02.04.01 How to build the HRE Main Window

2017-06-17	Michael Erichsen	Original draft

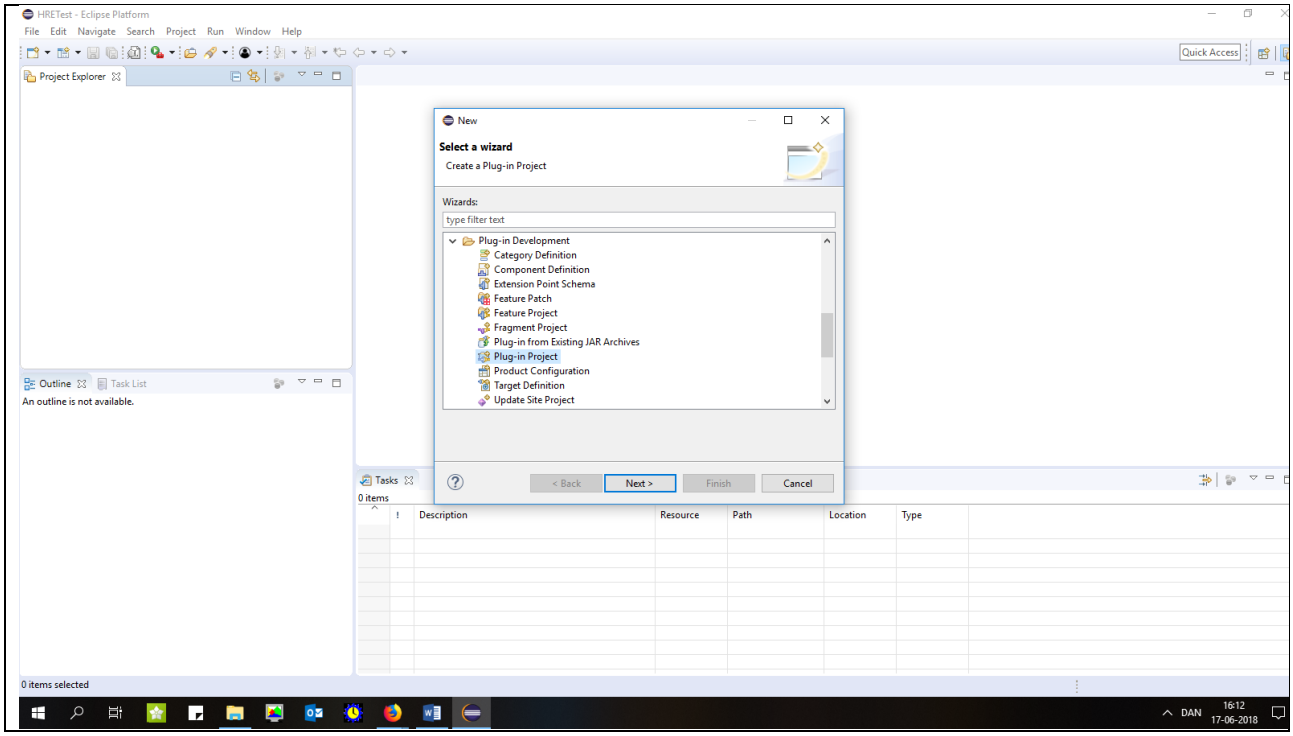
HRE is an Eclipse e4 Rich Client Platform (RCP) application.

