

Chapter 1: Creating Your First Plug-in



New Hello World Command plug-in project


Sample Command Contribution

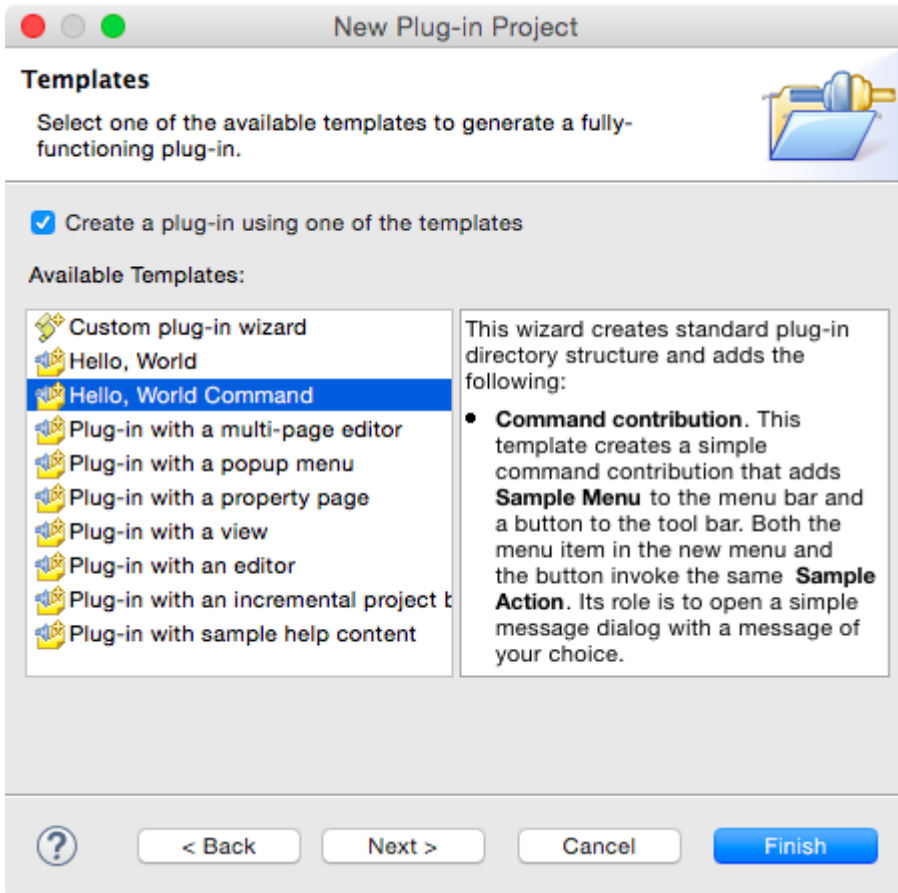
This template will generate a sample command contribution with a menu, a menu item and a tool bar button.

Java Package Name:

Handler Class Name:

Message Box Text:





New Plug-in Project

Content
Enter the data required to generate the plug-in.

Properties

ID:

Version:

Name:

Vendor:

Execution Environment:

Options

Generate an activator, a Java class that controls the plug-in's life cycle
Activator:

This plug-in will make contributions to the UI

Enable API analysis


Rich Client Application

Would you like to create a 3.x rich client application? Yes No

New Plug-in Project

Plug-in Project

Create a new plug-in project



Project name:

Use default location

Location:

Project Settings

Create a Java project

Source folder:

Output folder:

Target Platform

This plug-in is targeted to run with:

Eclipse version:

an OSGi framework:

Debug - com.packtpub.e4.hello.ui/src/com/packtpub/e4/hello/ui/handlers/SampleHandler.java - Eclipse

Debug [main] (Suspended (breakpoint at line 27 in SampleHandler.java))

- SampleHandler.execute(ExecutionEvent) line: 27
- HandlerProxy.execute(ExecutionEvent) line: 295
- E4HandlerProxy.execute(EclipseContext, Map, Event, IEvent) line: 295
- NativeMethodAccessorImpl.invoke0(Method, Object, Object) line: 295
- NativeMethodAccessorImpl.invoke(Object, Object[]) line: 295
- DelegatingMethodAccessorImpl.invoke(Object, Object[]) line: 295
- Method.invoke(Object, Object...) line: 483
- MethodRequestor.execute() line: 55
- InjectorImpl.invokeUsingClass(Object, Class<?>, Class<A>) line: 55
- InjectorImpl.invoke(Object, Class<Annotation>, Object, P) line: 55

Name	Value
event	(id=184)
▶ applicationContext	ExpressionContext (id=213)
▶ command	Command (id=109)
▶ parameters	Collections\$EmptyMap<K,V> (id=...)
▶ trigger	Event (id=220)
▶ "new java.util.Date()"	(id=241)
+ Add new expression	

```
20 }
21
22 /**
23  * the command has been executed, so extract extract the needed informati
24  * from the application context.
25  */
26 public Object execute(ExecutionEvent event) throws ExecutionException {
27     IWorkbenchWindow window = HandlerUtil.getActiveWorkbenchWindowChecke
28     MessageDialog.openInformation(
29         window.getShell(),
30         "Hello",
31         "Hello, Eclipse world");
32     return null;
33 }
34 }
```

Outline

- com.packtpub.e4.hello.ui.ha
- SampleHandler
- SampleHandler()
- execute(ExecutionEvent)

Debug - org.eclipse.jface.dialogs.MessageDialog - Eclipse

Debug [Suspended]

- Eclipse Application [Eclipse Application]
 - org.eclipse.equinox.launcher.Main at localhost:49590
 - Thread [main] (Suspended)
 - MessageDialog.openInformation(Shell, String, String) line: 438
 - SampleHandler.execute(ExecutionEvent) line: 28
 - HandlerProxy.execute(ExecutionEvent) line: 295
 - E4HandlerProxy.execute(IEclipseContext, Map, Event, IEv
 - NativeMethodAccessorImpl.invoke0(Method, Object, Obj
 - NativeMethodAccessorImpl.invoke(Object, Object[]) line: f
 - DelegatingMethodAccessorImpl.invoke(Object, Object[]) li
 - Method.invoke(Object, Object...) line: 483
 - Method.invoke(Object, Object...) line: 483

(*)= Variables Breakpoints

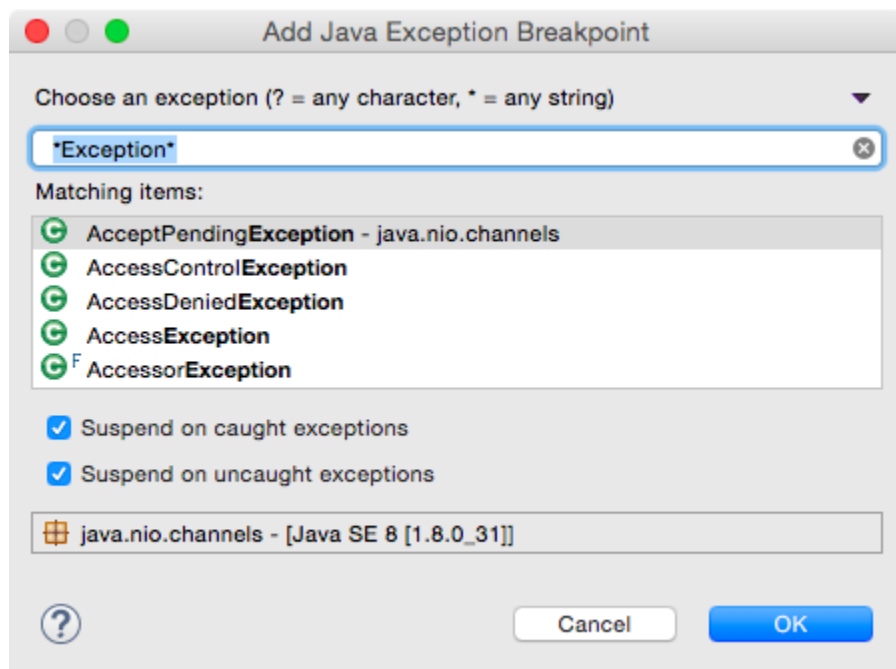
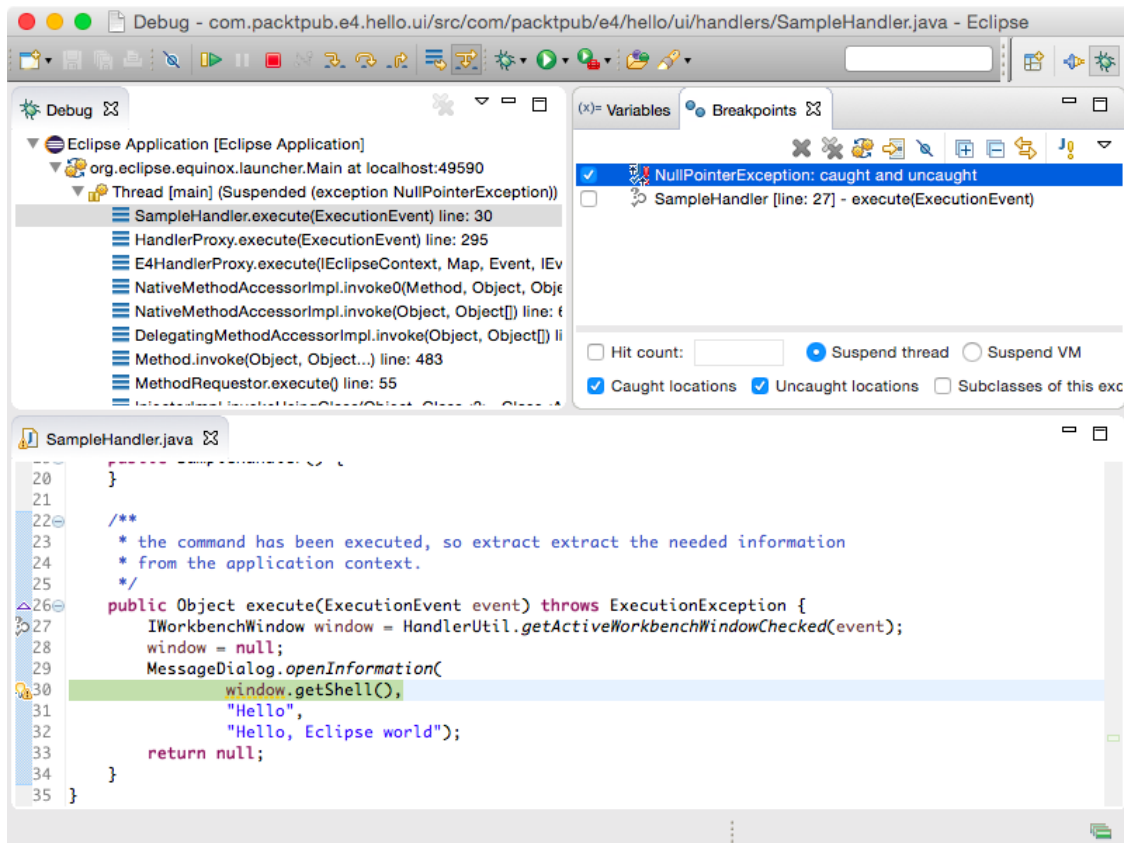
Name	Value
parent	Shell (id=155)
title	"Hello" (id=157)
message	"Hello, Eclipse world" (id=161)

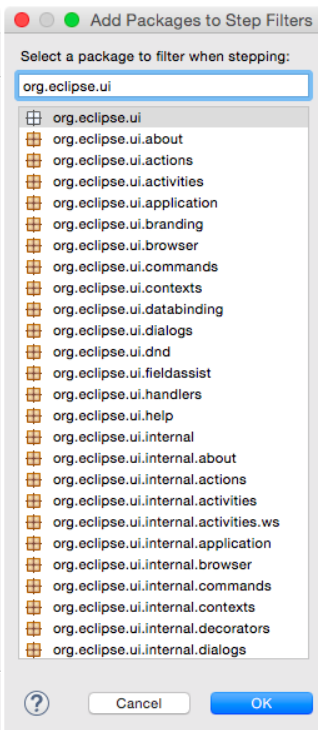
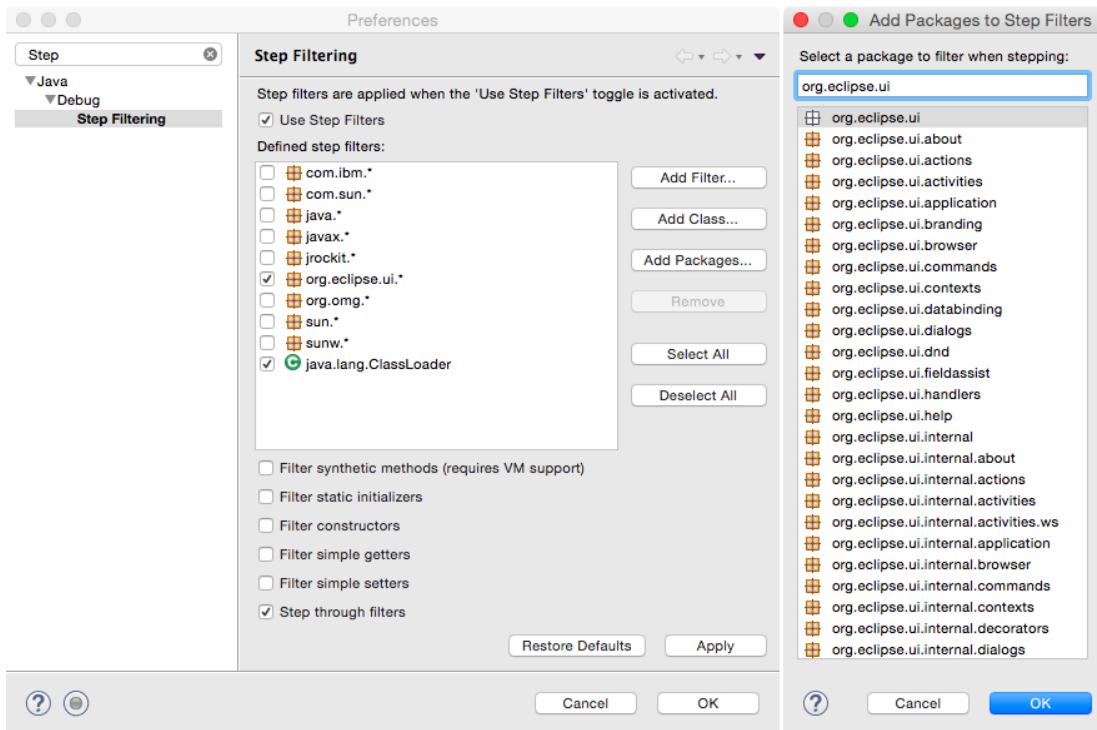
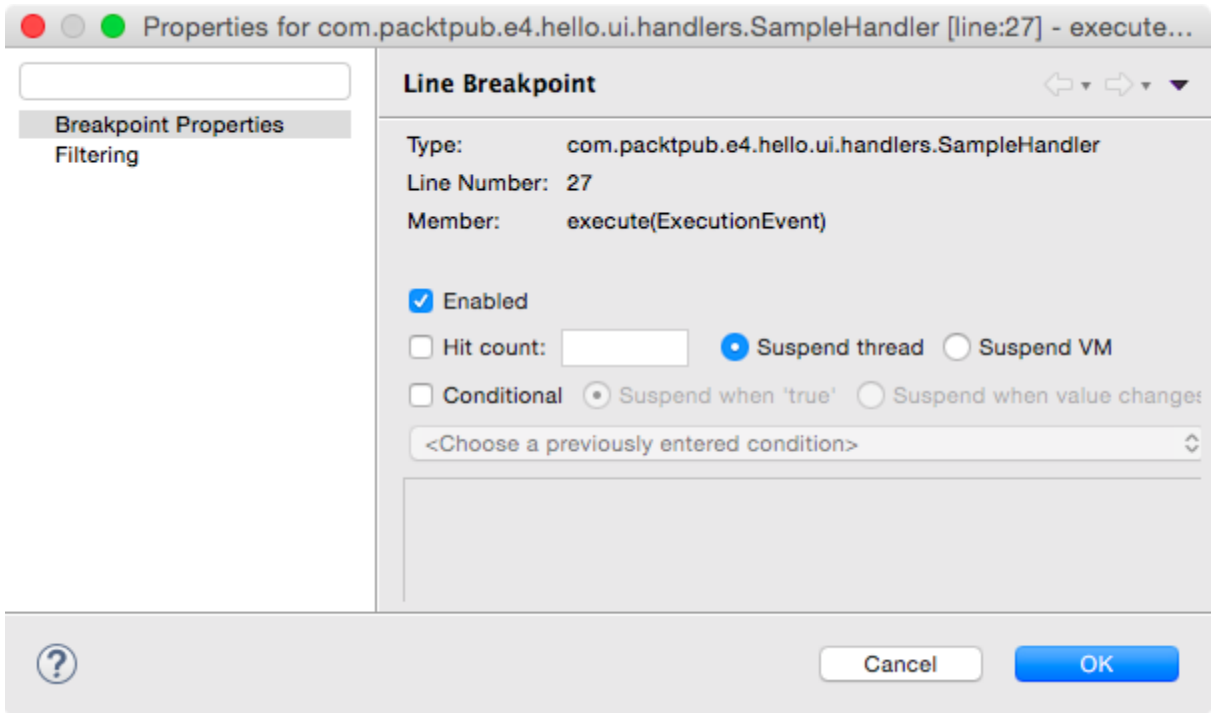
Goodbye

MessageDialog.class

```
435  */
436  public static void openInformation(Shell parent, String title,
437  String message) {
438  open(INFORMATION, parent, title, message, SWT.NONE);
439  }
440
441  /**
442   * Convenience method to open a simple Yes/No question dialog.
443   *
444   * @param parent
445   *       the parent shell of the dialog, or <code>null</code> if none
446   * @param title
447   *       the dialog's title, or <code>null</code> if none
448   * @param message
449   *       the message
450   * @return <code>true</code> if the user presses the Yes button,
```

1 : 8





Debug - com.packtpub.e4.hello.ui/src/com/packtpub/e4/hello/ui/handlers/SampleHandler.java - Eclipse

Debug [Eclipse Application]

- org.eclipse.equinox.launcher.Main at localhost:49548
 - Thread [main] (Suspended)
 - SampleHandler.execute(ExecutionEvent) line: 29
 - HandlerProxy.execute(ExecutionEvent) line: 295
 - E4HandlerProxy.execute(IExecutionContext, Map, Event, IEv...
 - NativeMethodAccessorImpl.invoke0(Method, Object, Objec...
 - NativeMethodAccessorImpl.invoke(Object, Object[]) line: 6
 - DelegatingMethodAccessorImpl.invoke(Object, Object[]) lin...
 - Method.invoke(Object, Object...) line: 483
 - MethodRequestor.execute() line: 55
 - ...

