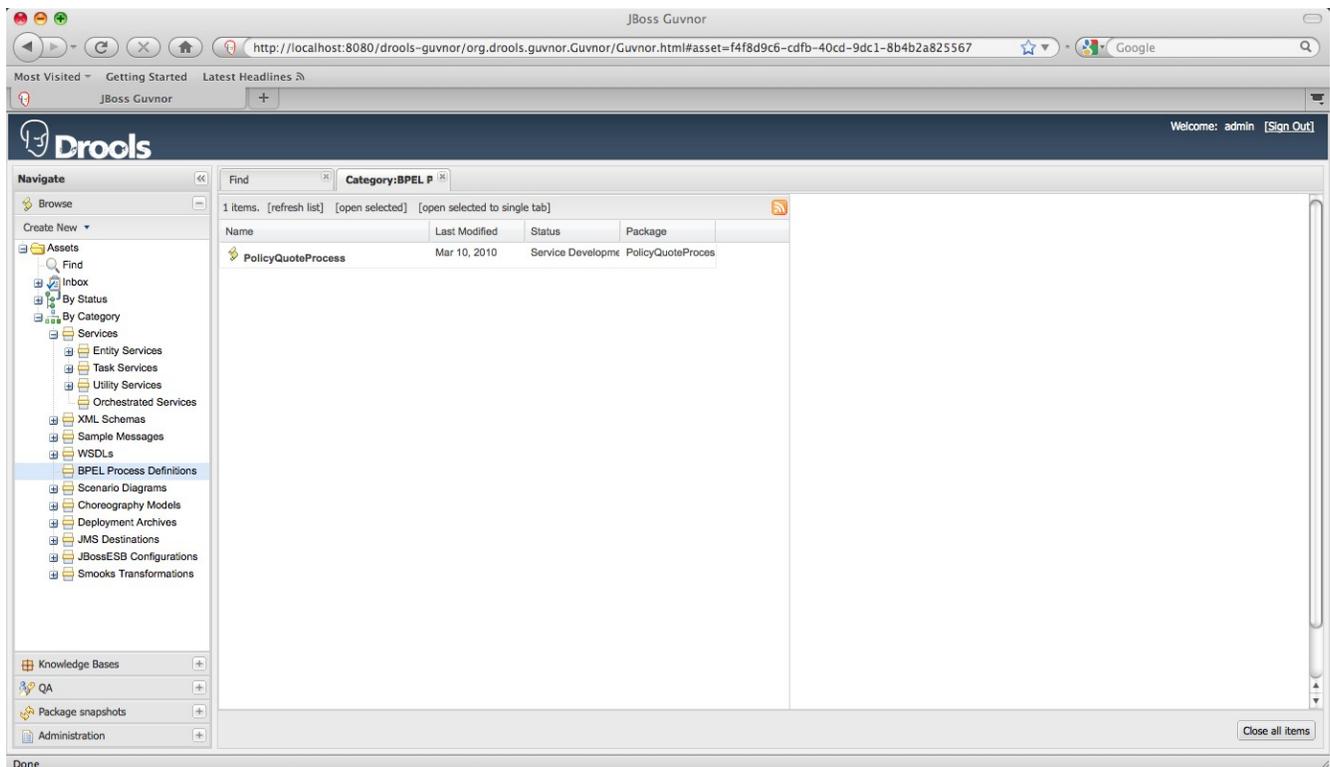
11) Next add the PolicyQuoteRequest.xsd, PolicyQuoteResponse.xsd, PolicyQuoteFault.xsd, and PolicyQuoteBase.xsd into Guvnor into the Service. Note adding xsd files will cause Eclipse to report errors; these can be ignored.

12) Open in Guvnor, you will find it in the Other assets folder. Add the category XML Schemas and the Status Service Oriented Design.



13) Next add the PolicyQuoteProcess service bpel process definition to Guvnor in as part of the PolicyQuoteProcessService.