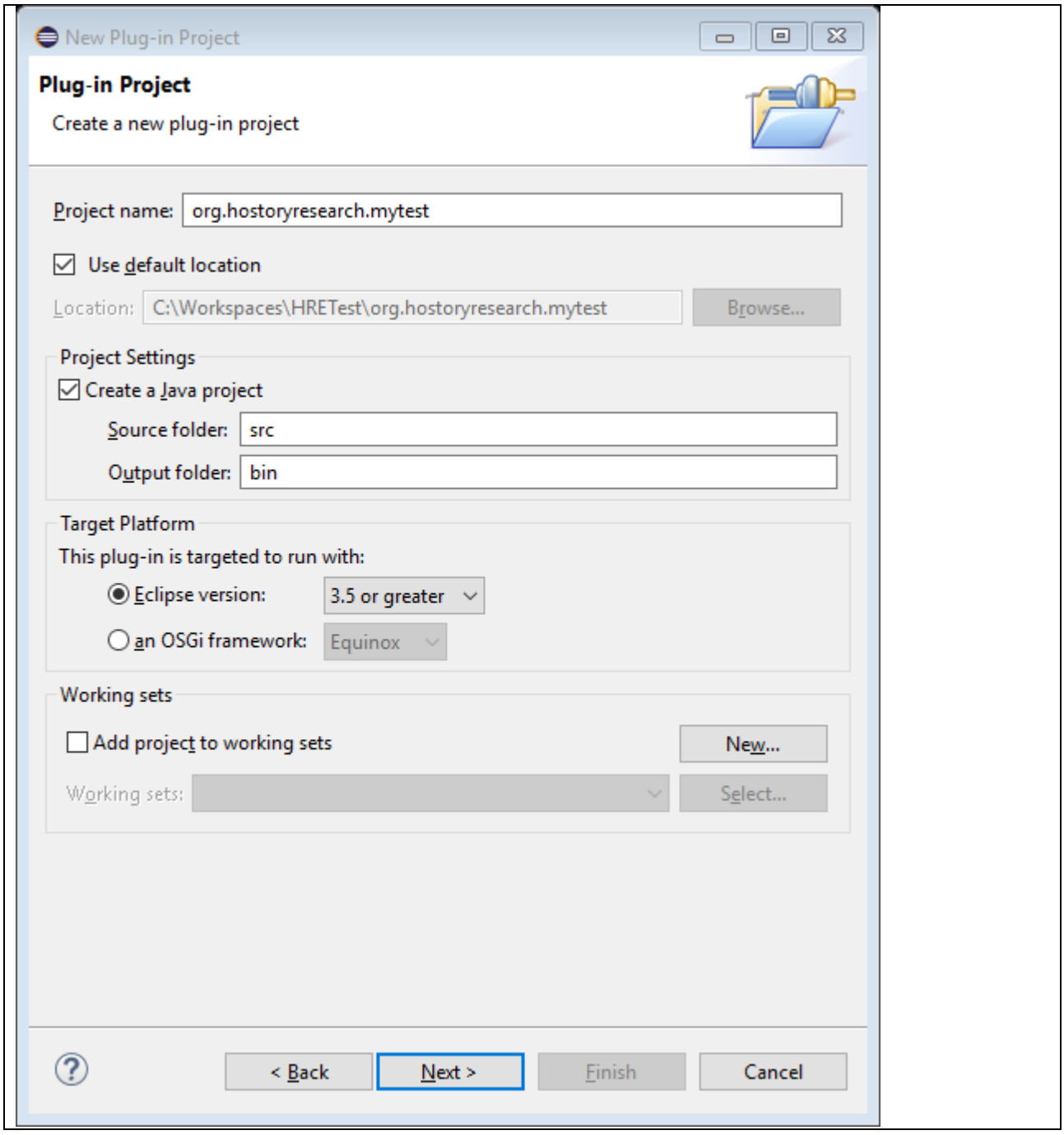
Tooling

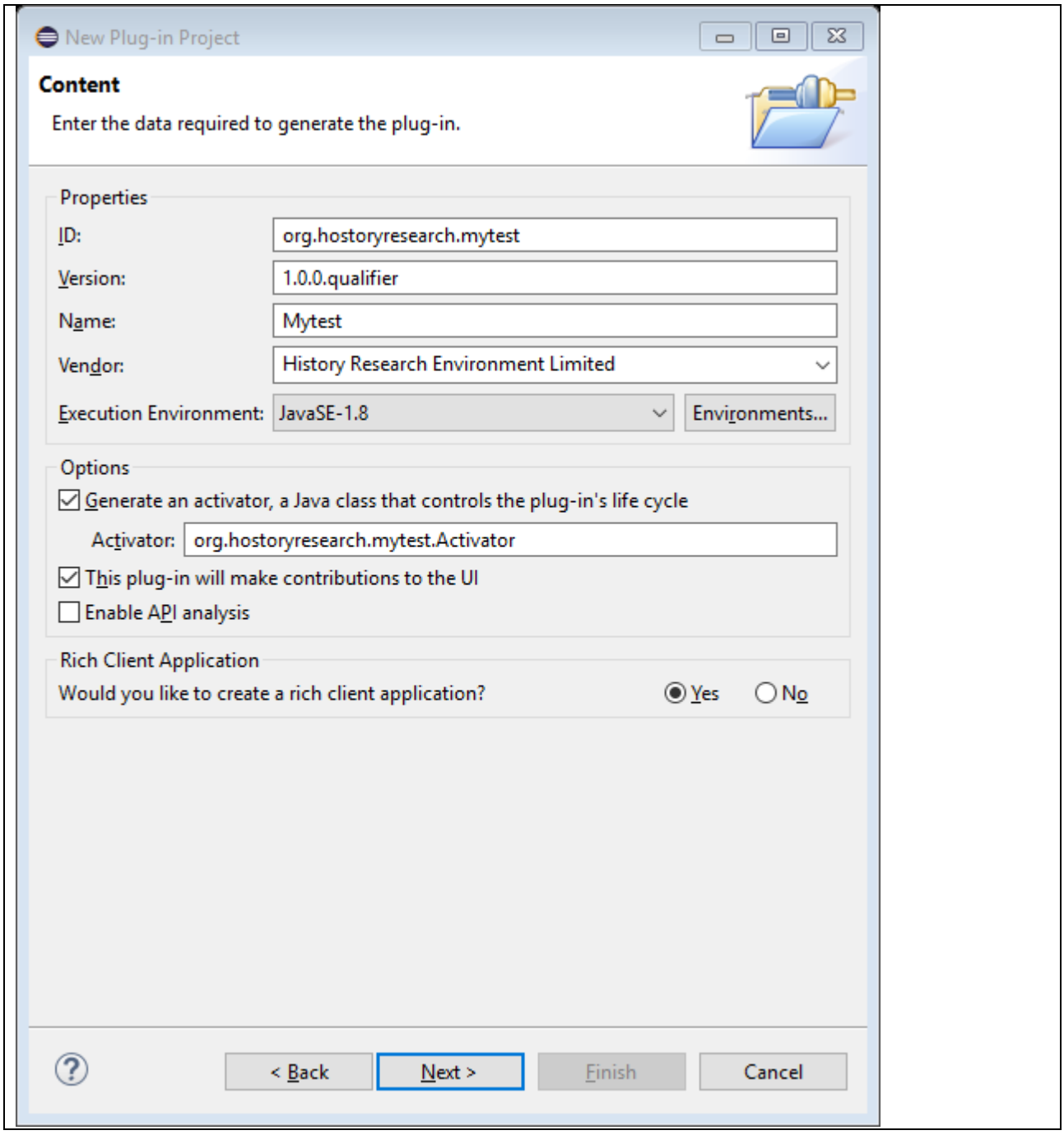
You need an Eclipse workbench for RCP programmers.