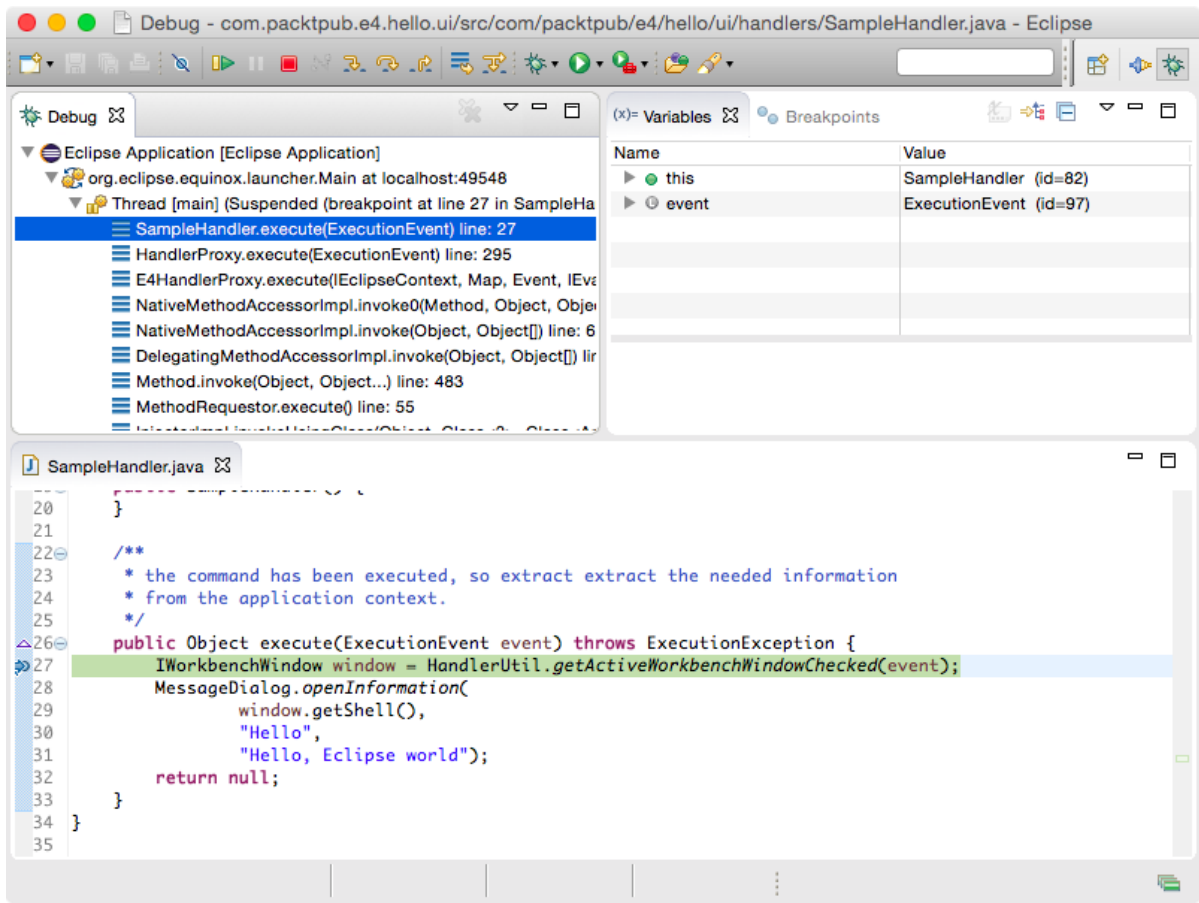
(x)= Variables Breakpoints

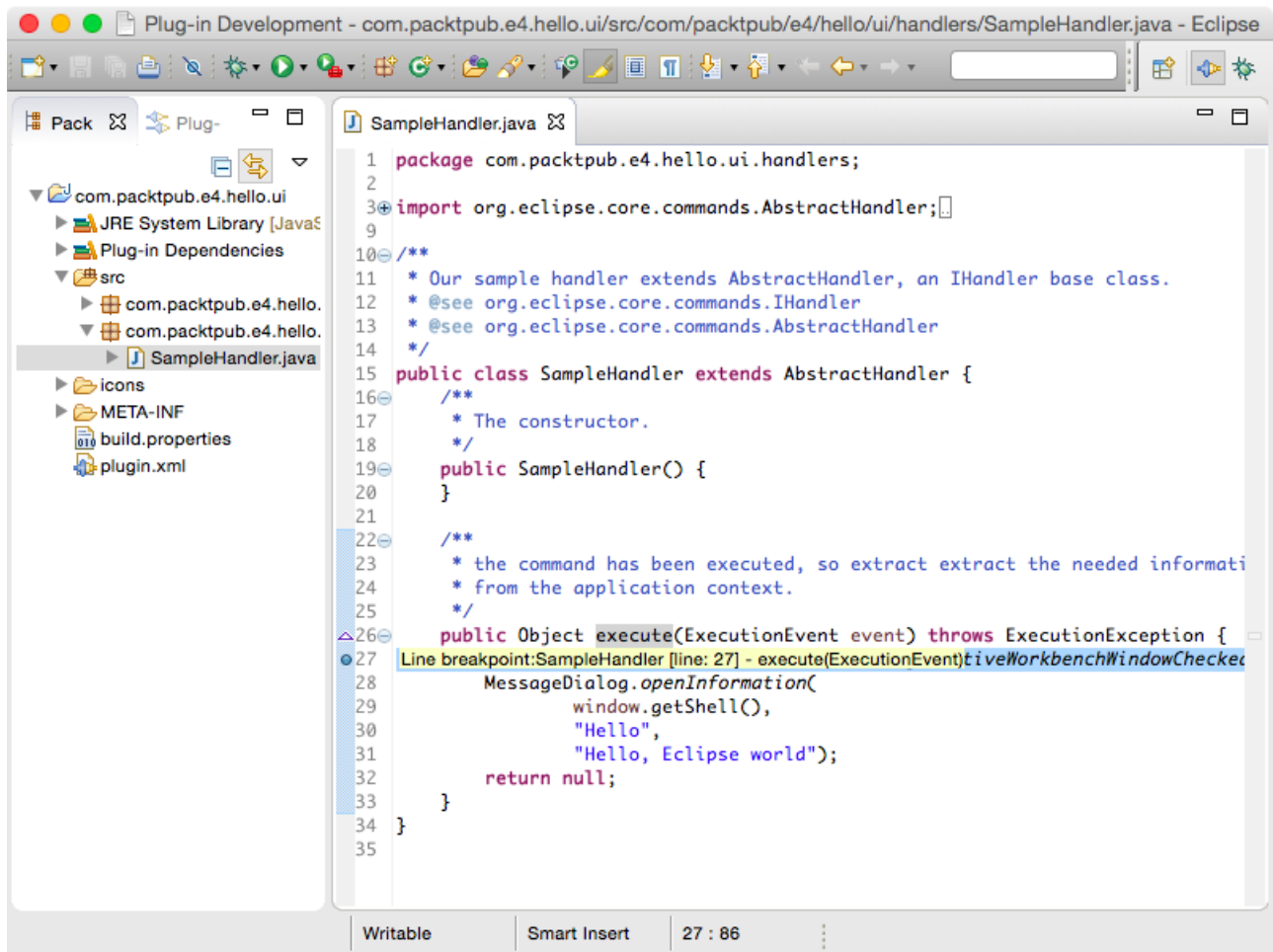
Name	Value
this	SampleHandler (id=82)
event	ExecutionEvent (id=97)
window	WorkbenchWindow (id=130)

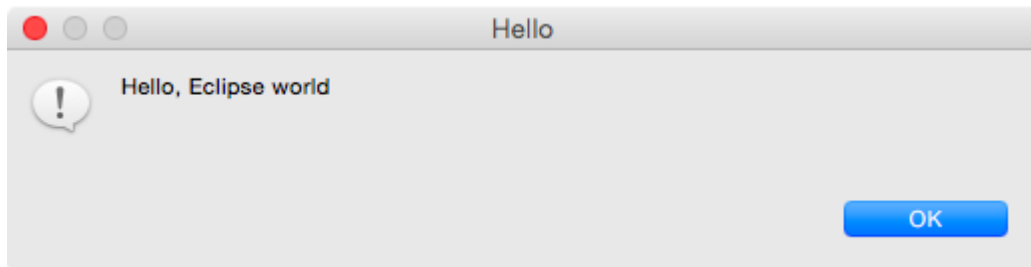
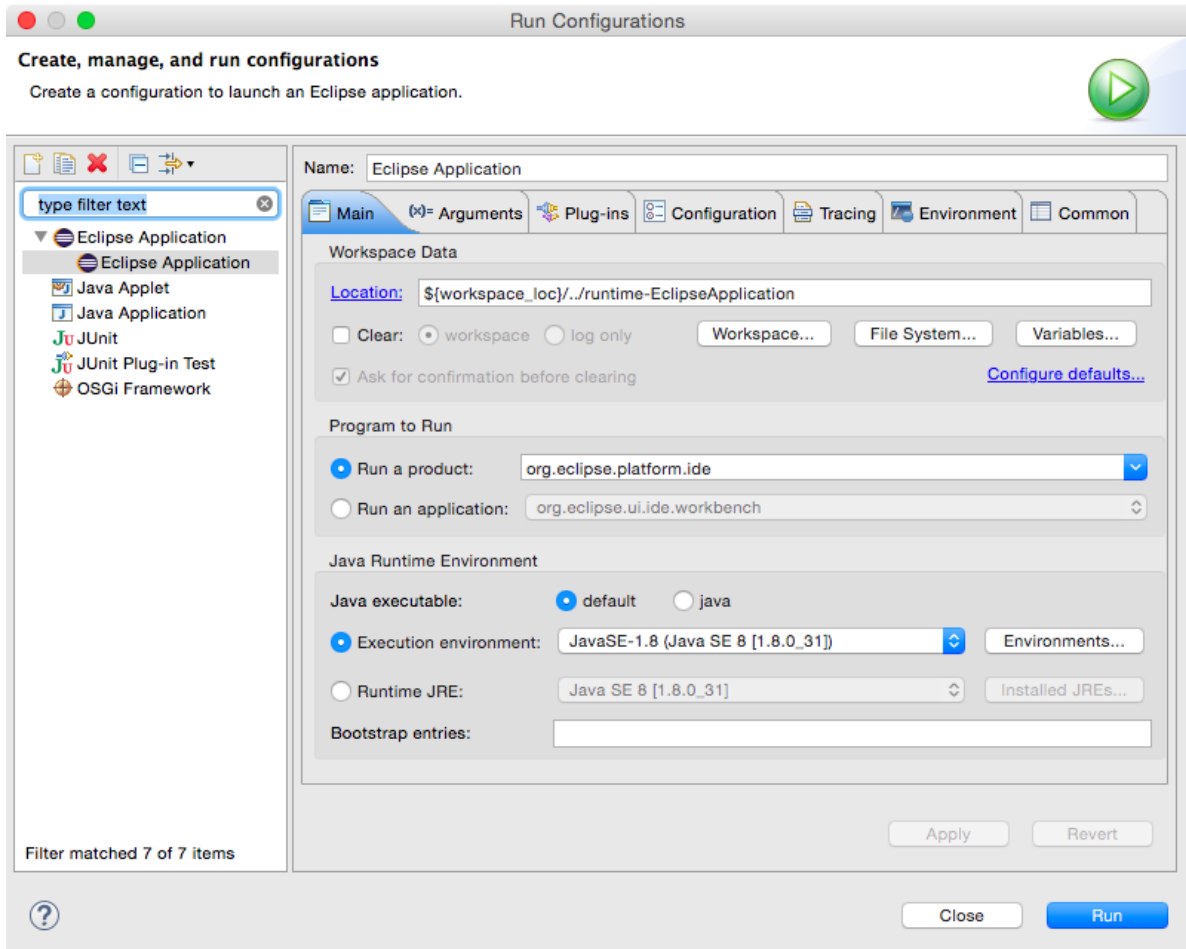
org.eclipse.ui.internal.WorkbenchWindow@356f20b7

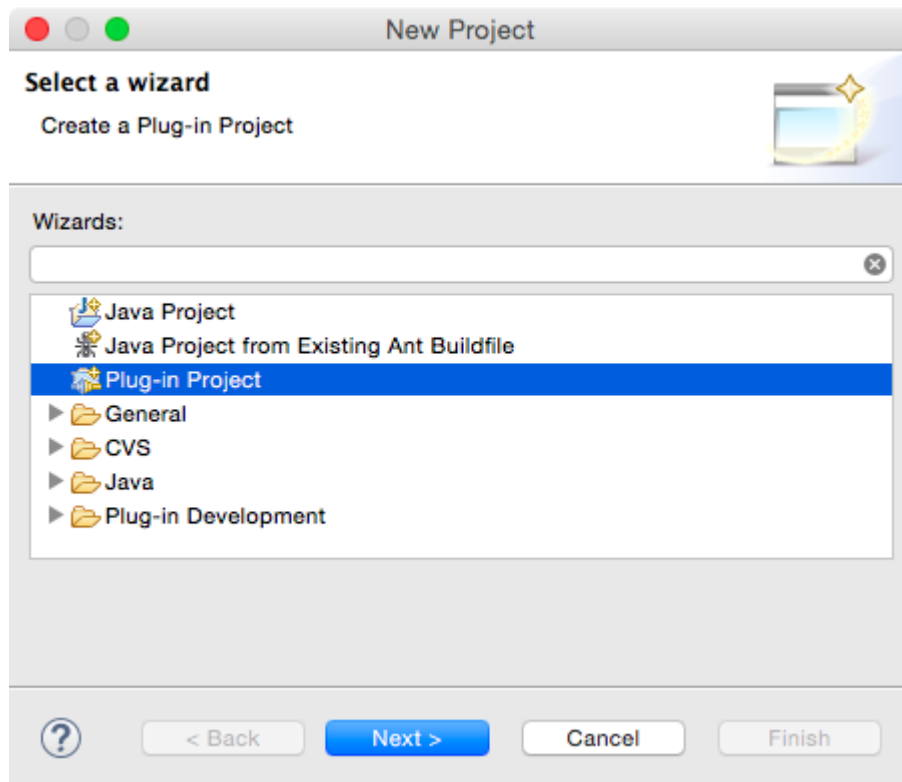
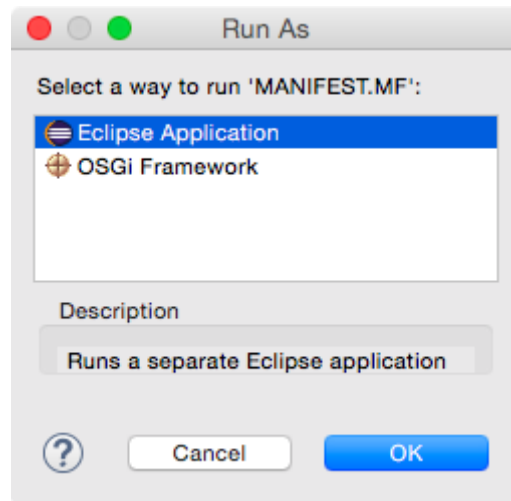
SampleHandler.java

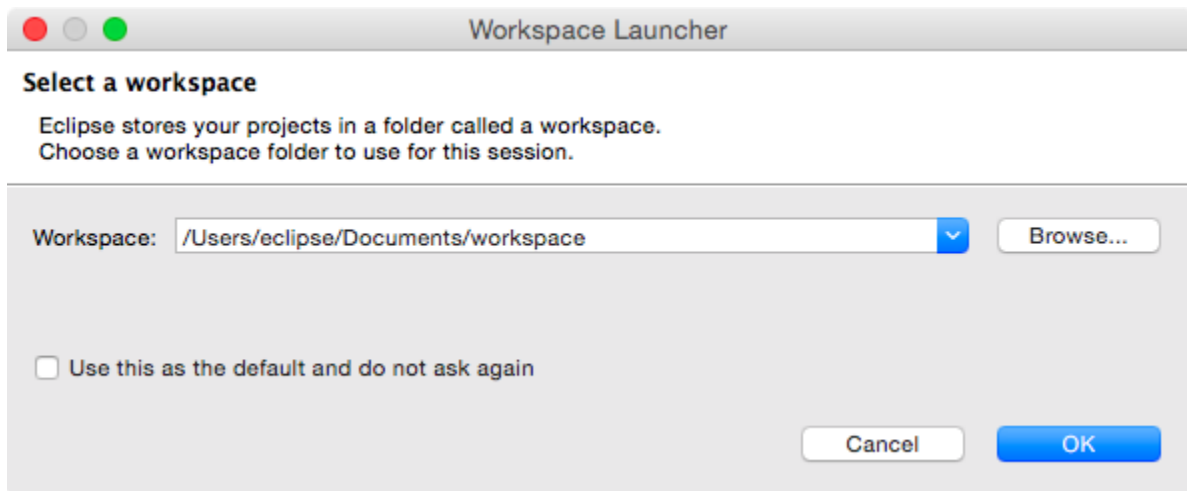
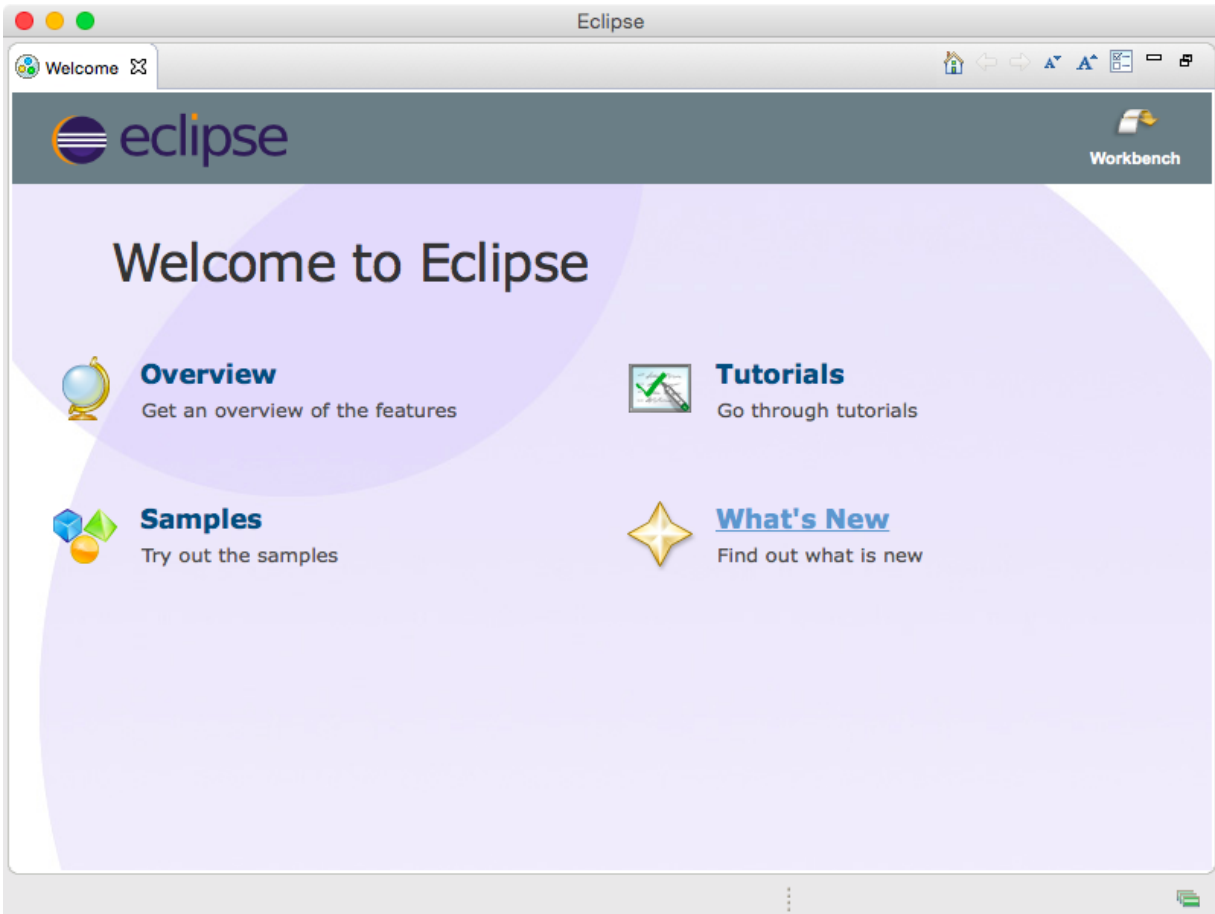
```
20     }
21
22     /**
23      * the command has been executed, so extract extract the needed information
24      * from the application context.
25      */
26     public Object execute(ExecutionEvent event) throws ExecutionException {
27         IWorkbenchWindow window = HandlerUtil.getActiveWorkbenchWindowChecked(event);
28         MessageDialog.openInformation(
29             window.getShell(),
30             "Hello",
31             "Hello, Eclipse world");
32         return null;
33     }
34 }
35
```