14) Open in Guvnor, you will find it in the Other assets folder (not sure why it did not wind up under Processes). Add the categories Services/Orchestrated Services and BPEL Process Definition. Change the Status to Service Development and Save and close.



15) Next add the PolicyQuoteProcessArtifacts.wsdl, PolicyQuoteProcessService.wsdl, and DrivingRecordCallbackService.wsdl to the PolicyQuoteProcessService in Guvnor. Open these assists in Guvnor and categories Services/Orchestrated Services and WSDL. Change the Status to Service Development and Save and close. Note adding wsdl files will cause Eclipse to report errors; these can be ignored.

16) Next open the PolicyQuoteEntityService in JBDS. Add the jboss-esb.xml and deployment.xml into the PolicyQuoteEntityService in Guvnor.

17) Open in Guvnor, you will find these newly added files in the XML, Properties folder. Add the categories Services / Entity Services and JBossESB Configuration and the Status Service Development.

18) Next add the PolicyQuoteConfigSmooks.xml, PolicyQuoteReplyConfigSmooks.xml, Add PolicyQuoteEntity.jar and PolicyQuotePersistenceAction.java into the PolicyQuoteEntityService in Guvnor. Add Task.java into ServicesGlobal.

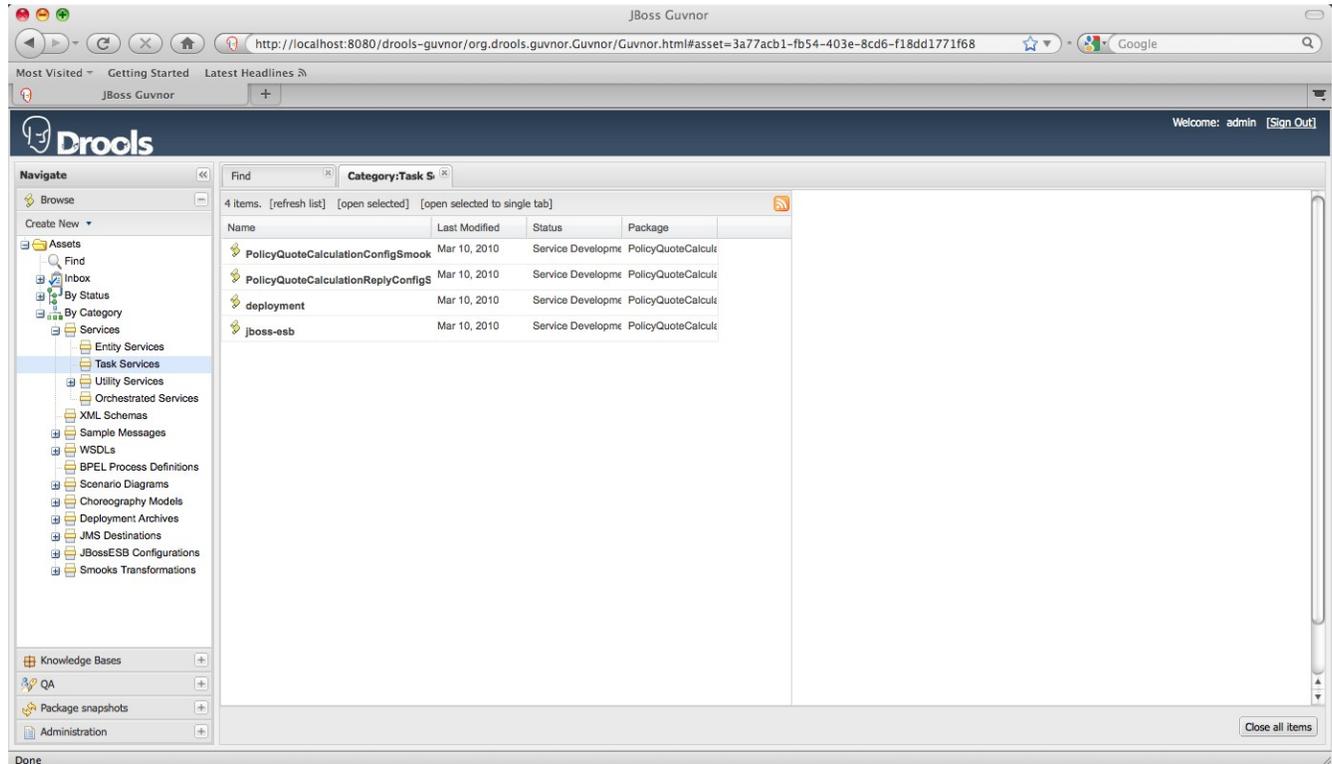
19) Open in Guvnor, you will find these newly added files in the XML, Properties folder of the PolicyQuoteEntityService and ServiceGlobal. Add the categories Services / Entity Services and SmooksTransformation, Deployment Archive, or Java Source, and the Status Service Development. Note that PolicyQuoteEntity.jar is under the Model folder.