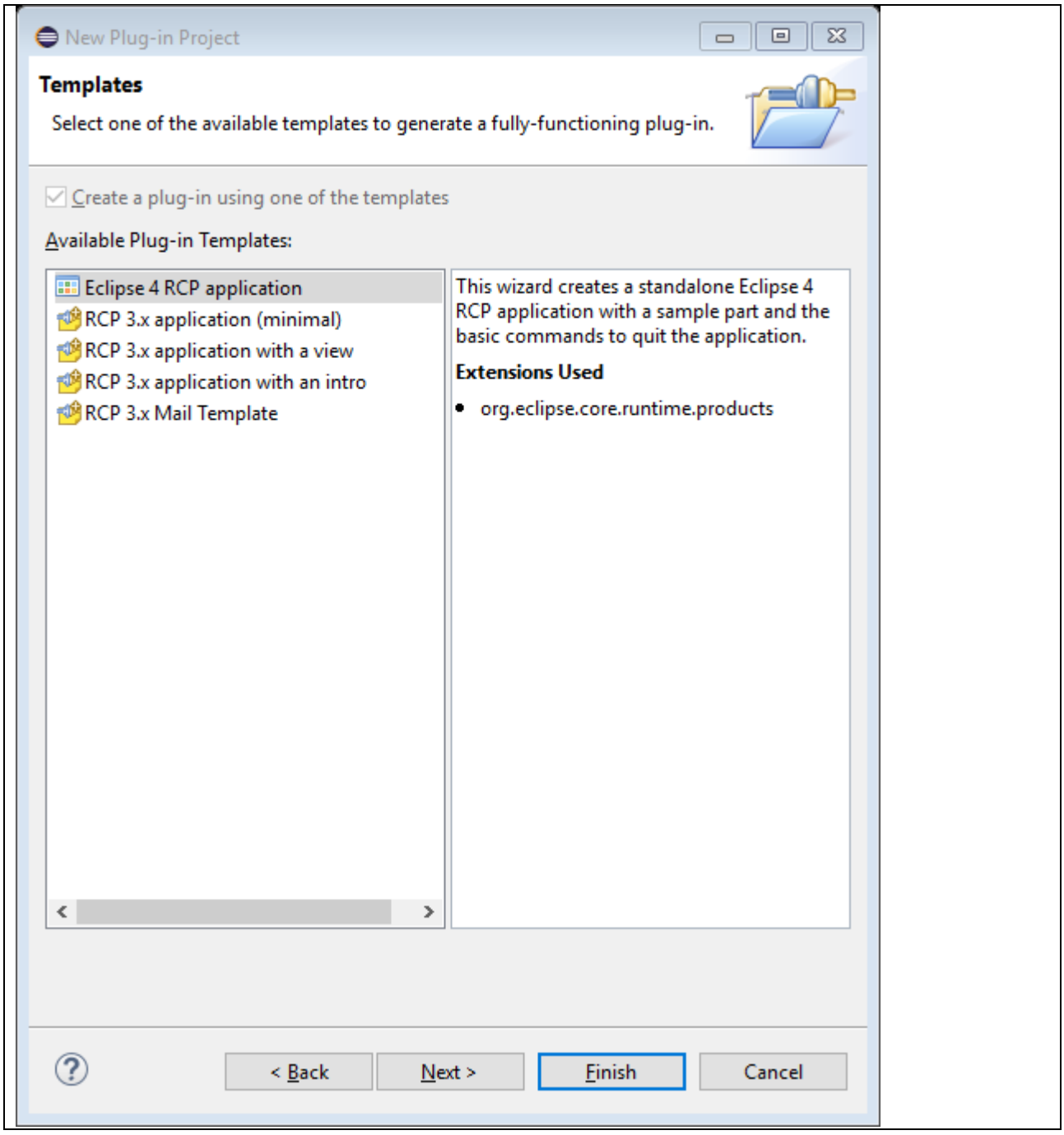
Look and feel

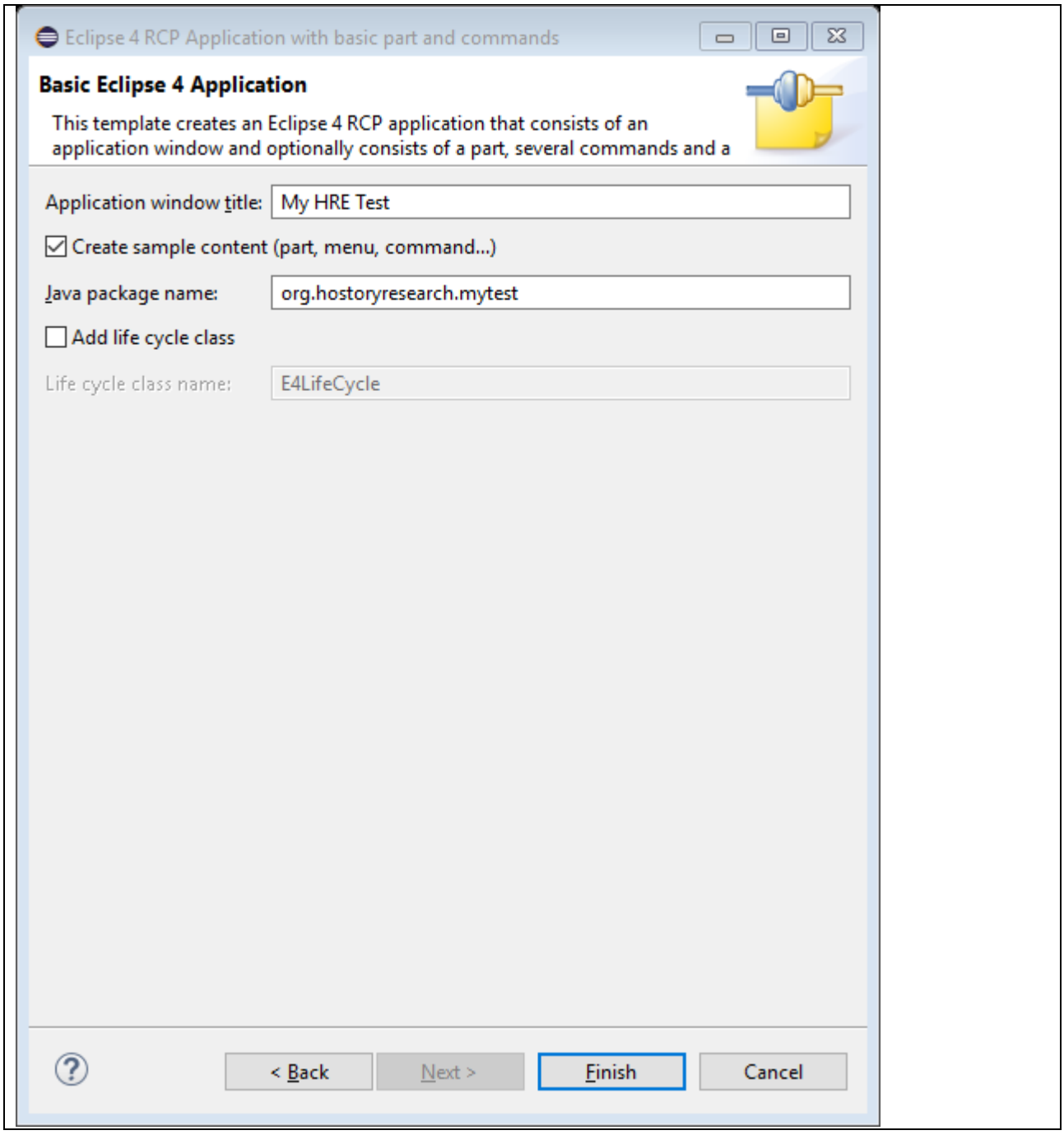
You can get to know the tool by building the default e4 RCP application:




New Plug-in Project
Plug-in Project
Create a new plug-in project
Project name: org.hostoryresearch.mytest
Use default location
Location: C:\Workspaces\HRETest\org.hostoryresearch.mytest
Browse...
Project Settings
Create a Java project
Source folder: src
Output folder: bin
Target Platform
This plug-in is targeted to run with:
Eclipse version: 3.5 or greater
an OSGi framework: Equinox
Working sets
Add project to working sets
New...
Working sets:
Select...
< Back
Next >
Finish
Cancel