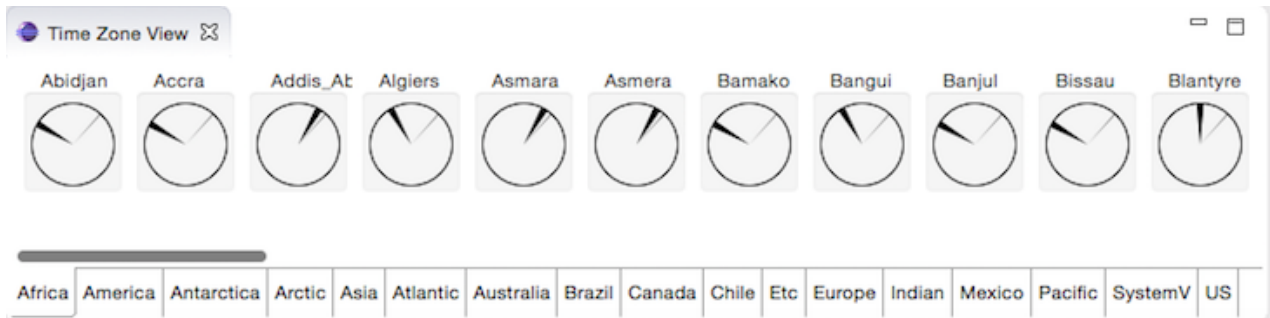
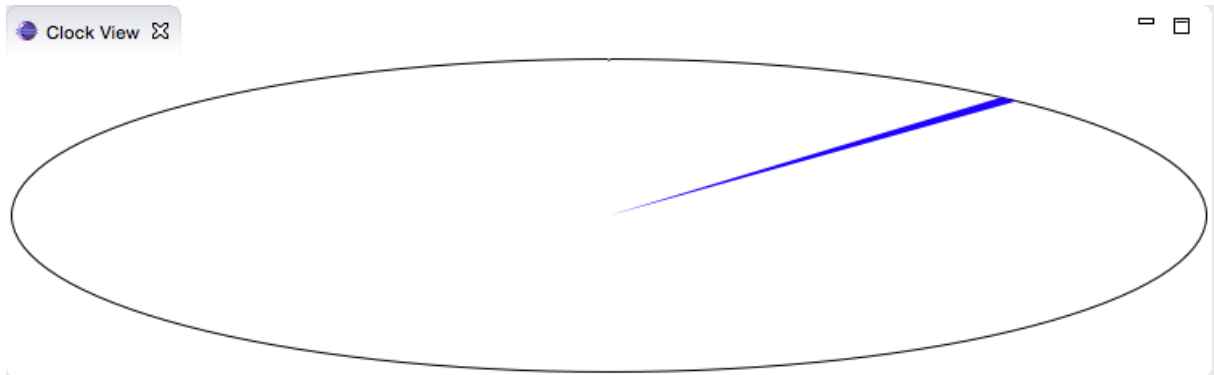




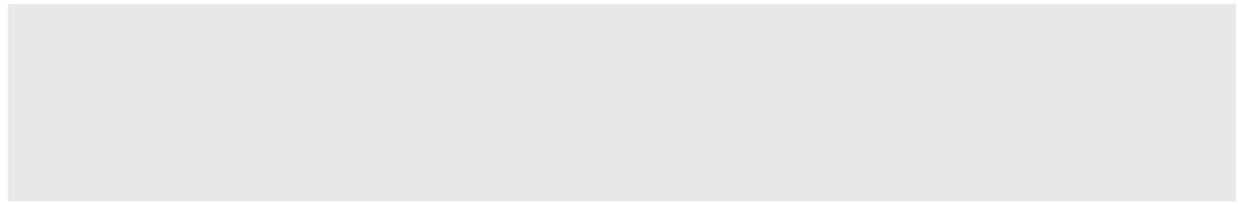




Chapter 2: Creating Views with SWT

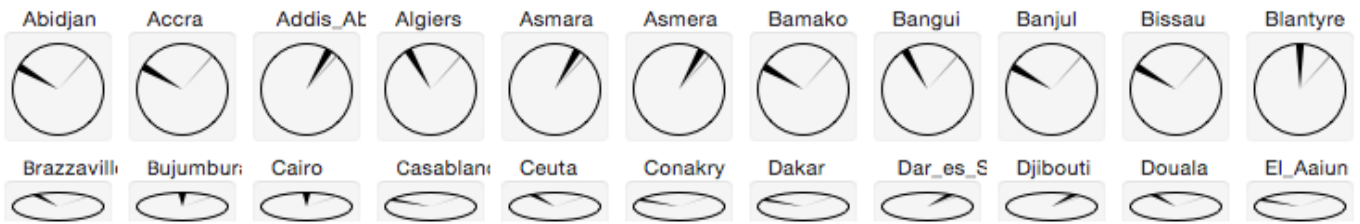


Time Zone View



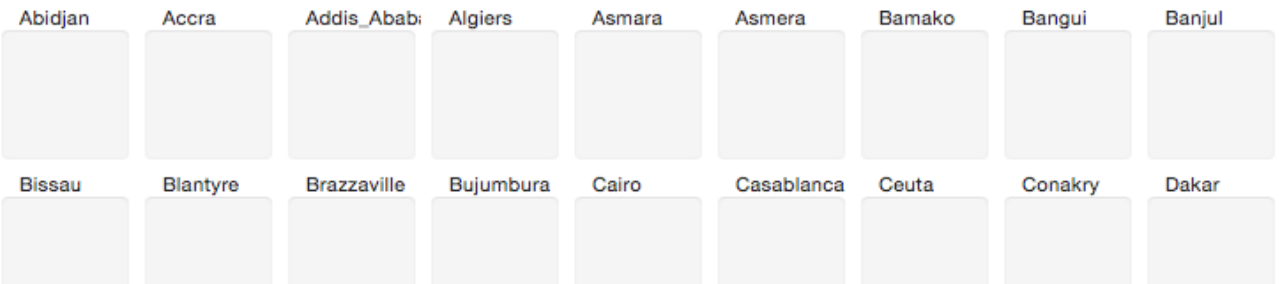
Africa America Antarctica Arctic Asia Atlantic Australia Brazil Canada Chile Etc Europe Indian Mexico Pacific SystemV US

Time Zone View



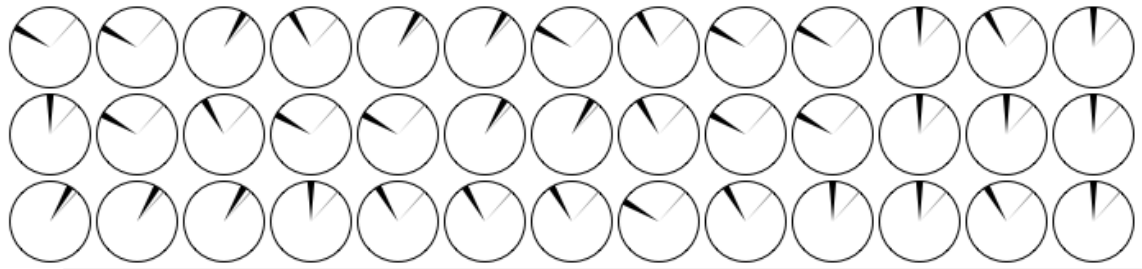
Africa America Antarctica Arctic Asia Atlantic Australia Brazil Canada Chile Etc Europe Indian Mexico Pacific SystemV US

Time Zone View



Africa America Antarctica Arctic Asia Atlantic Australia Brazil Canada Chile Etc Europe Indian Mexico Pacific SystemV US

Time Zone View

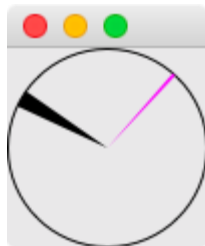


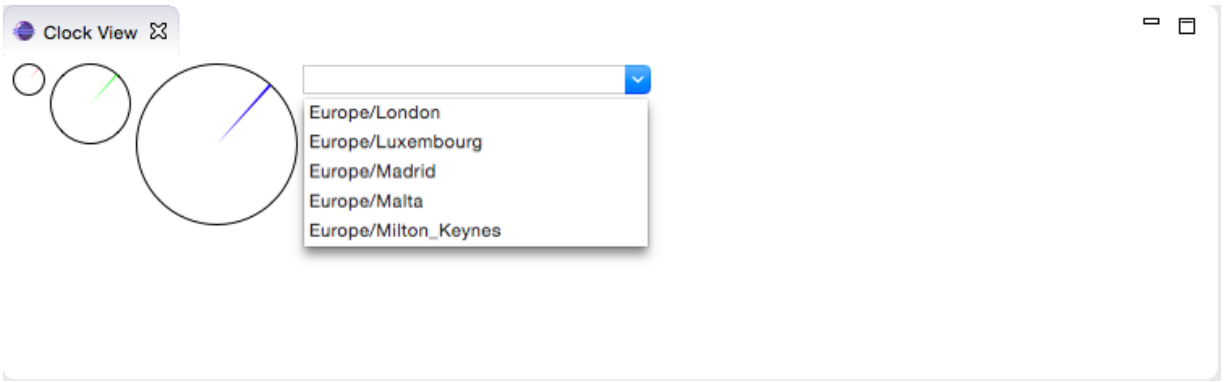
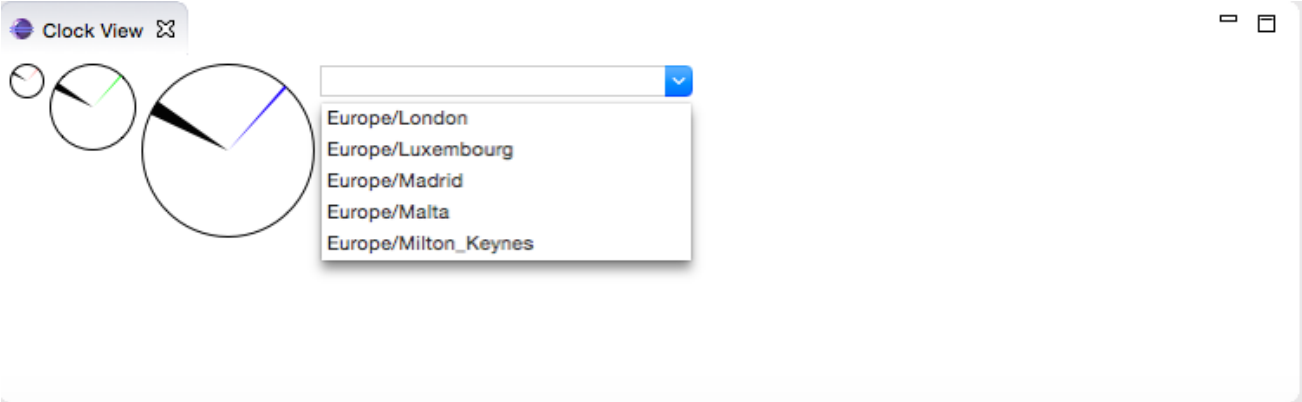
Africa America Antarctica Arctic Asia Atlantic Australia Brazil Canada Chile Etc Europe Indian Mexico Pacific SystemV US

Time Zone View



Africa America Antarctica Arctic Asia Atlantic Australia Brazil Canada Chile Etc Europe Indian Mexico Pacific SystemV US






Debug Configurations

Create, manage, and run configurations

Create a configuration to launch an Eclipse application in debug mode.



Name: Eclipse Application

Main Arguments Plug-ins Configuration **Tracing** Environment Common

Enable tracing

<ul style="list-style-type: none"> <input type="checkbox"/> org.eclipse.osgi (3.10.100.v20150129-2253) <input type="checkbox"/> org.eclipse.pde.api.tools (1.0.700.v20150114-1000) <input type="checkbox"/> org.eclipse.pde.build (3.9.100.v20140729-1920) <input type="checkbox"/> org.eclipse.pde.core (3.10.100.v20150122-1111) <input type="checkbox"/> org.eclipse.search (3.10.0.v20150129-2029) <input type="checkbox"/> org.eclipse.team.core (3.7.100.v20141117-1111) <input type="checkbox"/> org.eclipse.team.cvs.core (3.3.700.v20141117-1111) <input type="checkbox"/> org.eclipse.team.cvs.ssh2 (3.2.500.v20141116-1111) <input type="checkbox"/> org.eclipse.team.cvs.ui (3.3.700.v20141118-1111) <input type="checkbox"/> org.eclipse.team.ui (3.7.200.v20141118-1725) <li style="background-color: #e0e0e0;"><input checked="" type="checkbox"/> org.eclipse.ui (3.107.0.v20150107-0903) <input type="checkbox"/> org.eclipse.ui.browser (3.4.200.v20131003-1400) <input type="checkbox"/> org.eclipse.ui.ide (3.10.100.v20150126-1117) <input type="checkbox"/> org.eclipse.ui.intro (3.4.300.v20141007-1449) <input type="checkbox"/> org.eclipse.ui.intro.universal (3.2.800.v20140808-1111) <input type="checkbox"/> org.eclipse.ui.navigator (3.5.500.v20150126-1111) <input type="checkbox"/> org.eclipse.ui.workbench (3.107.0.v20150127-0903) <p>Select All Deselect All</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> debug <input type="checkbox"/> debug/contributions <input type="checkbox"/> debug/declaredImages ... <input checked="" type="checkbox"/> trace/graphics <input type="checkbox"/> trace/handlers <input type="checkbox"/> trace/handlers.performance <input type="checkbox"/> trace/handlers.verbose trace/handlers.verbose.commandid <input type="text"/> <input type="checkbox"/> trace/keyBindings <input type="checkbox"/> trace/keyBindings.verbose <input type="checkbox"/> trace/multipageeditor <input type="checkbox"/> trace/operations
---	--

Apply Revert

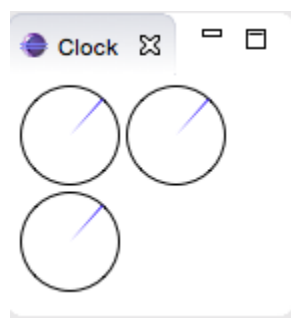
Close **Debug**

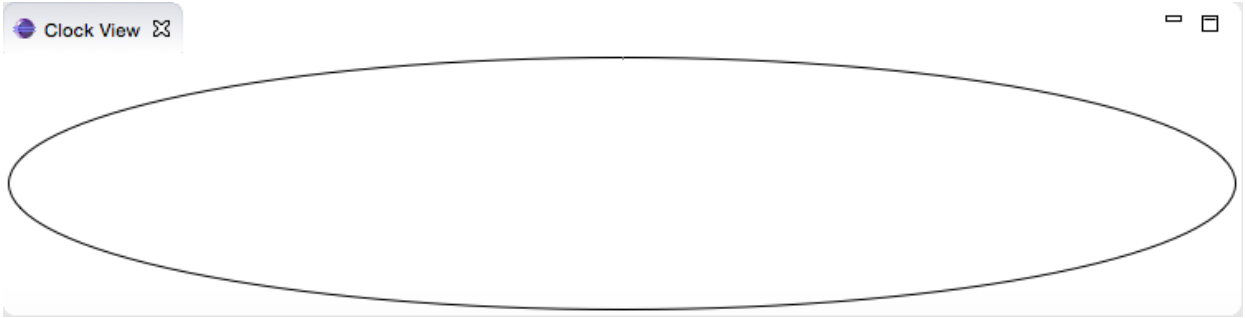
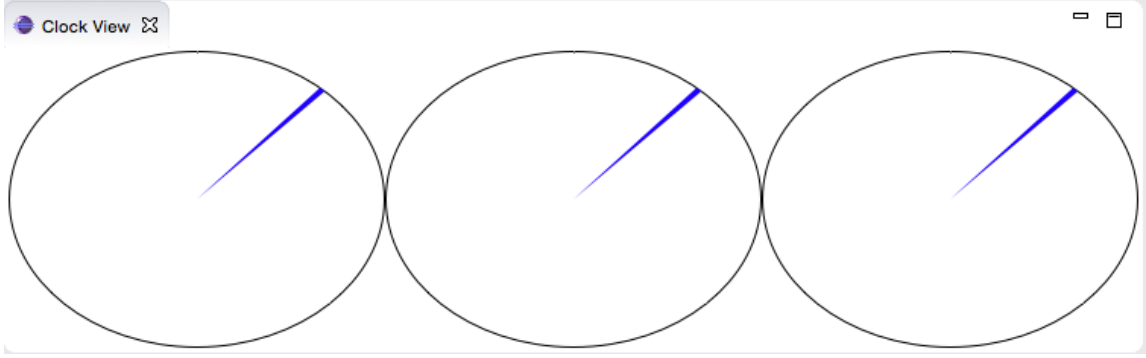
Filter matched 8 of 8 items