20) Next open the PolicyQuoteCalculationService in JBDS. Add the jboss-esb.xml and deployment.xml into the PolicyQuoteCalculationService in Guvnor.

21) Open in Guvnor, you will find these newly added files in the XML, Properties folder. Add the categories Services / Task Services and JBossESB Configuration and the Status Service Development.

22) Next add the policyquotecalculatation.drl, PolicyQuoteCalculationConfigSmooks.xml and PolicyQuoteCalculationReplyConfigSmooks.xml, Policy.java, and Driver.java into the PolicyQuoteCalculationService in Guvnor.

23) Open in Guvnor, you will find these newly added files in the XML, Properties folder. Add the categories Services / Task Services and SmooksTransformation or Java Source and the Status Service Development. The policyquotecalculatation.drl will be in the Technical rule assets folder. Open it and add the categories Services / Task Services and the Status Service Development.



24) Open the PolicyQuoteProcessService project in JBDS. Add CreditCheckService.wsdl and DrivingRecordService.wsdl to Guvnor in the ServicesGlobal package, and then add the PolicyQuoteCalcualtionService.wsdl and PolicyQuoteEntityService.wsdl to their respective packages in Guvnor. Open the packages in Guvnor and assign the appropriate categories and status.

25) AddCreditCheckService.esb and DrivingRecordService.esbl to ServicesGlobal by using the Create New -> File in Guvnor. Add the category DeploymentArchive and the Status Deployed.

26) Add policyquote-destinations.xml to ServicesGlobal by using the Create New -> File in Guvnor. Add the category JMS Destinations and the Status Deployed.

27) Export repository, unzip it, and re-name the xml file policyquote\_service\_repository.xml.

## Checking out Assets

- 1) Install Guvnor on a separate JBossEAP instance. Start server, logon to Guvnor, don't install samples.
- 2) Import policyquote\_service\_repository.xml.
- 3) Start JBDS and create a new ESB Project named PolicyQuoteEntityService. Go into the META-INF folder and delete the jobs-esb.xml file.
- 4) Use the File -> New -> Guvnor -> Resources from Guvnor and add the PolicyQuoteConfigSmooks.xml, PolicyQuoteReplyConfigSmooks.xml from the PolicyQuoteEntityService package to the esbcontent folder.
- 5) Next add the deployment.xml and jboss-esb.xml from the PolicyQuoteEntityService package to the META-INF folder.
- 6) Then add PolicyQuoteEntity.jar to the root of the project, and PolicyQuotePersistenceAction.java and Task.java (from ServicesGlobal) into a folder src/org/acme/insurance.
- 7) Repeat for PolicyQuoteCalculationService, placing the files into the correct folder.
- 8) Repeat for PolicyQuoteProcessService placing the files in the bpel content folder.

## Issues

- 1) This solution does not provide for setting the status or versioning of the service as a package (since Guvnor does not support package status or versioning).