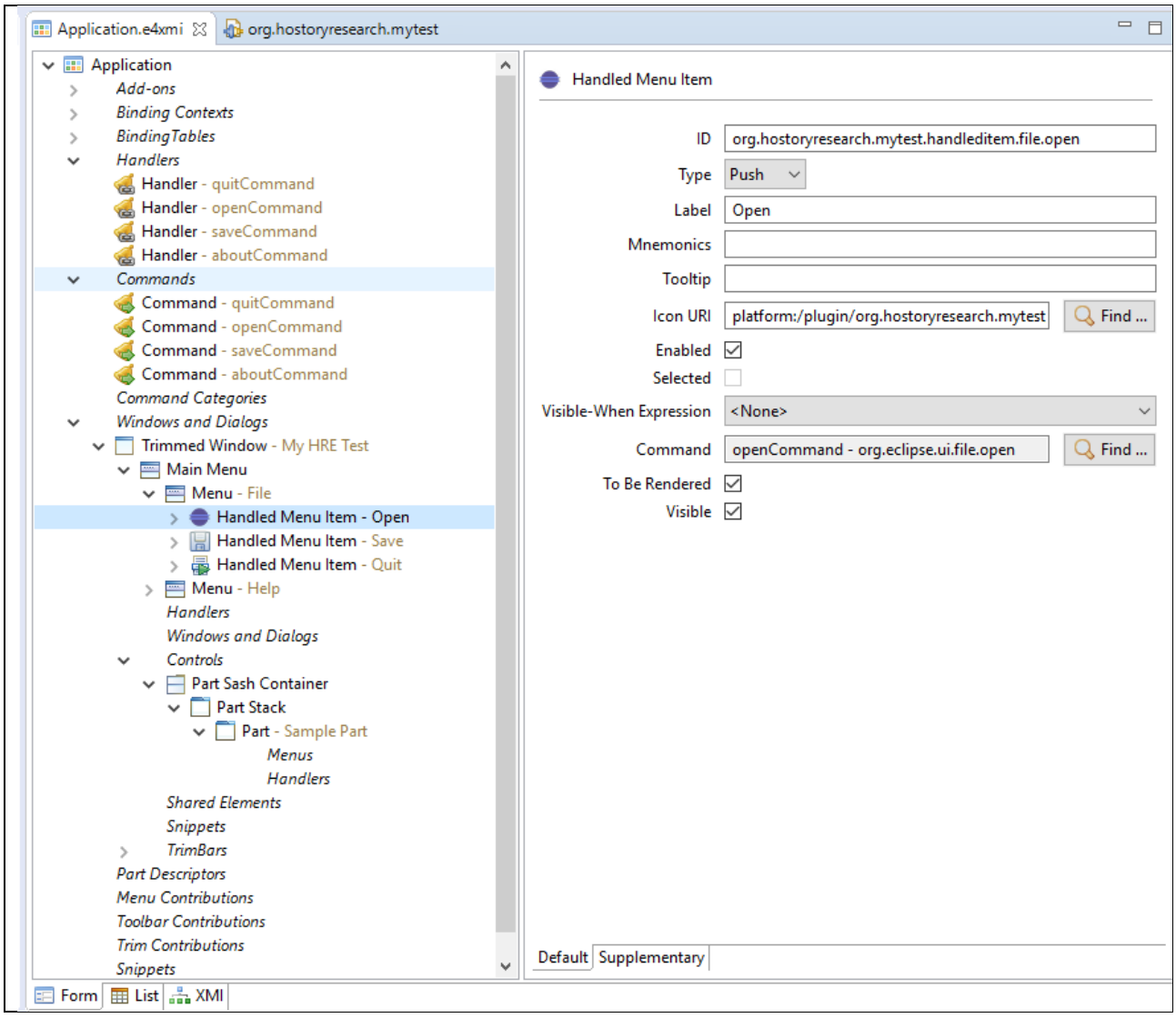

New Plug-in Project
Content
Enter the data required to generate the plug-in.
Properties
ID:
org.hostoryresearch.mytest
Version:
1.0.0.qualifier
Name:
Mytest
Vendor:
History Research Environment Limited
Execution Environment:
JavaSE-1.8
Environments...
Options
Generate an activator, a Java class that controls the plug-in's life cycle
Activator:
org.hostoryresearch.mytest.Activator
This plug-in will make contributions to the UI
Enable API analysis
Rich Client Application
Would you like to create a rich client application?
Yes
No
< Back
Next >
Finish
Cancel


New Plug-in Project
Templates
Select one of the available templates to generate a fully-functioning plug-in.
Create a plug-in using one of the templates
Available Plug-in Templates:
Eclipse 4 RCP application
RCP 3.x application (minimal)
RCP 3.x application with a view
RCP 3.x application with an intro
RCP 3.x Mail Template
This wizard creates a standalone Eclipse 4 RCP application with a sample part and the basic commands to quit the application.
Extensions Used
org.eclipse.core.runtime.products
< Back
Next >
Finish
Cancel