Clock View 

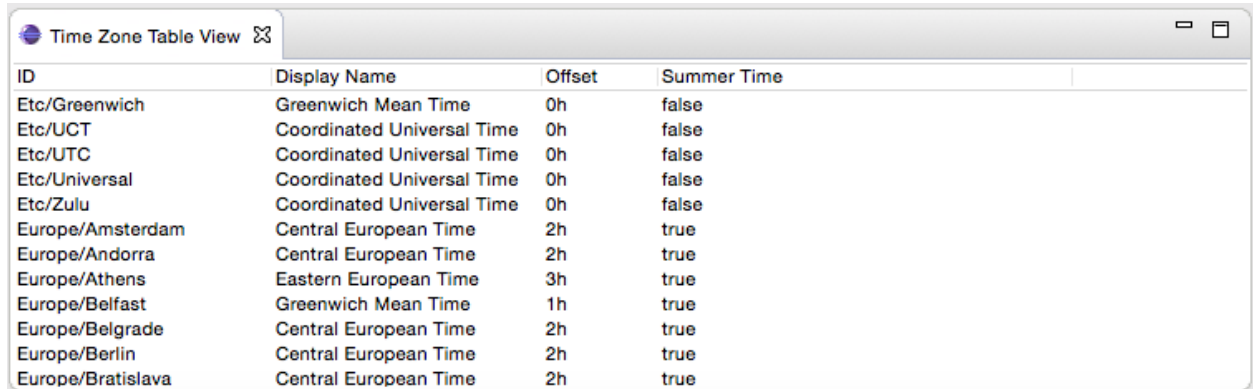


= □





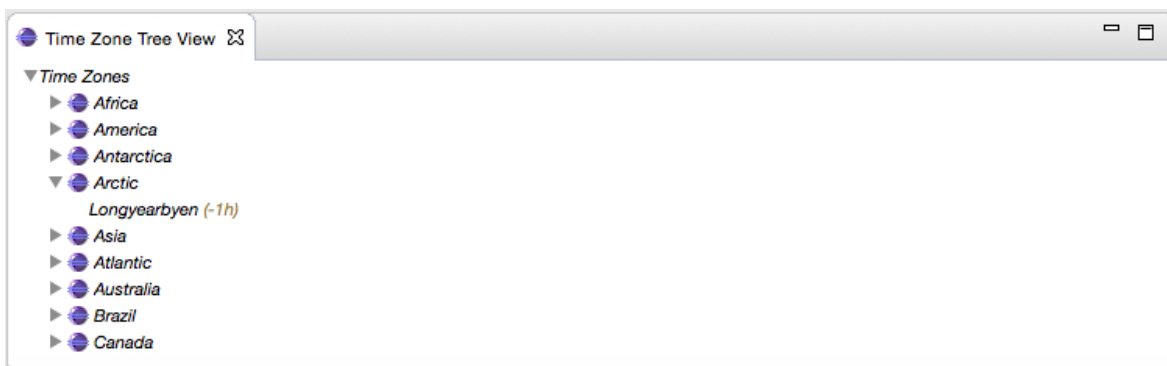
Chapter 3: Creating JFace Viewers



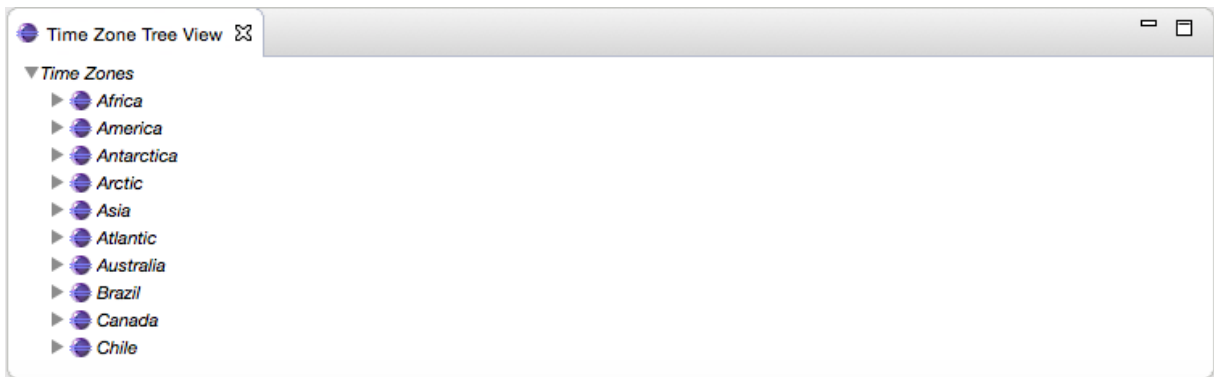
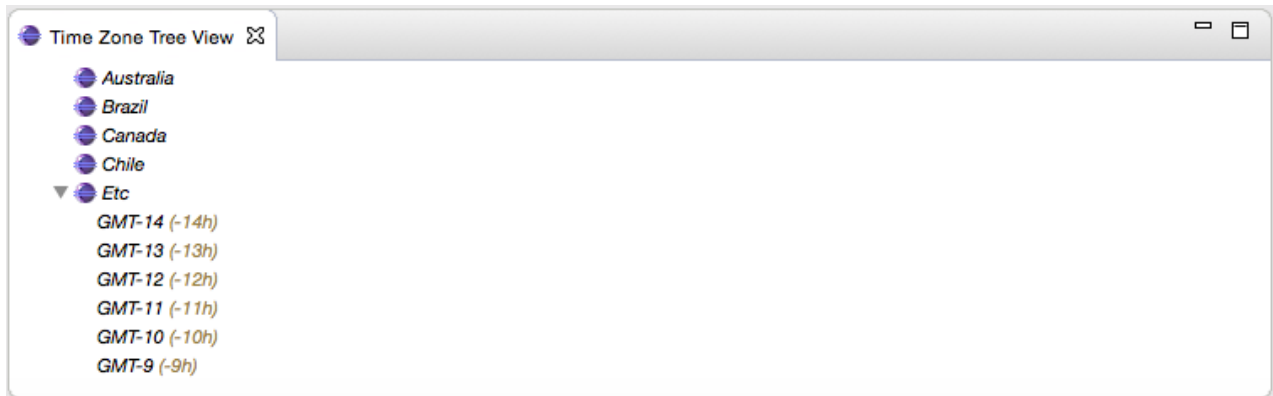
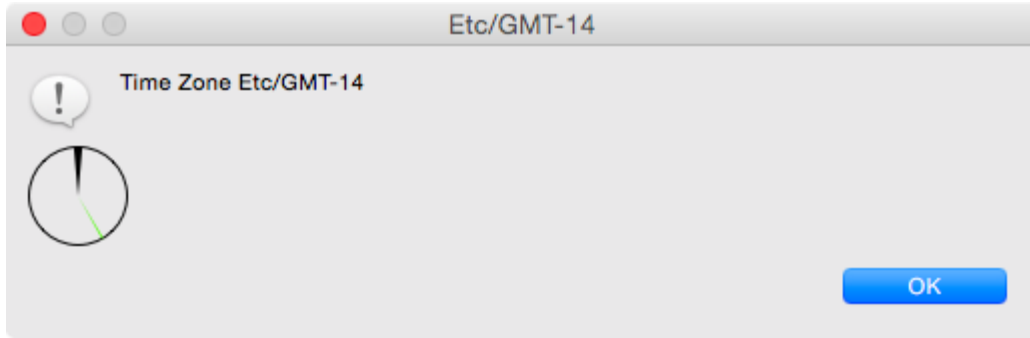
ID	Display Name	Offset	Summer Time
Etc/Greenwich	Greenwich Mean Time	0h	false
Etc/UCT	Coordinated Universal Time	0h	false
Etc/UTC	Coordinated Universal Time	0h	false
Etc/Universal	Coordinated Universal Time	0h	false
Etc/Zulu	Coordinated Universal Time	0h	false
Europe/Amsterdam	Central European Time	2h	true
Europe/Andorra	Central European Time	2h	true
Europe/Athens	Eastern European Time	3h	true
Europe/Belfast	Greenwich Mean Time	1h	true
Europe/Belgrade	Central European Time	2h	true
Europe/Berlin	Central European Time	2h	true
Europe/Bratislava	Central European Time	2h	true

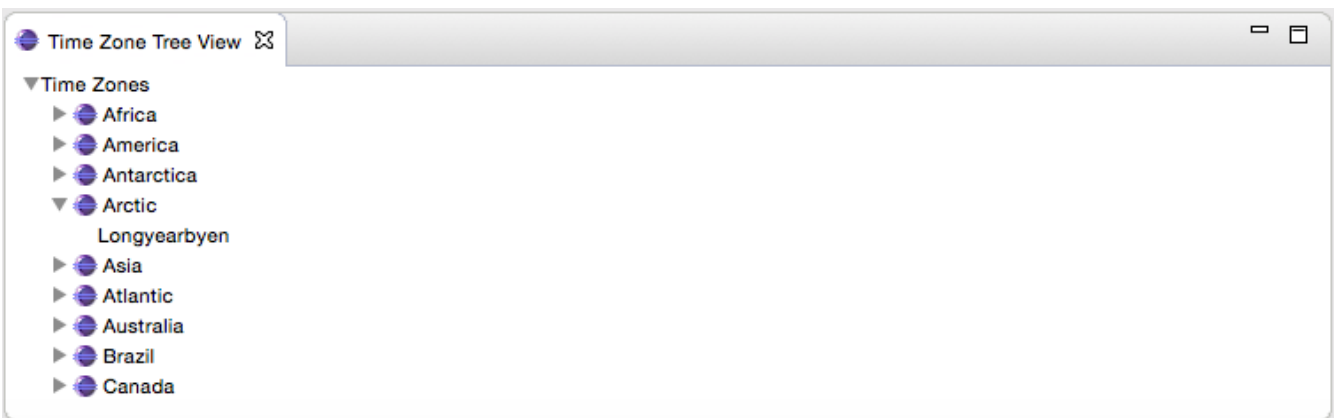
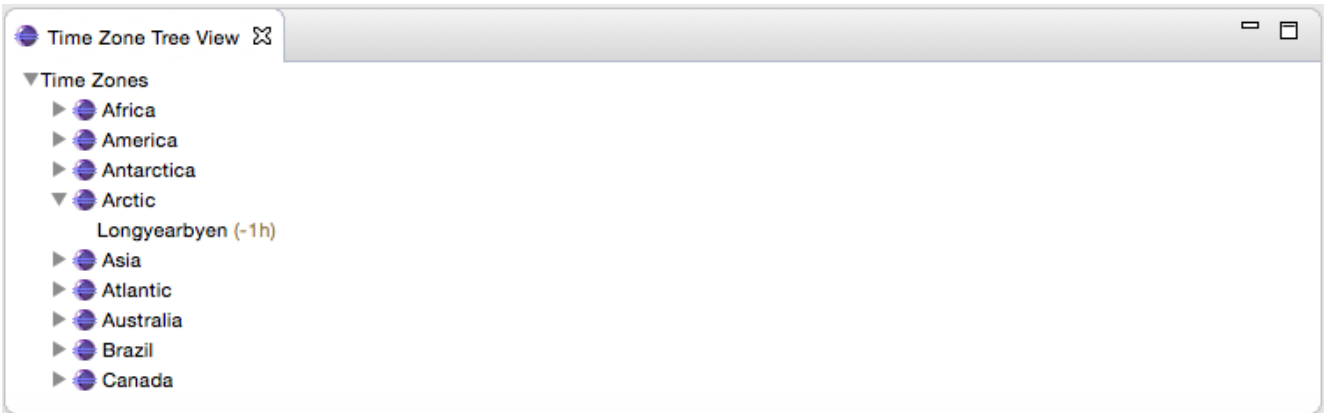


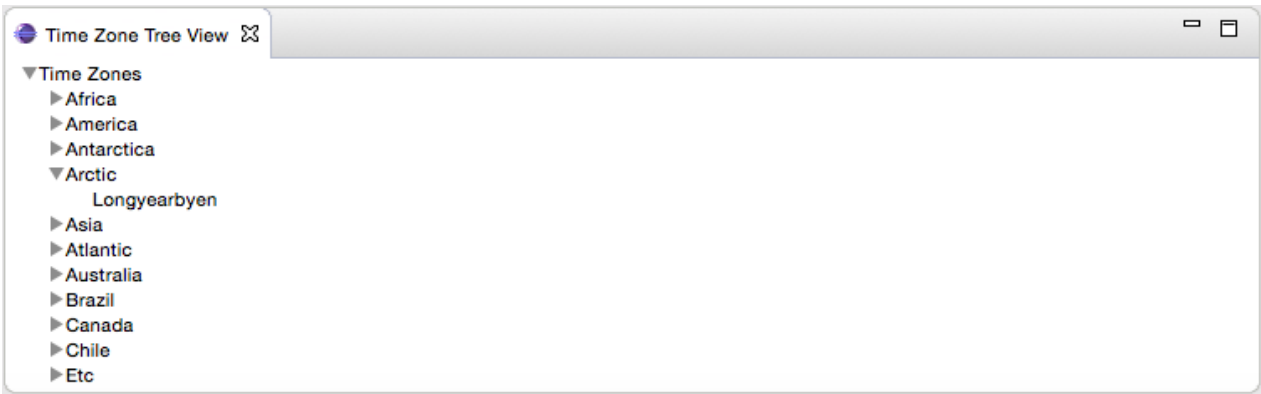
Etc/Greenwich
Etc/UCT
Etc/UTC
Etc/Universal
Etc/Zulu
Europe/Amsterdam
Europe/Andorra
Europe/Athens
Europe/Belfast
Europe/Belgrade
Europe/Berlin
Europe/Bratislava



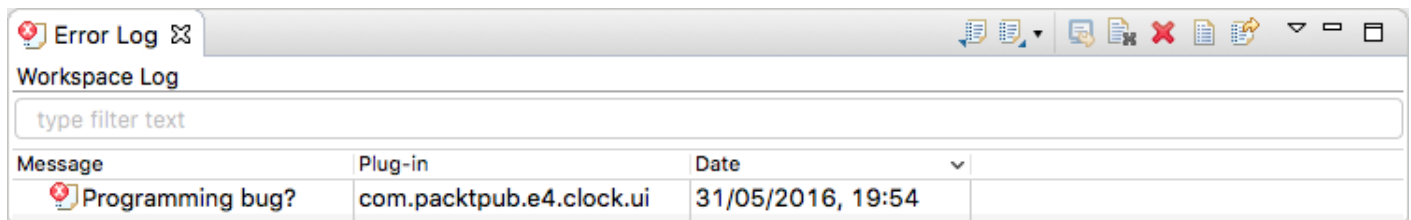
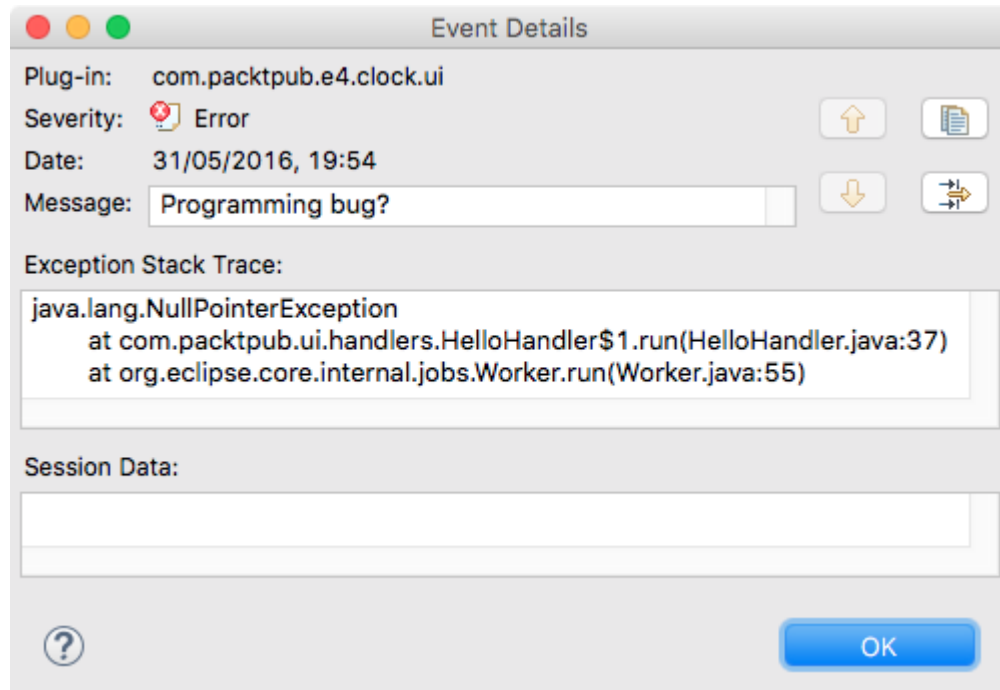
- Time Zones
 - Africa
 - America
 - Antarctica
 - Arctic
 - Longyearbyen (-1h)
 - Asia
 - Atlantic
 - Australia
 - Brazil
 - Canada

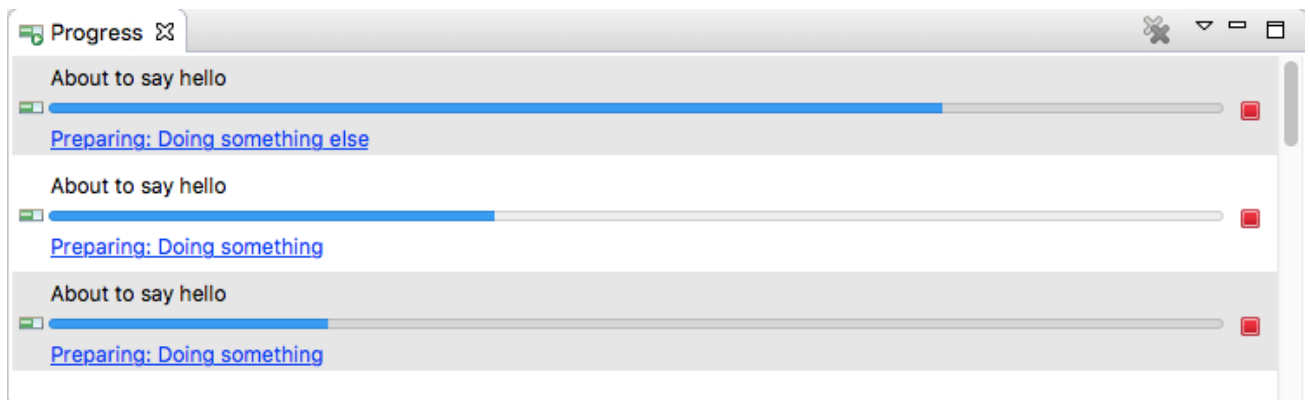
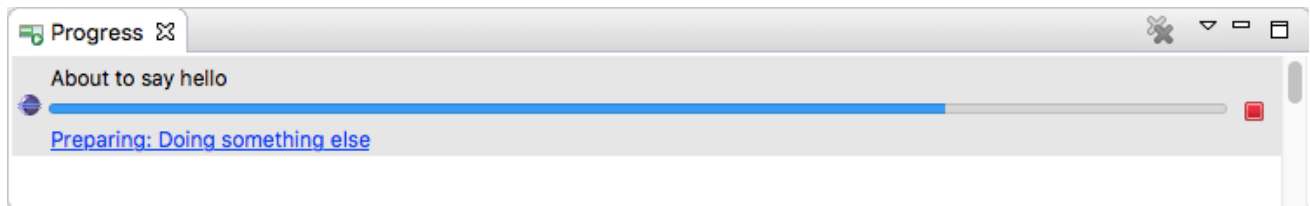
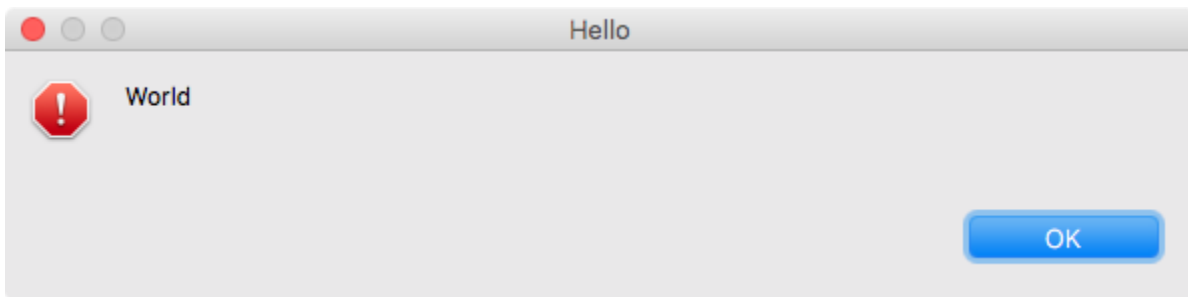
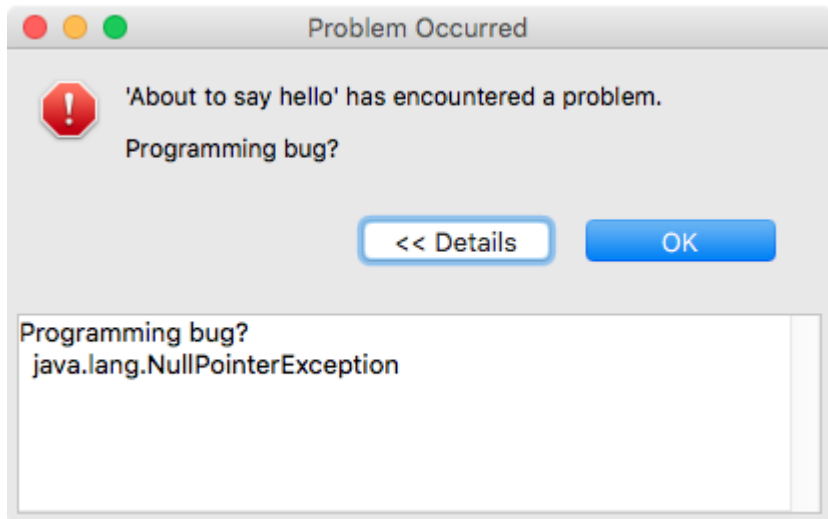