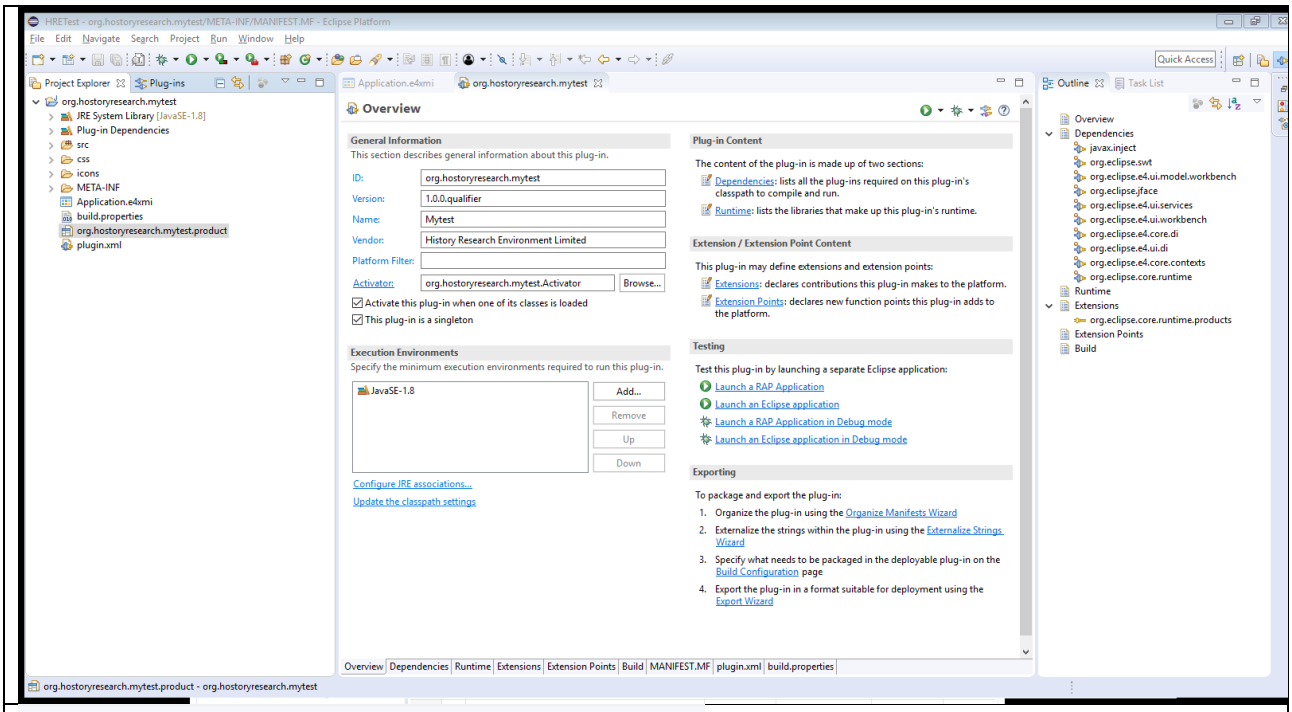


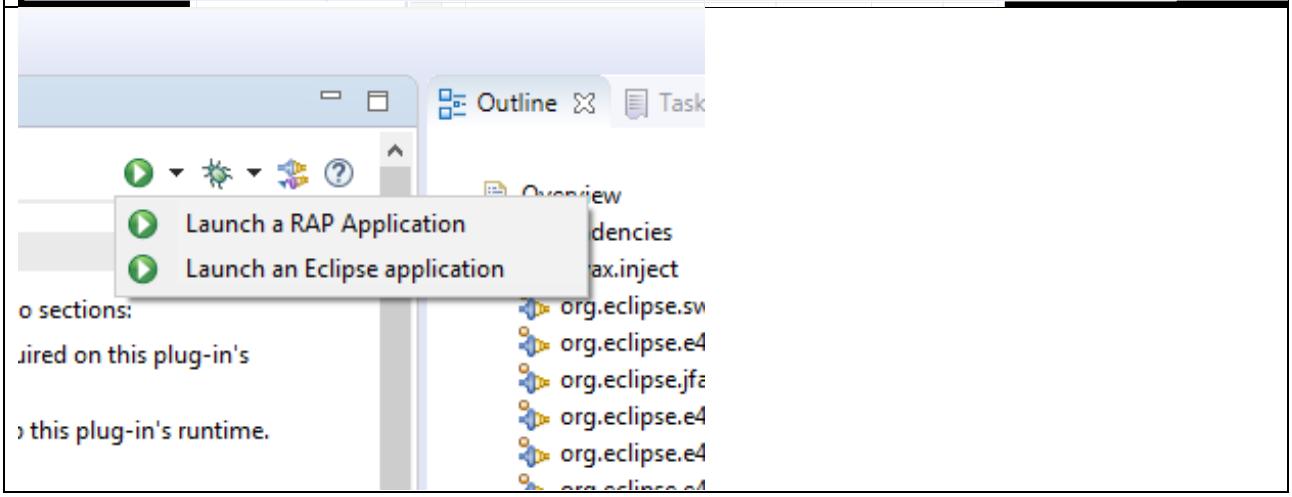
Two views are opened when clicking Finished.