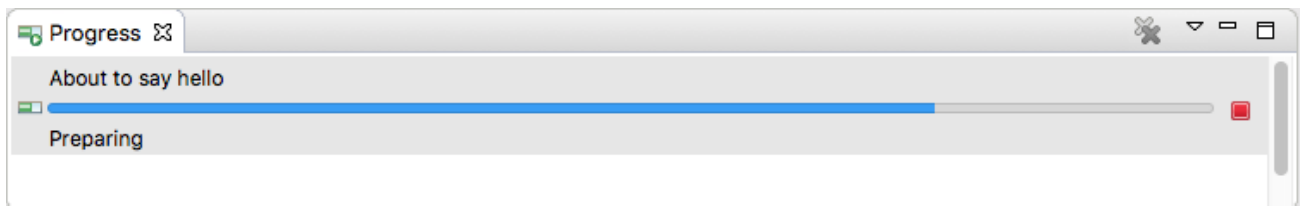
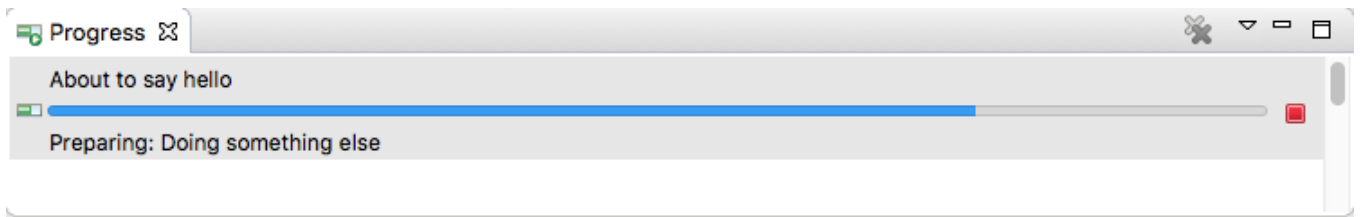
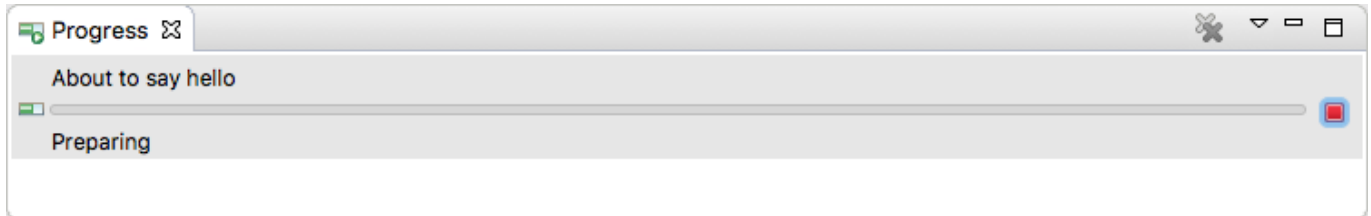
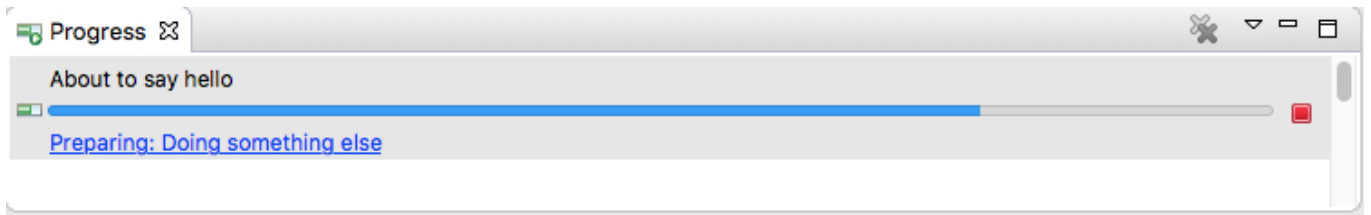


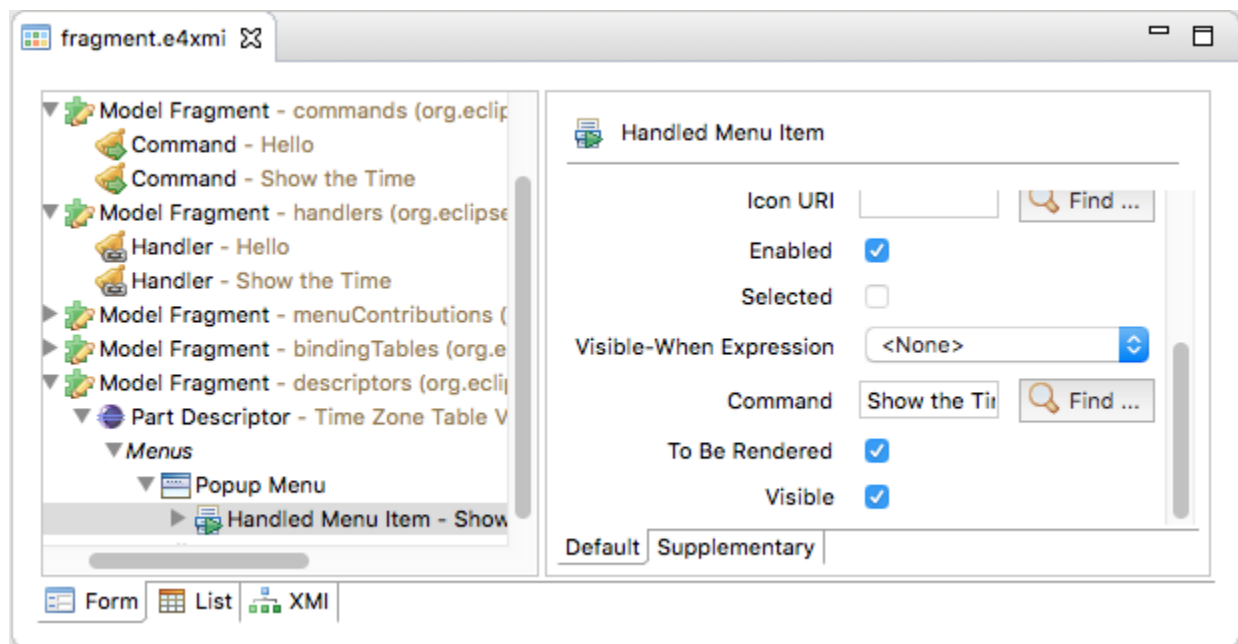
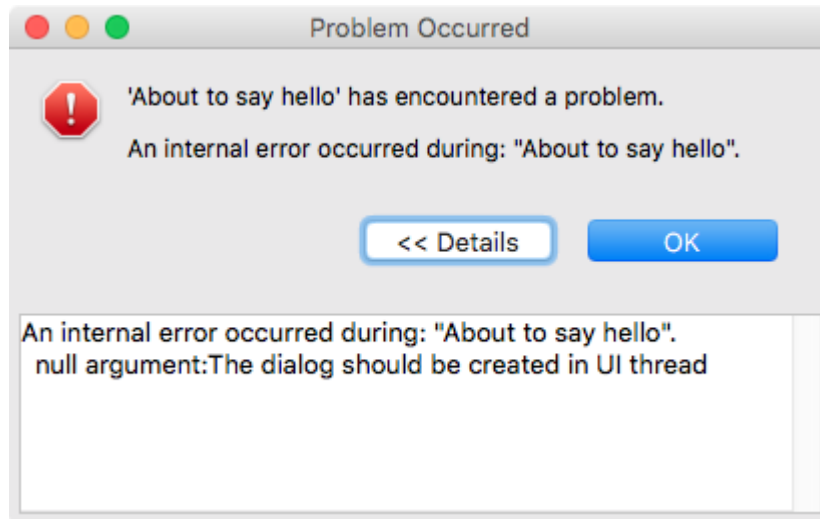


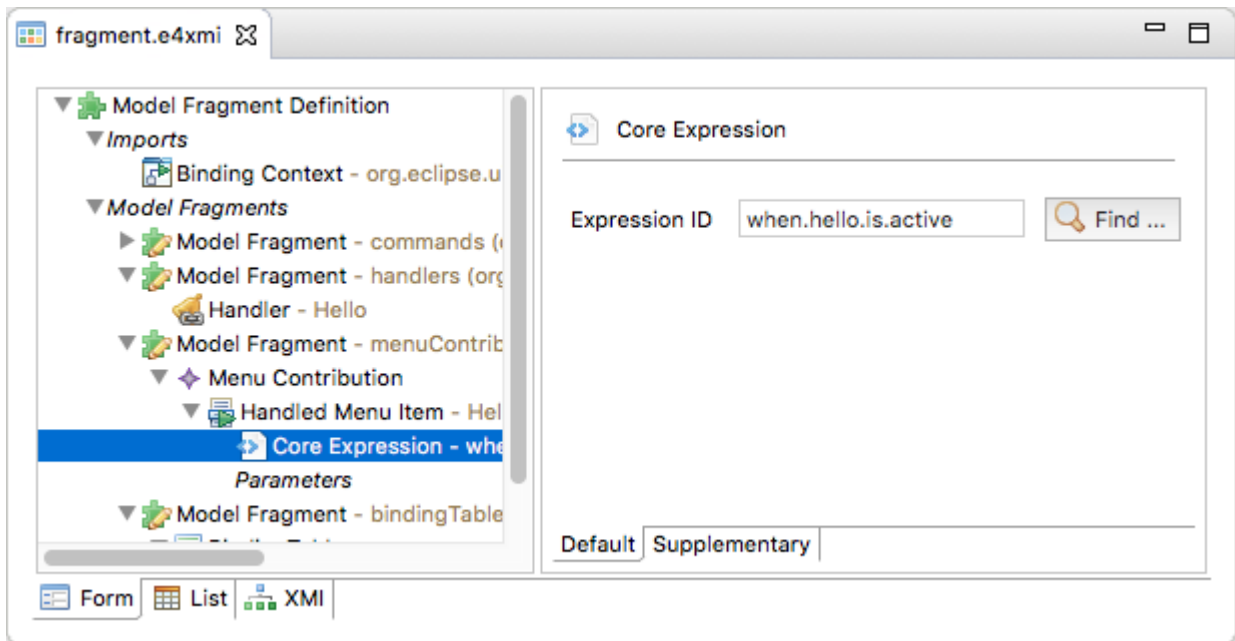
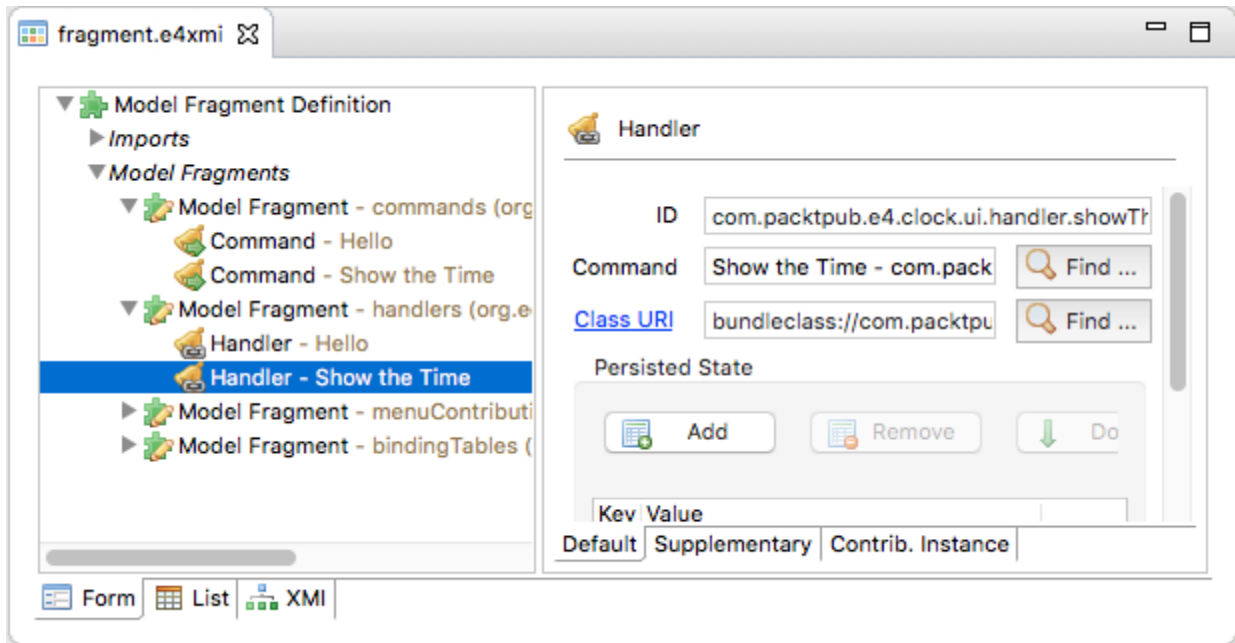
Chapter 4: Interacting with the User

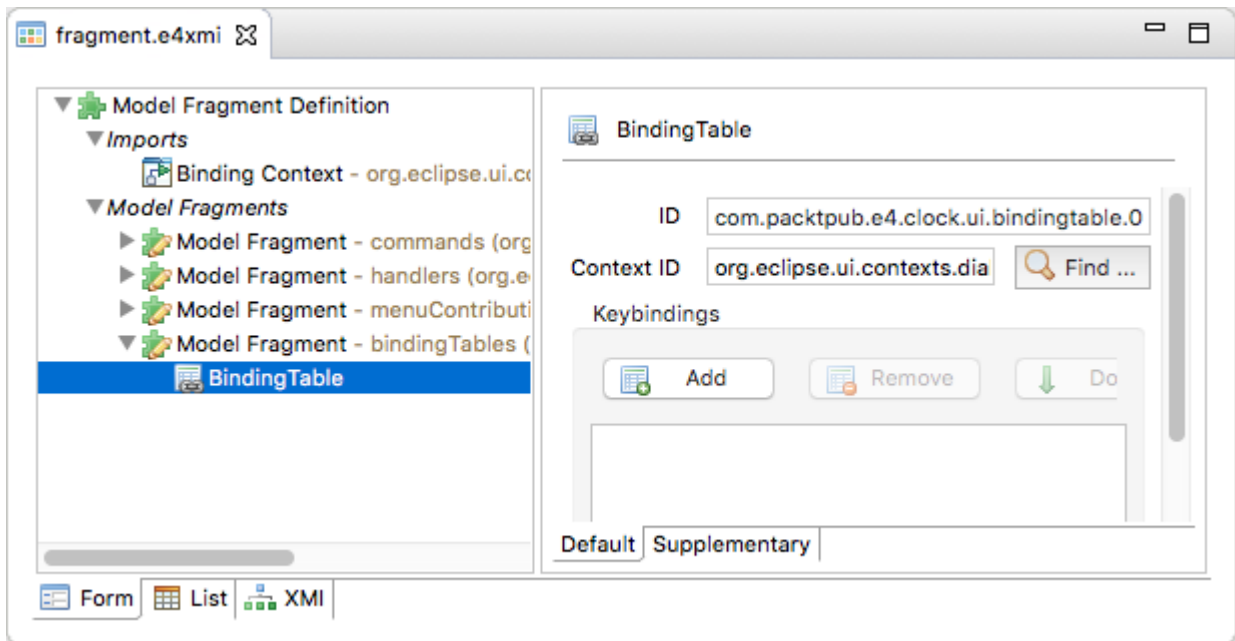
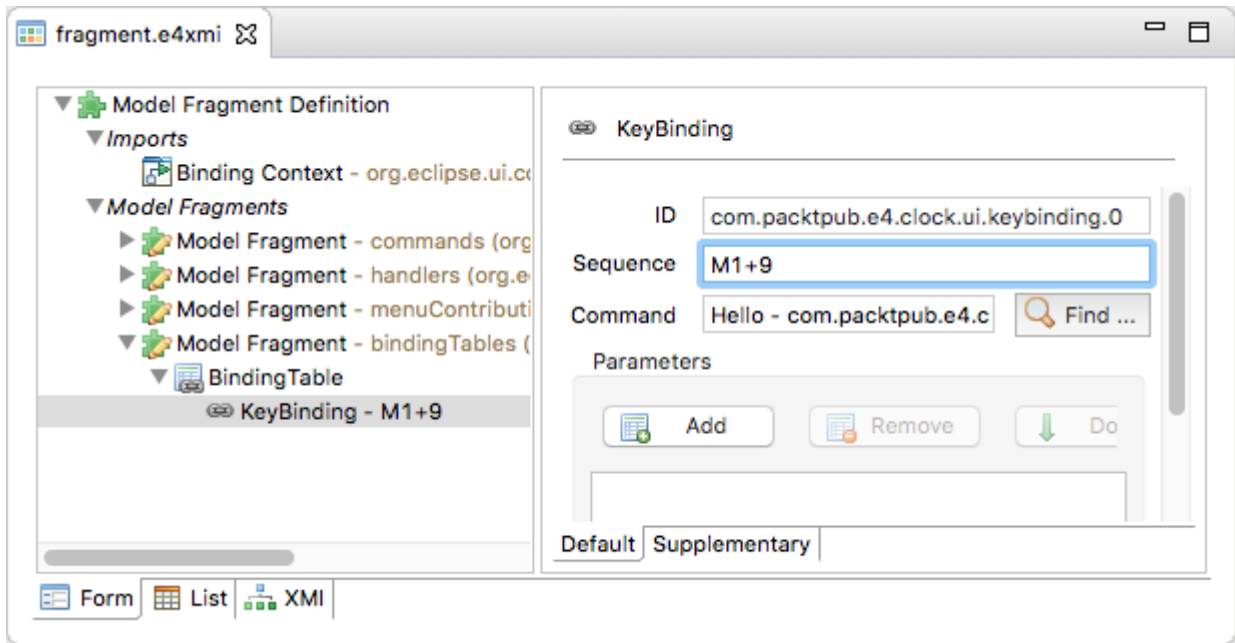