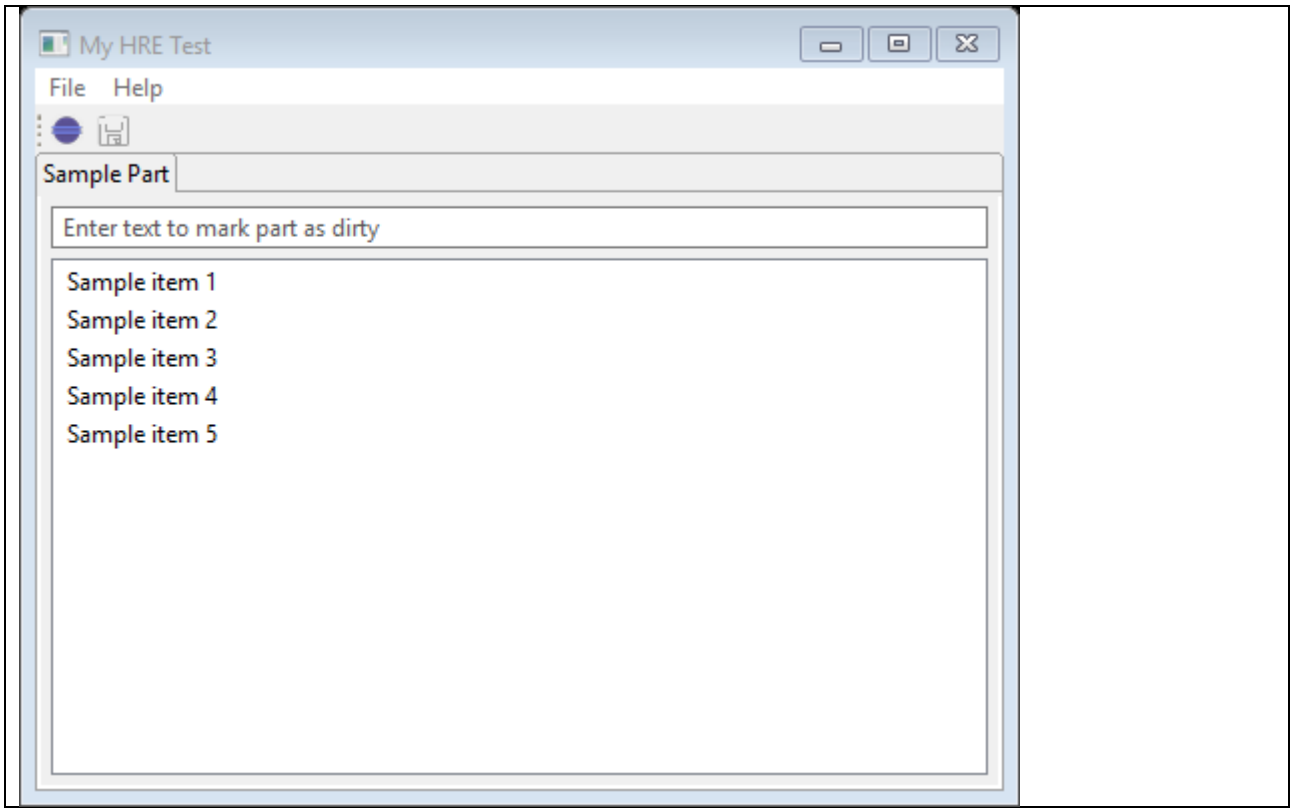
Application.e4xmi defines menus, perspectives, view parts etc. You can play around with this.



You can launch the Eclipse application from the product file, which is also opened:

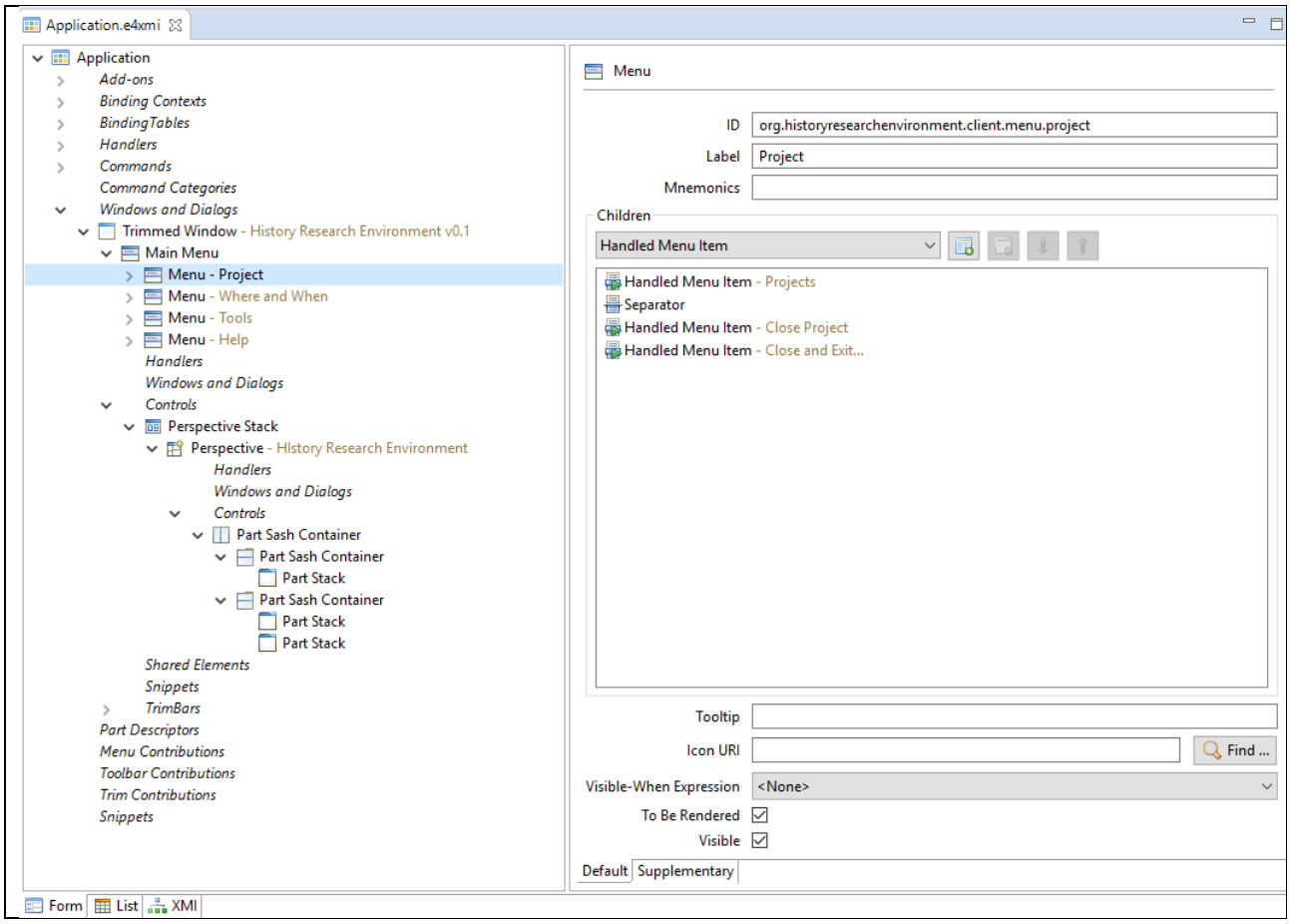

HRETest - org.hostoryresearch.mytest/META-INF/MANIFEST.MF - Eclipse Platform
File Edit Navigate Search Project Run Window Help
Quick Access
Project Explorer
Plug-ins
org.hostoryresearch.mytest
JRE System Library [JavaSE-1.8]
Plug-in Dependencies
src
css
icons
META-INF
Application.e4xmi
build.properties
org.hostoryresearch.mytest.product
plugin.xml
Application.e4xmi
org.hostoryresearch.mytest
Overview
General Information
This section describes general information about this plug-in.
ID: org.hostoryresearch.mytest
Version: 1.0.0.qualifier
Name: Mytest
Vendor: History Research Environment Limited
Platform Filter:
Activator: org.hostoryresearch.mytest.Activator
Browse...
Activate this plug-in when one of its classes is loaded
This plug-in is a singleton
Execution Environments
Specify the minimum execution environments required to run this plug-in.
JavaSE-1.8
Add...
Remove
Up
Down
Configure JRE associations...
Update the classpath settings
Plug-in Content
The content of the plug-in is made up of two sections:
Dependencies: lists all the plug-ins required on this plug-in's classpath to compile and run.
Runtime: lists the libraries that make up this plug-in's runtime.
Extension / Extension Point Content
This plug-in may define extensions and extension points:
Extensions: declares contributions this plug-in makes to the platform.
Extension Points: declares new function points this plug-in adds to the platform.
Testing
Test this plug-in by launching a separate Eclipse application:
Launch a RAP Application
Launch an Eclipse application
Launch a RAP Application in Debug mode
Launch an Eclipse application in Debug mode
Exporting
To package and export the plug-in:
1. Organize the plug-in using the Organize Manifests Wizard
2. Externalize the strings within the plug-in using the Externalize Strings Wizard
3. Specify what needs to be packaged in the deployable plug-in on the Build Configuration page
4. Export the plug-in in a format suitable for deployment using the Export Wizard
Overview Dependencies Runtime Extensions Extension Points Build MANIFEST.MF plugin.xml build.properties
org.hostoryresearch.mytest.product - org.hostoryresearch.mytest
Outline
Task List
Overview
Dependencies
javax.inject
org.eclipse.swt
org.eclipse.e4.ui.model.workbench
org.eclipse.jface
org.eclipse.e4.ui.services
org.eclipse.e4.ui.workbench
org.eclipse.e4.core.di
org.eclipse.e4.ui.di
org.eclipse.e4.core.contexts
org.eclipse.core.runtime
Runtime
Extensions
org.eclipse.core.runtime.products
Extension Points
Build


Outline
Launch a RAP Application
Launch an Eclipse application
o sections:
uired on this plug-in's
this plug-in's runtime.
org.eclipse.sw
org.eclipse.e4
org.eclipse.jfa
org.eclipse.e4
org.eclipse.e4



The HRE Main Window

The main window has a hierarchy of perspective stack, perspective etc.:



None of the current view parts are visible here, as they are created dynamically by handler code.

Read more

http://www.vogella.com/tutorials/eclipse.html