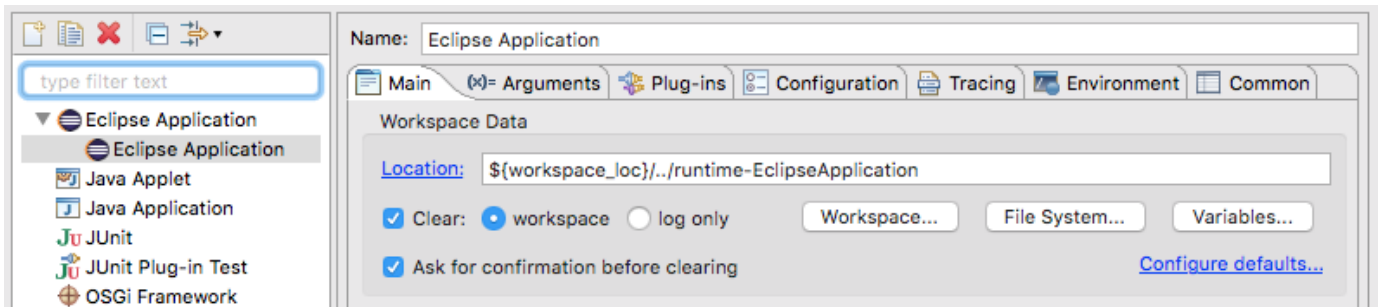
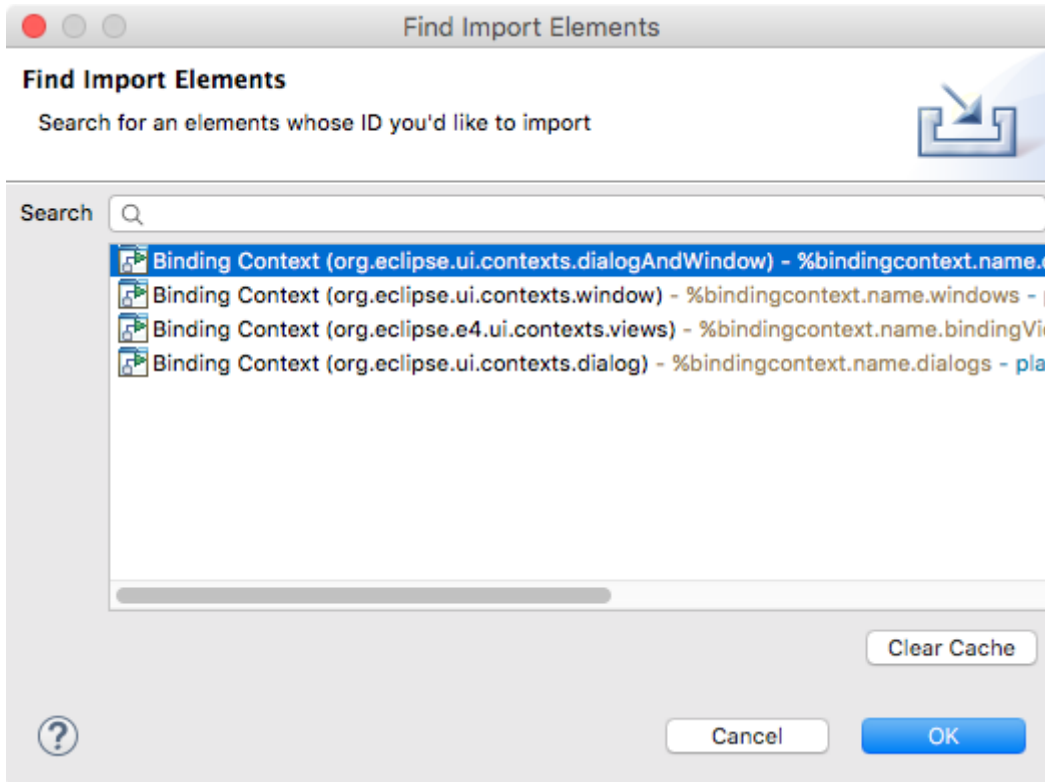


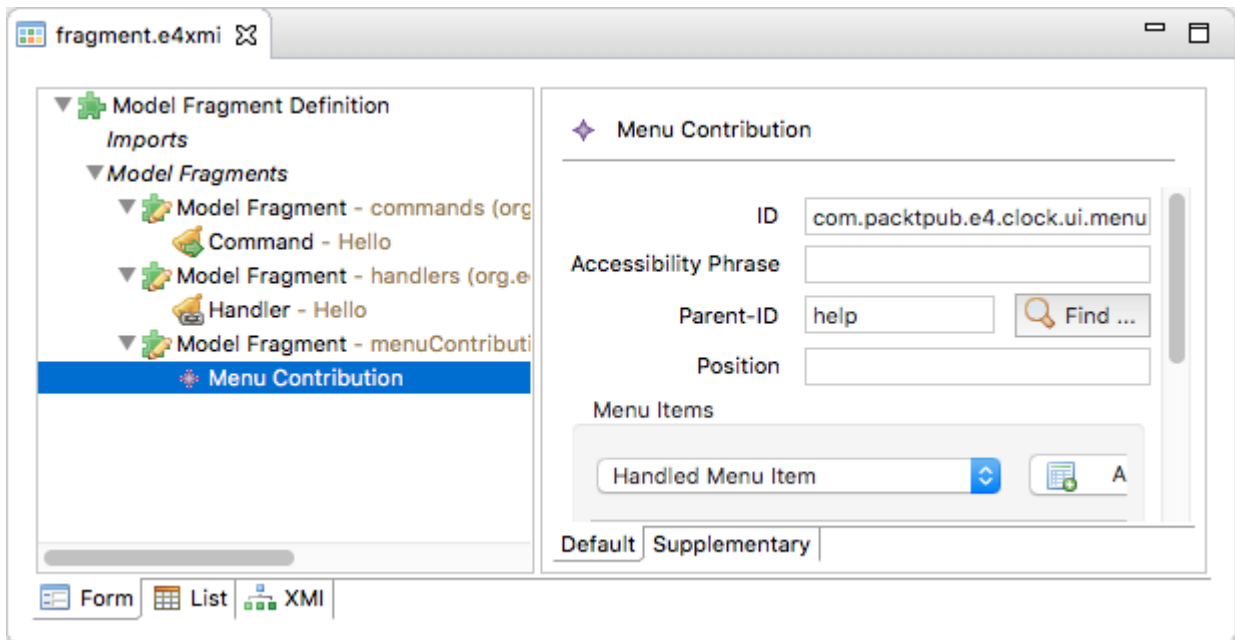
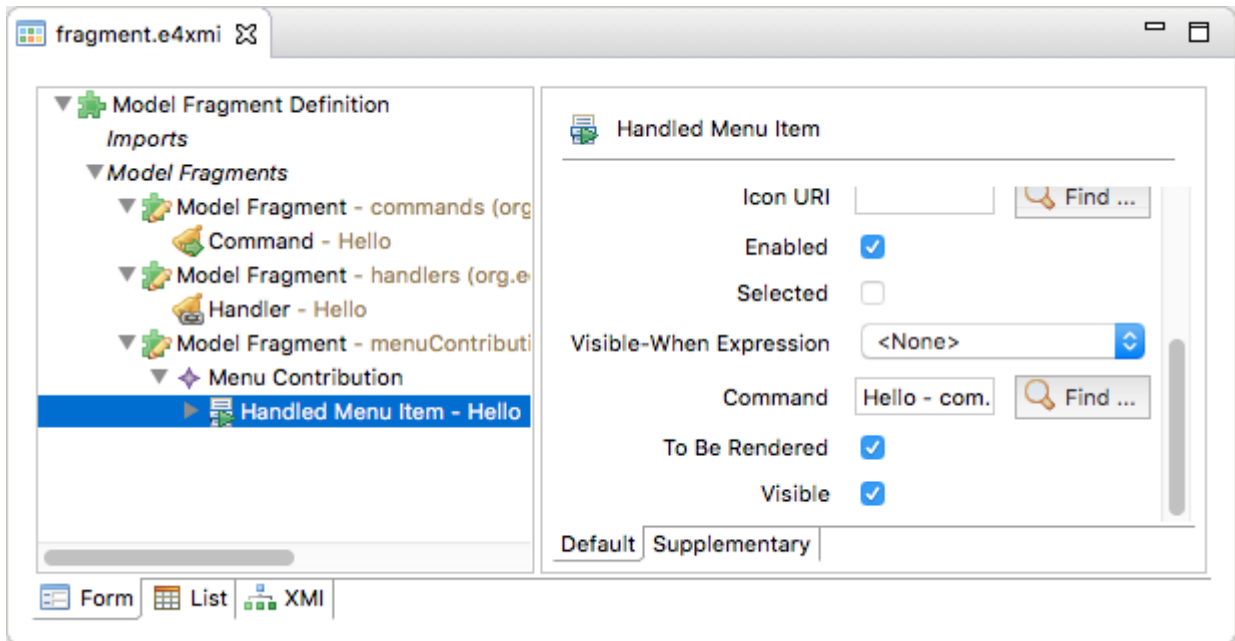













New contribution class

New Handler

Create a new handler class 

Source folder

Package

Name

Execute Method

Can-Execute Method

fragment.e4xmi

- Model Fragment Definition
 - Imports
 - Model Fragments
 - Model Fragment - commands (org.e4.core.commands)
 - Command - Hello
 - Model Fragment - handlers (org.e4.core.commands)
 - Handler - Hello**

Handler

ID

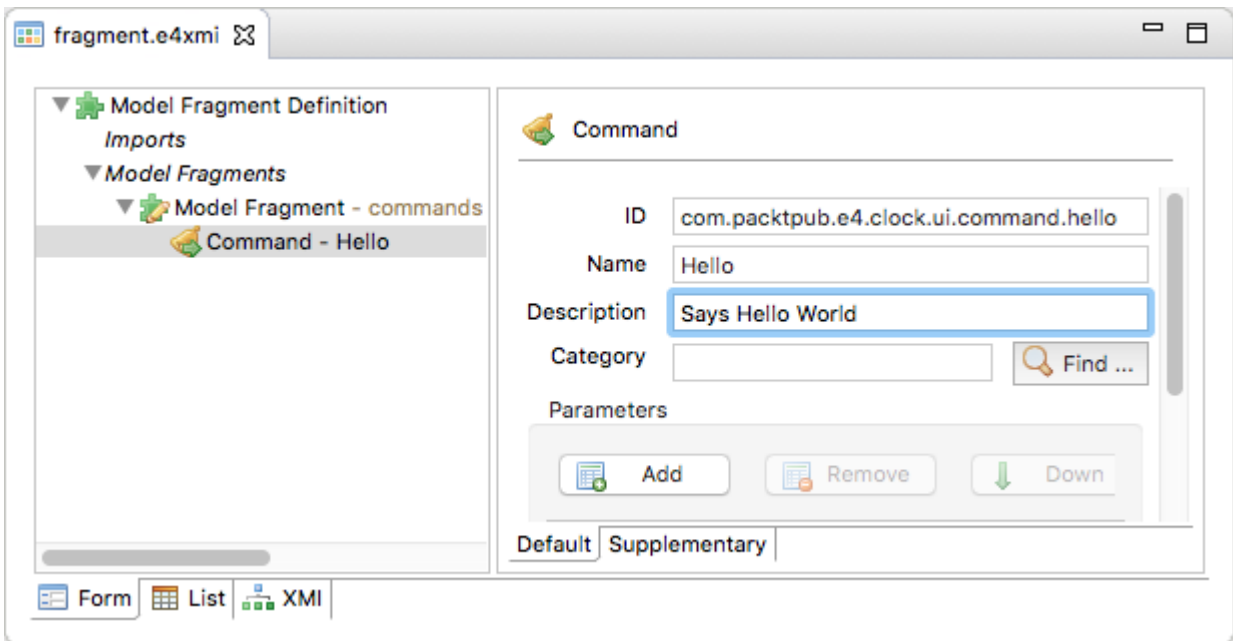
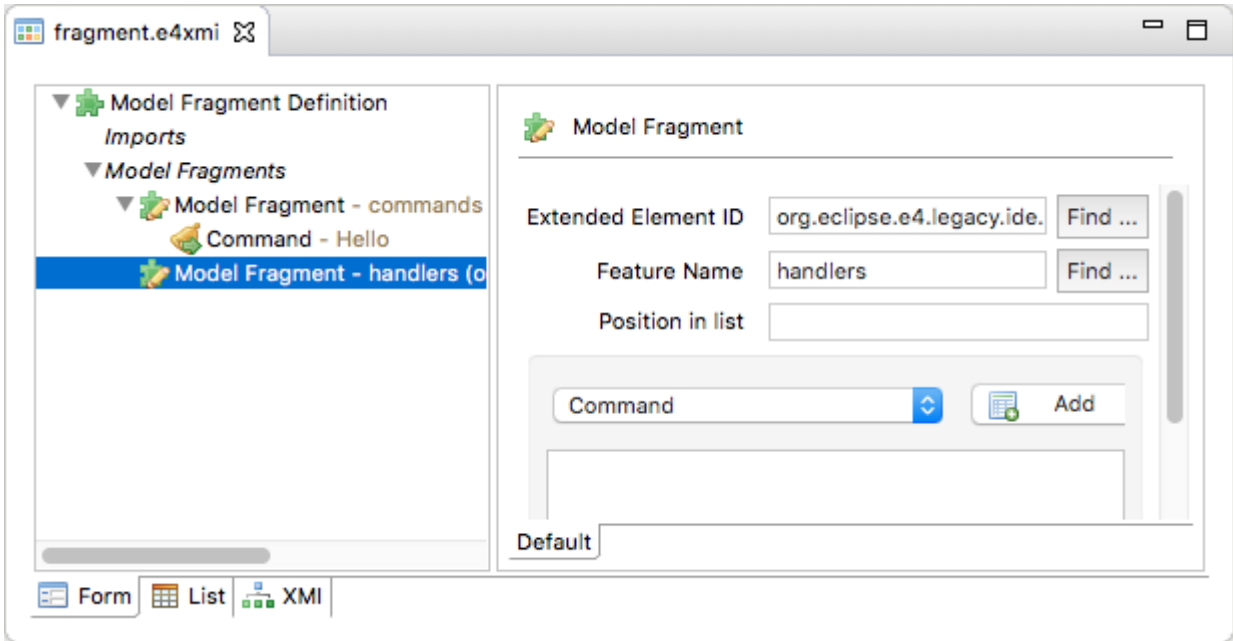
Command

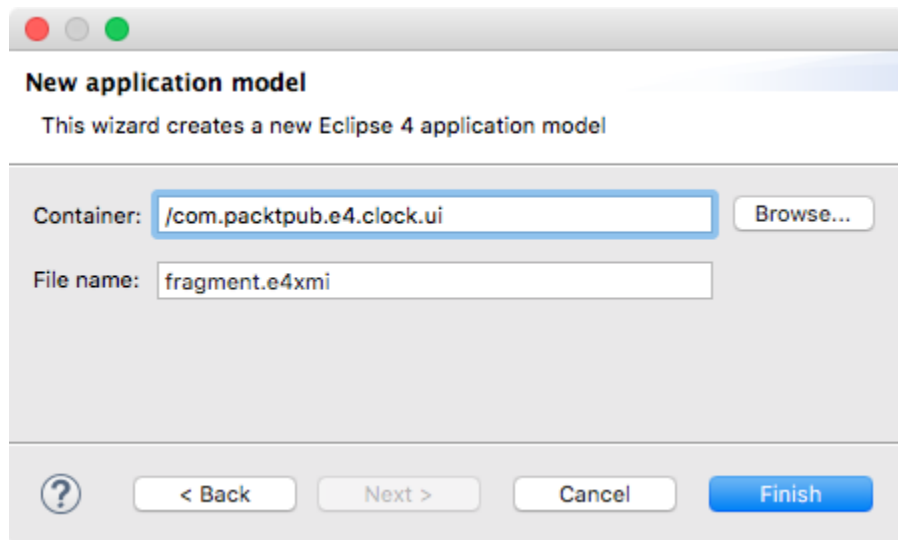
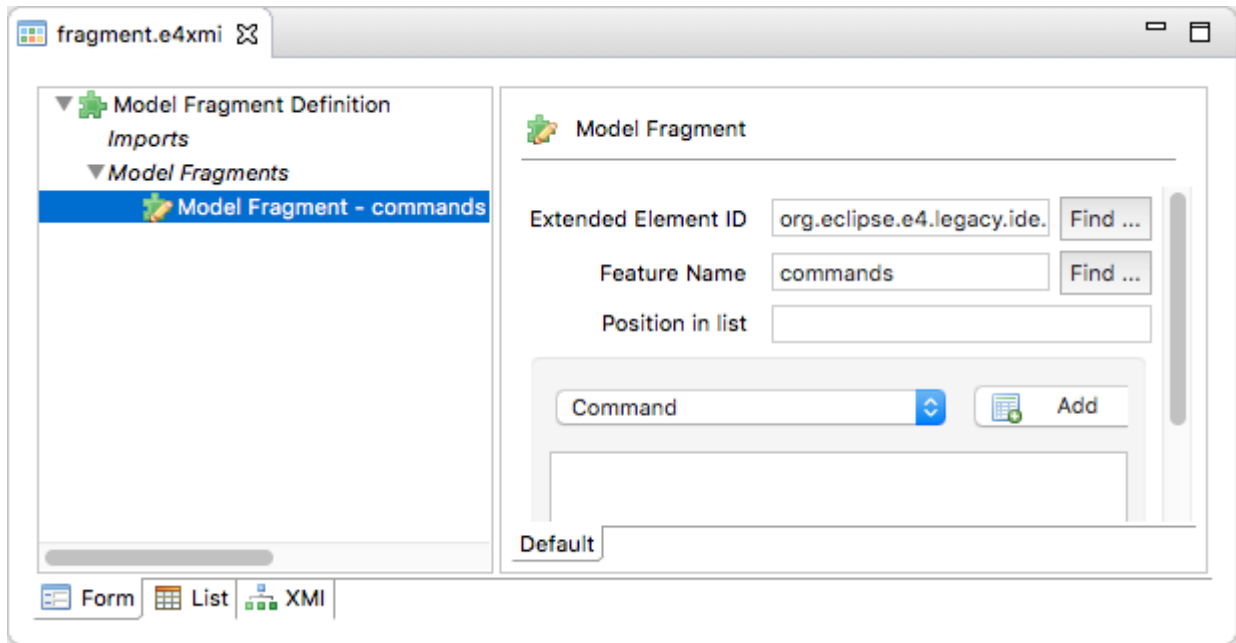
[Class URI](#)

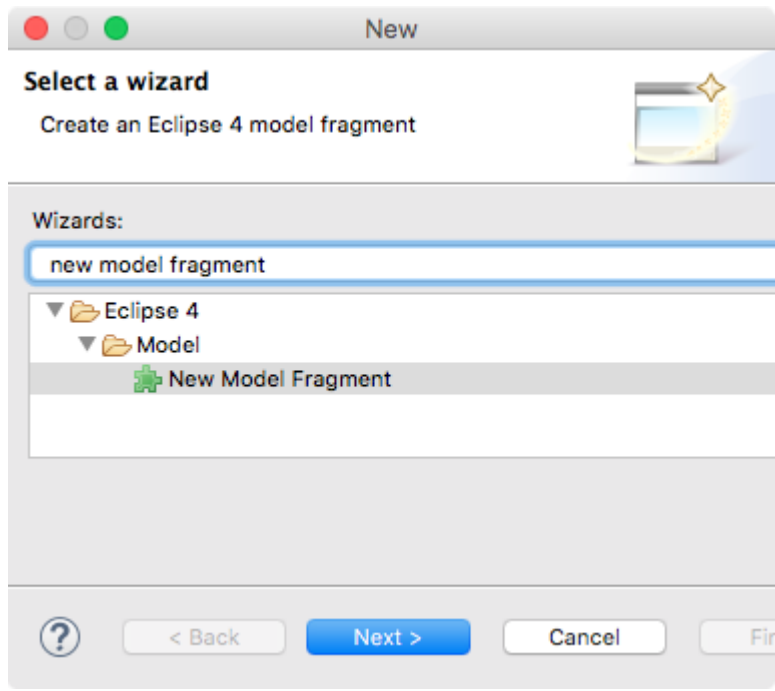
Persisted State

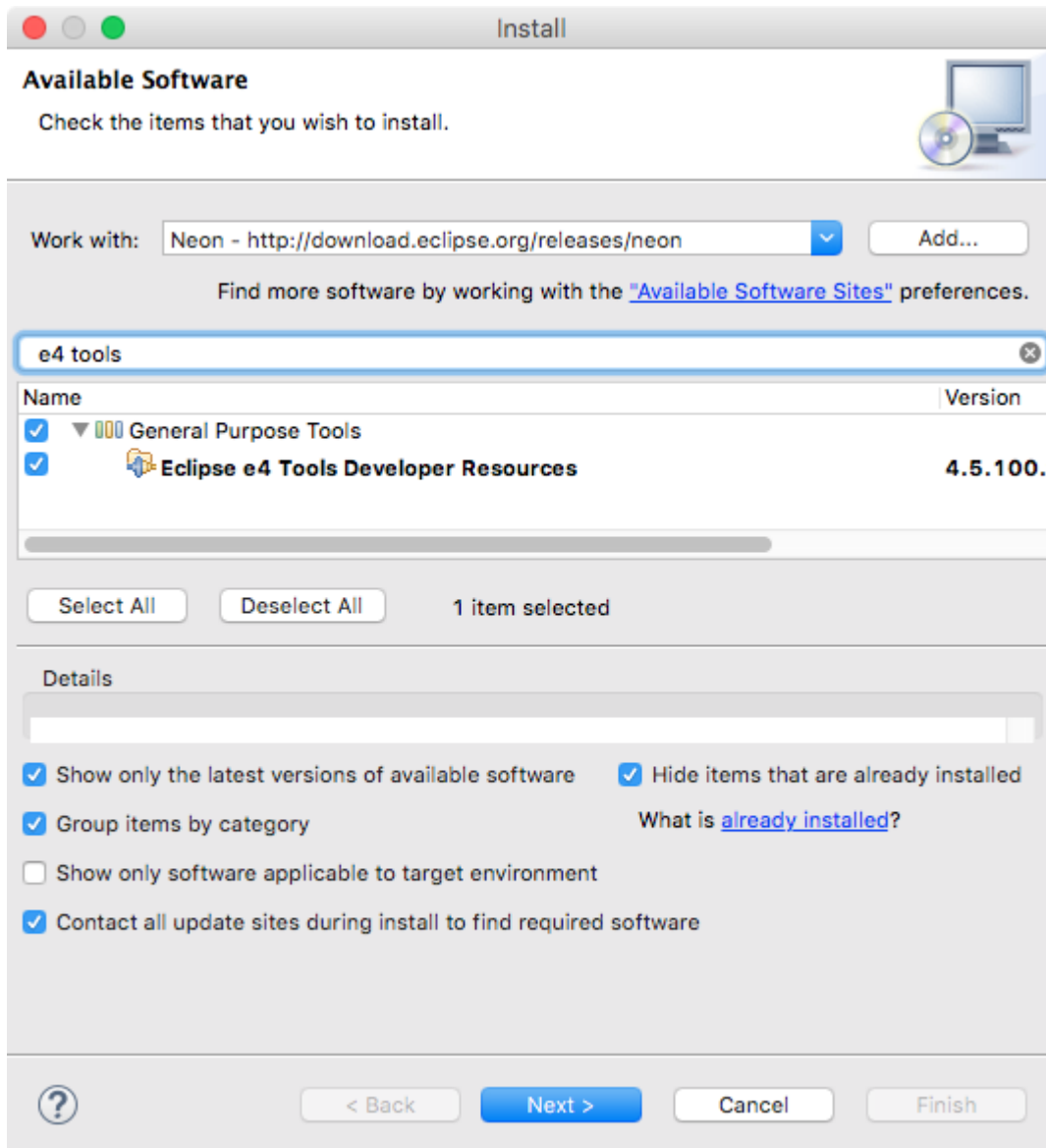
Key	Value
Default	
Supplementary	
Contrib. Instance	

Form List XMI

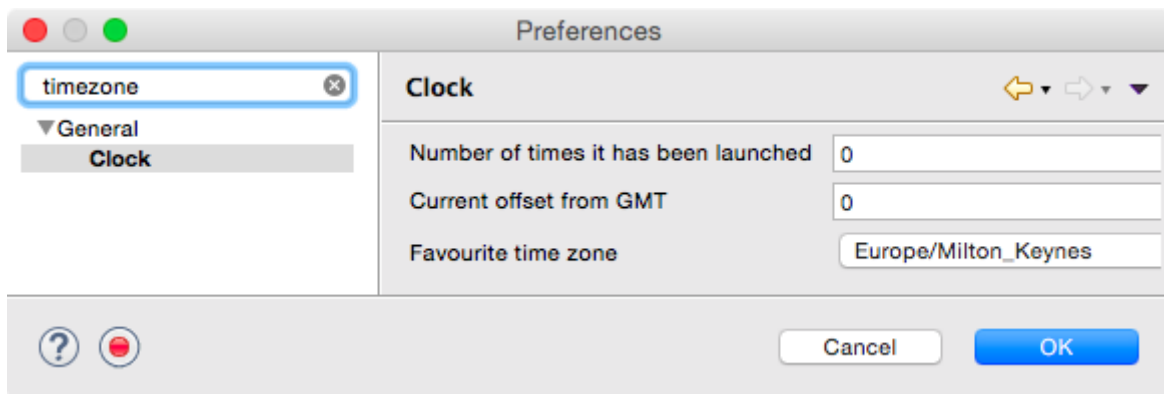
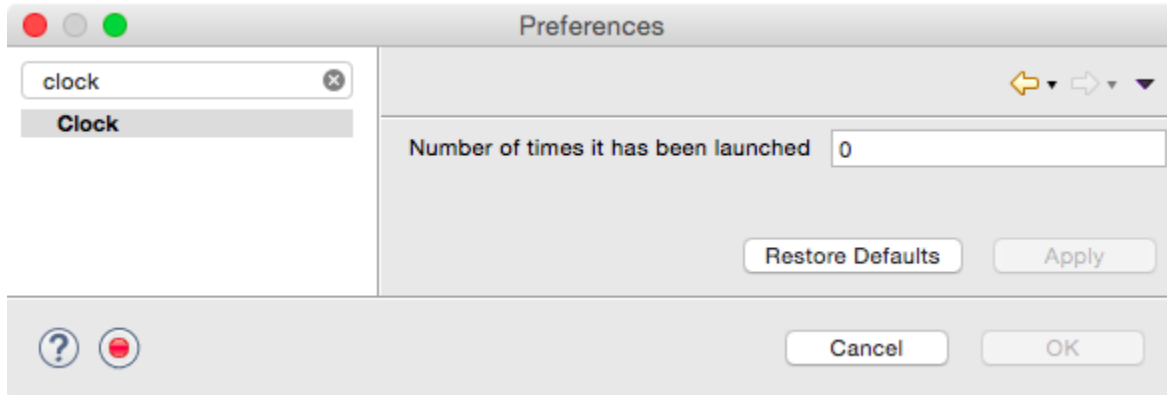


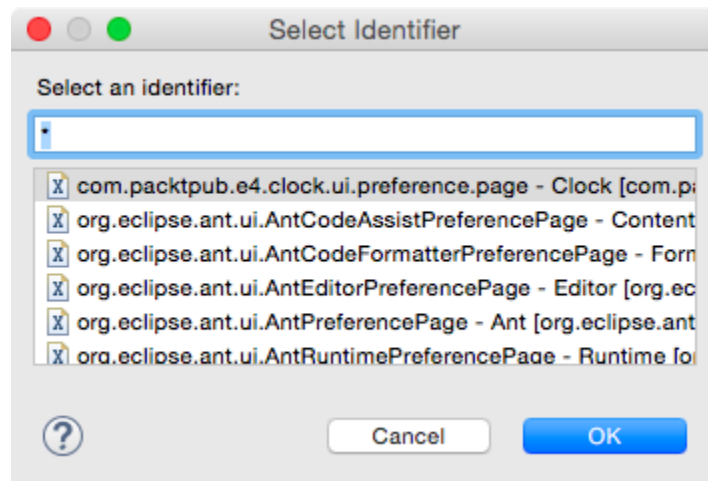
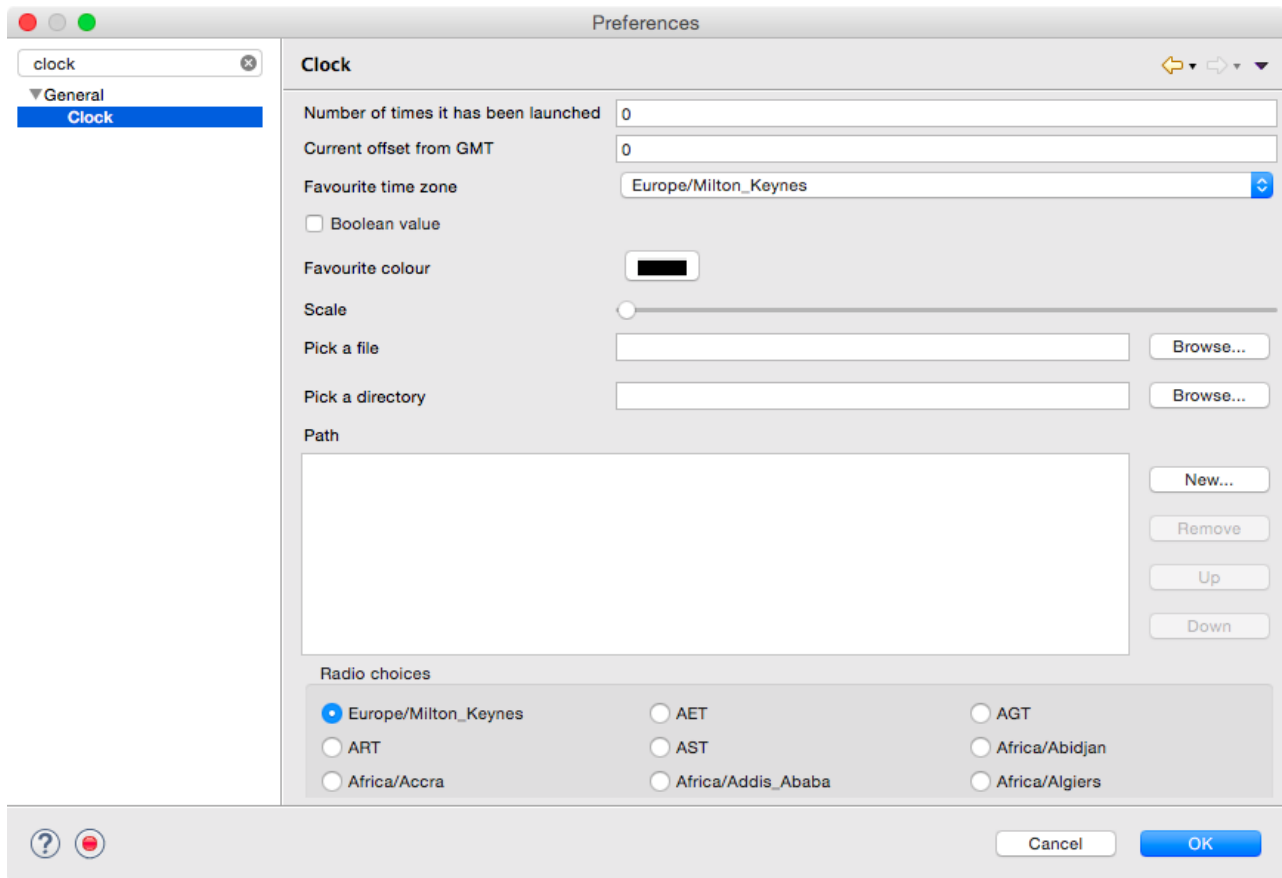


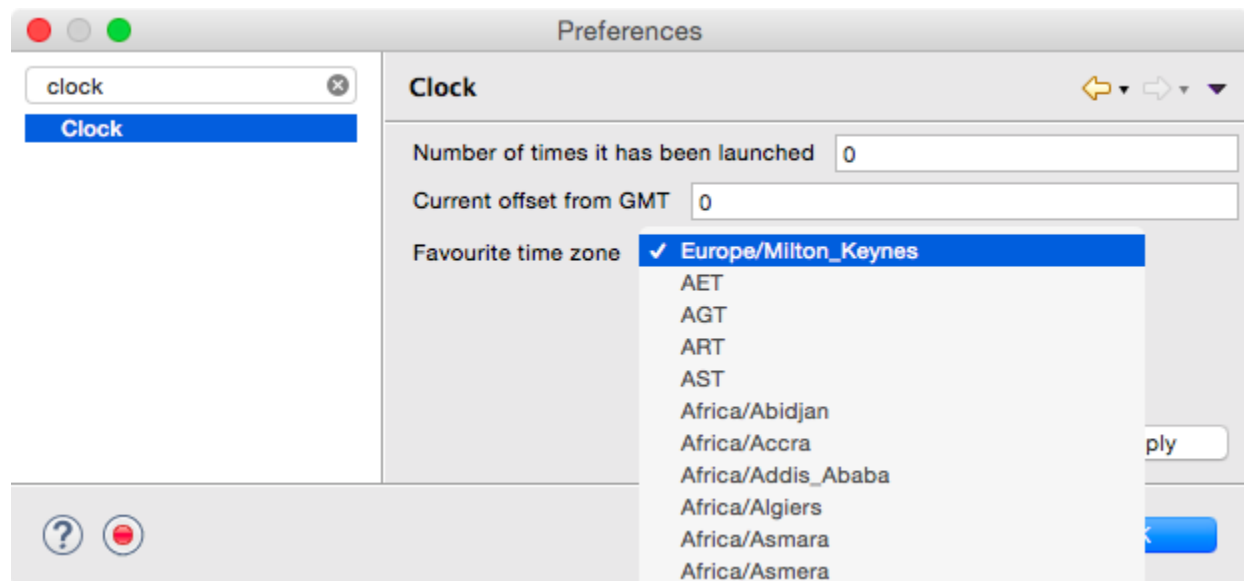
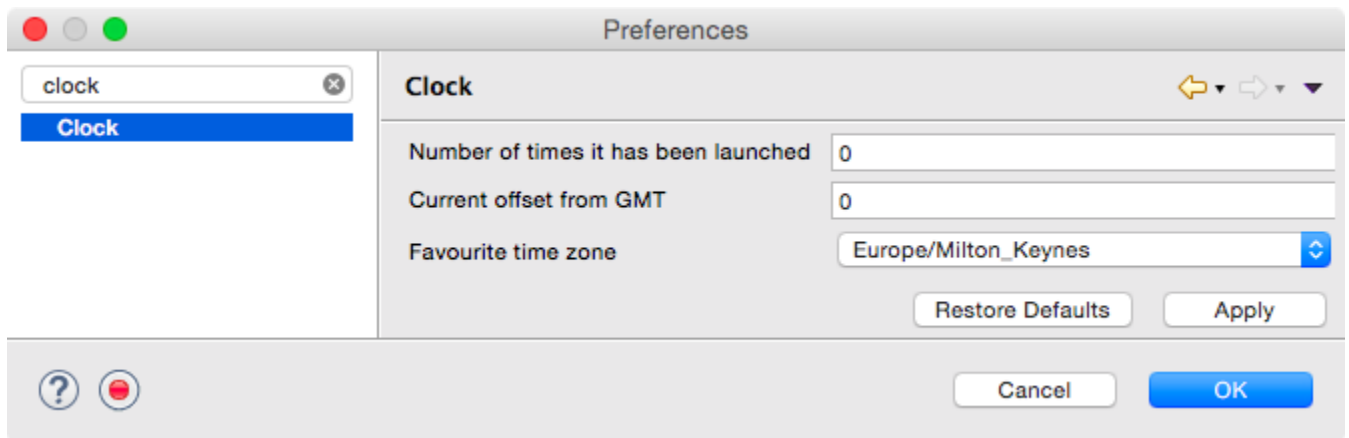
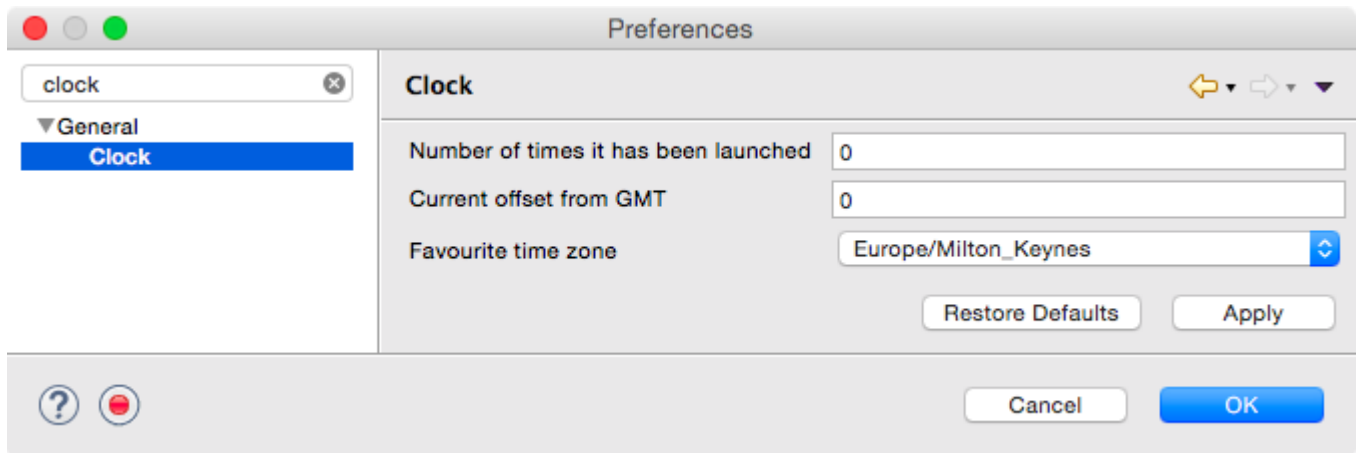


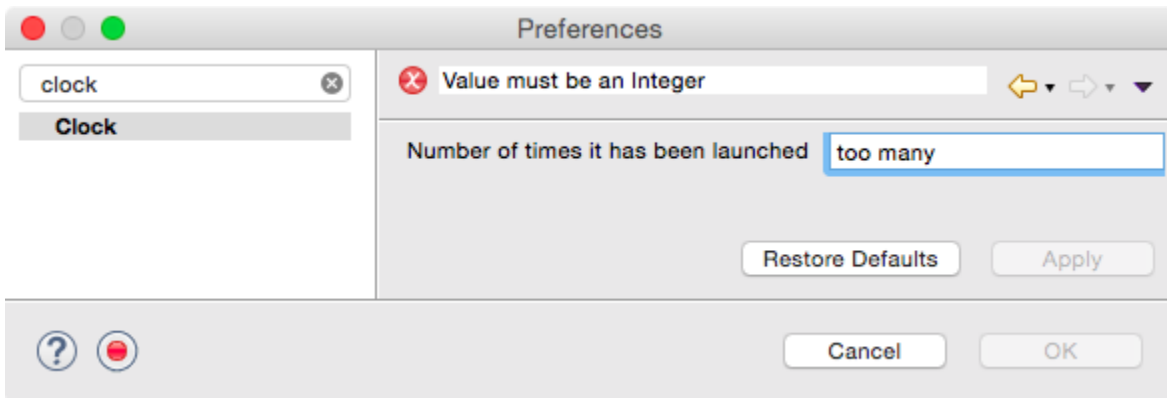
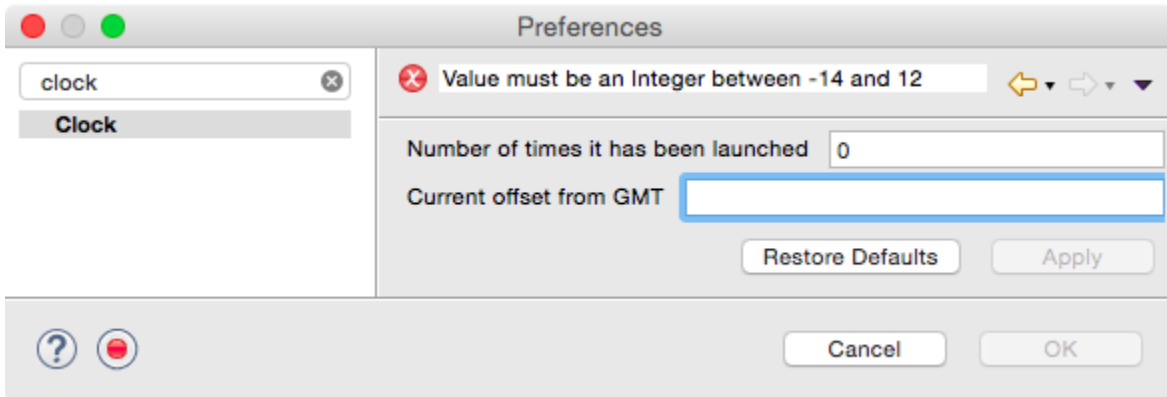


Chapter 5: Working with Preferences

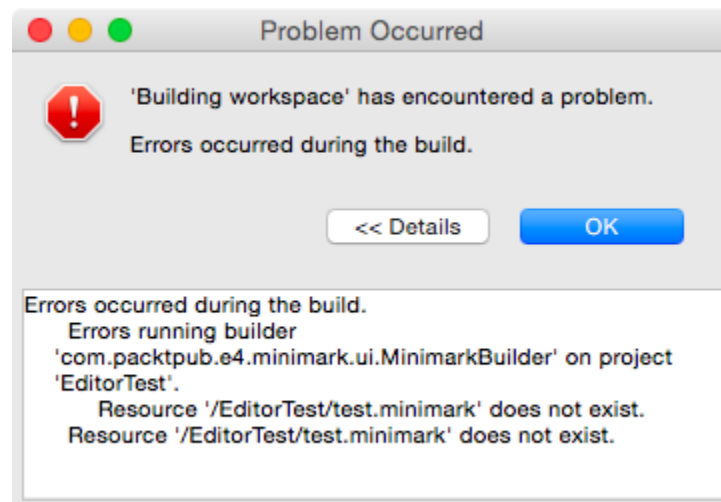
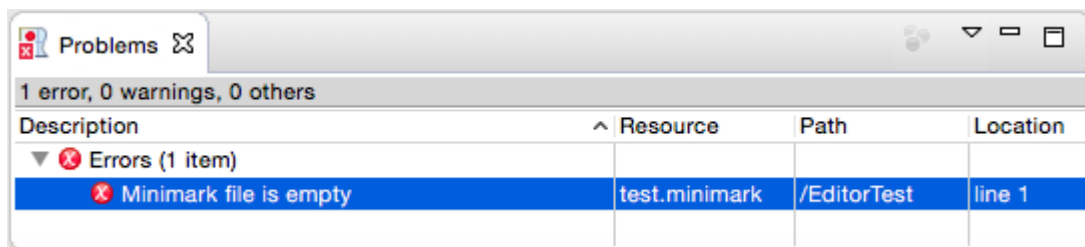
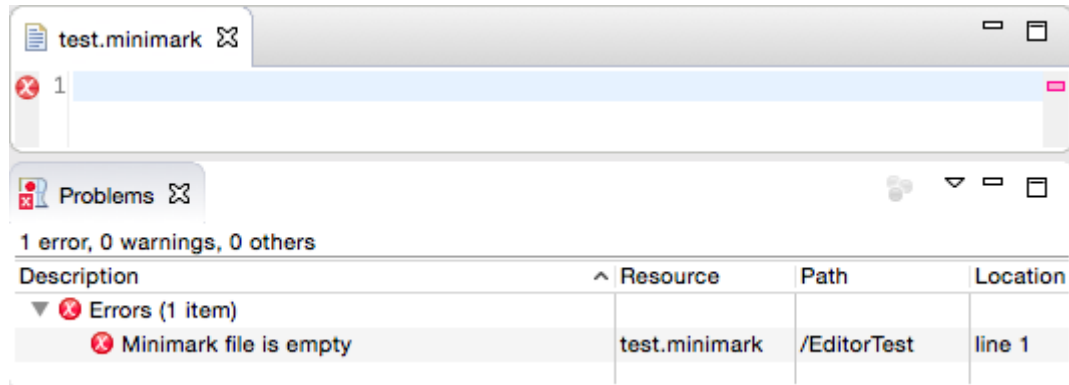


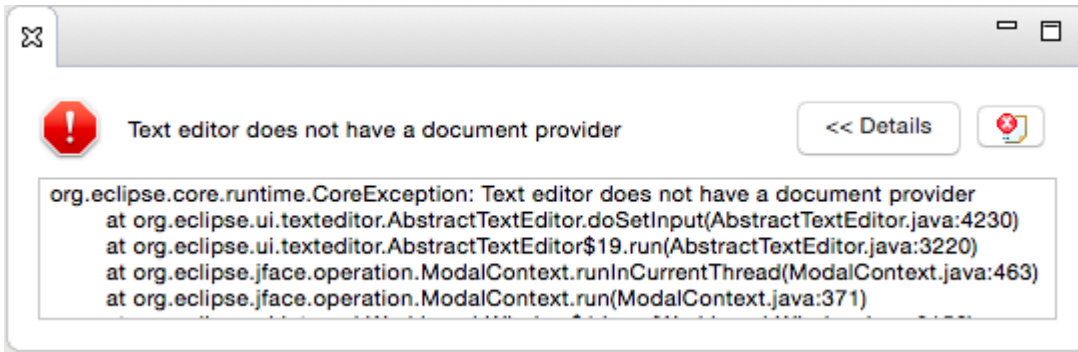




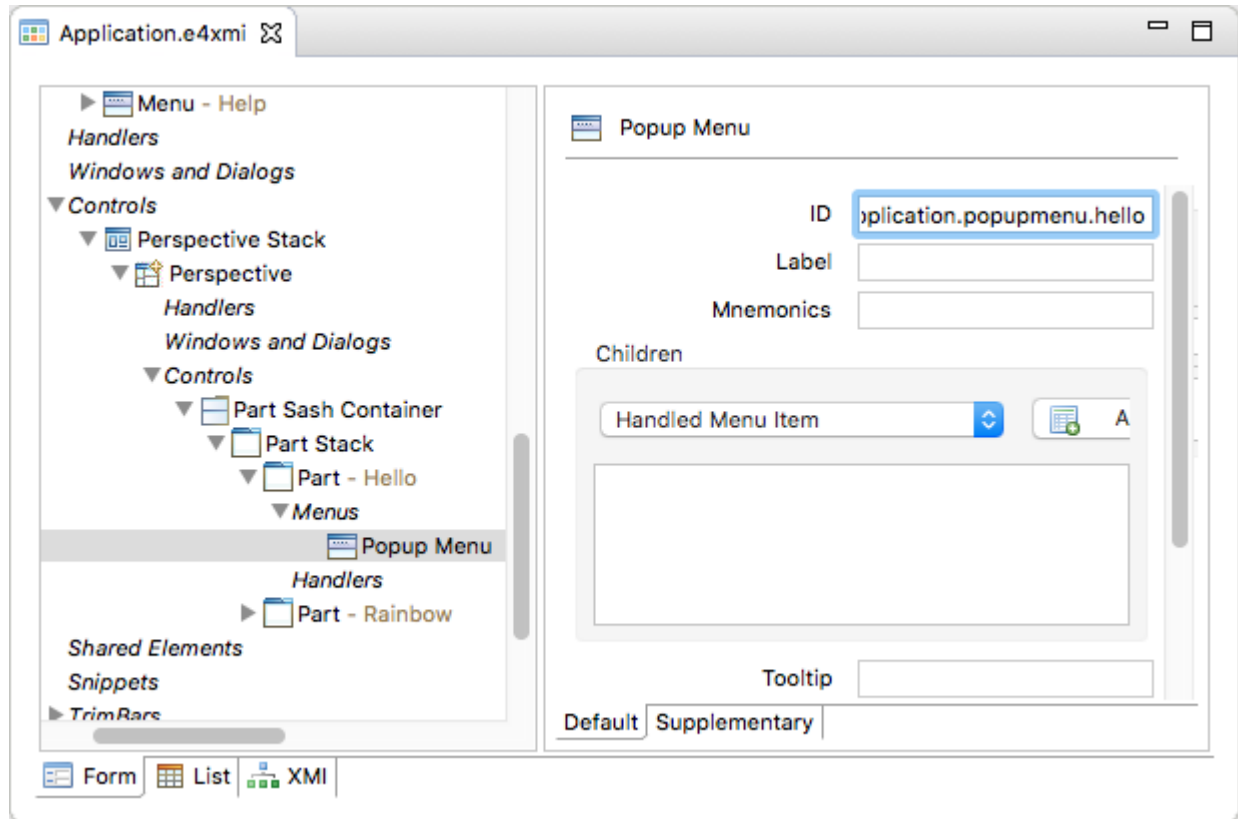


Chapter 6: Working with Resources





Chapter 7: Creating Eclipse 4 Applications



Application.e4xmi

Menu - Help

Handlers

Windows and Dialogs

Controls

Perspective Stack

Perspective

Handlers

Windows and Dialogs

Controls

Part Sash Container

Part Stack

Part - Hello

Menus

Popup Menu

Handled M

Handlers

Part - Rainbow

Shared Elements

Snippets

Handled Menu Item

ID: com.packtpub.e4.applicati

Type: Push

Label: Hello

Mnemonics:

Tooltip:

Icon URI: Find ...

Enabled:

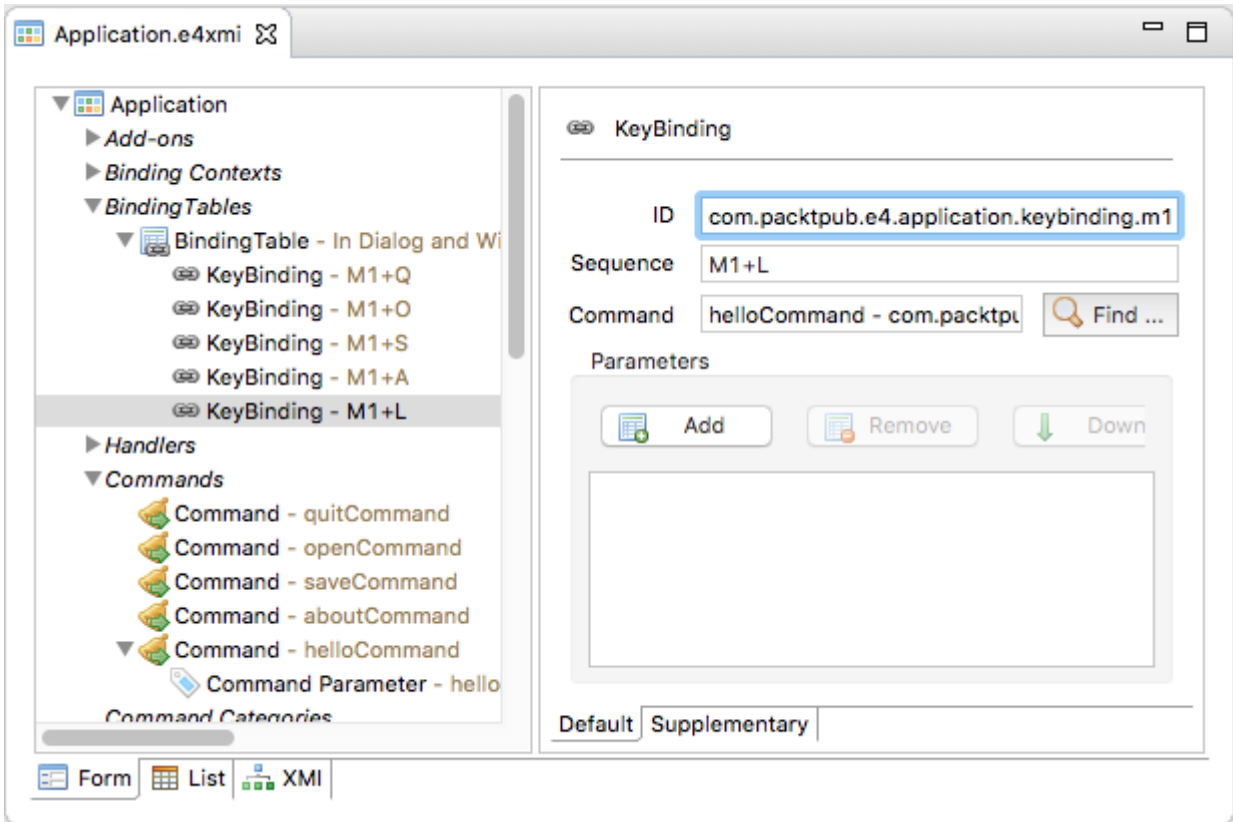
Selected:

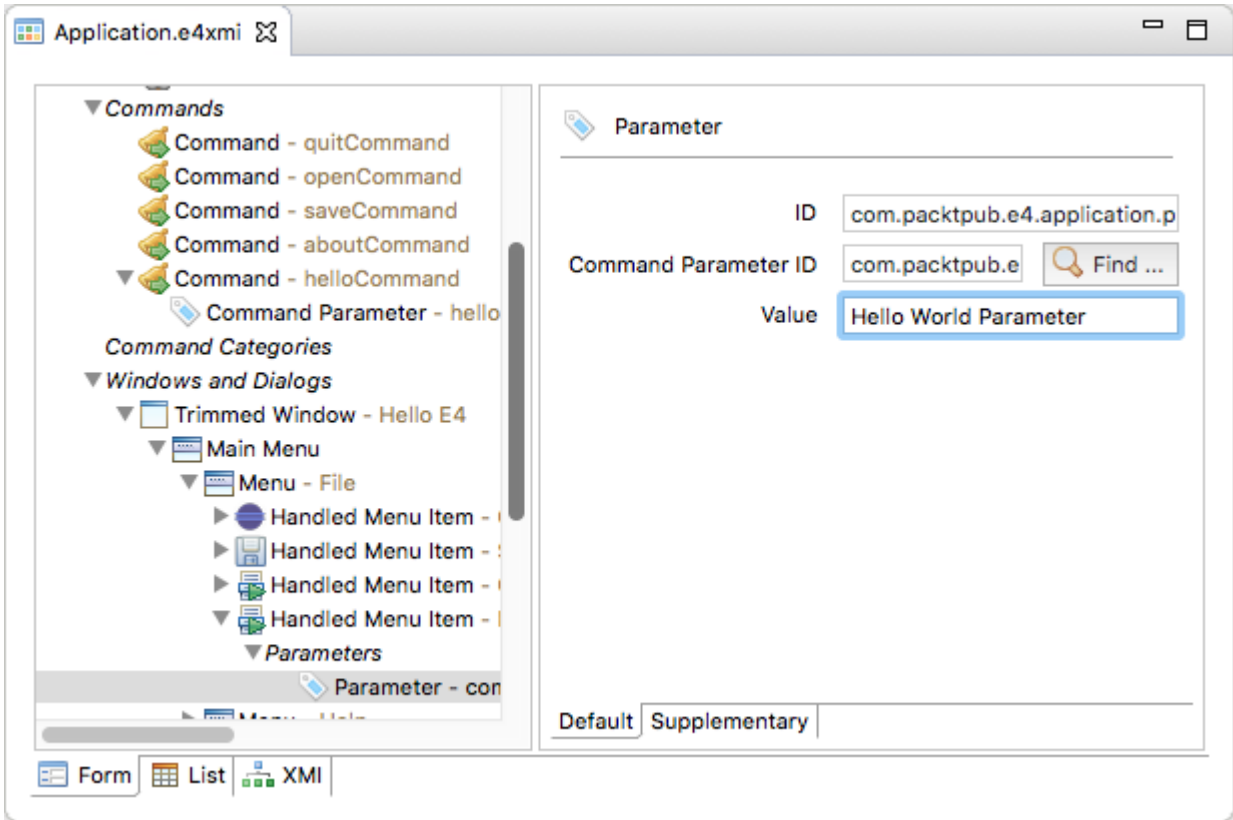
Visible-When Expression: <None>

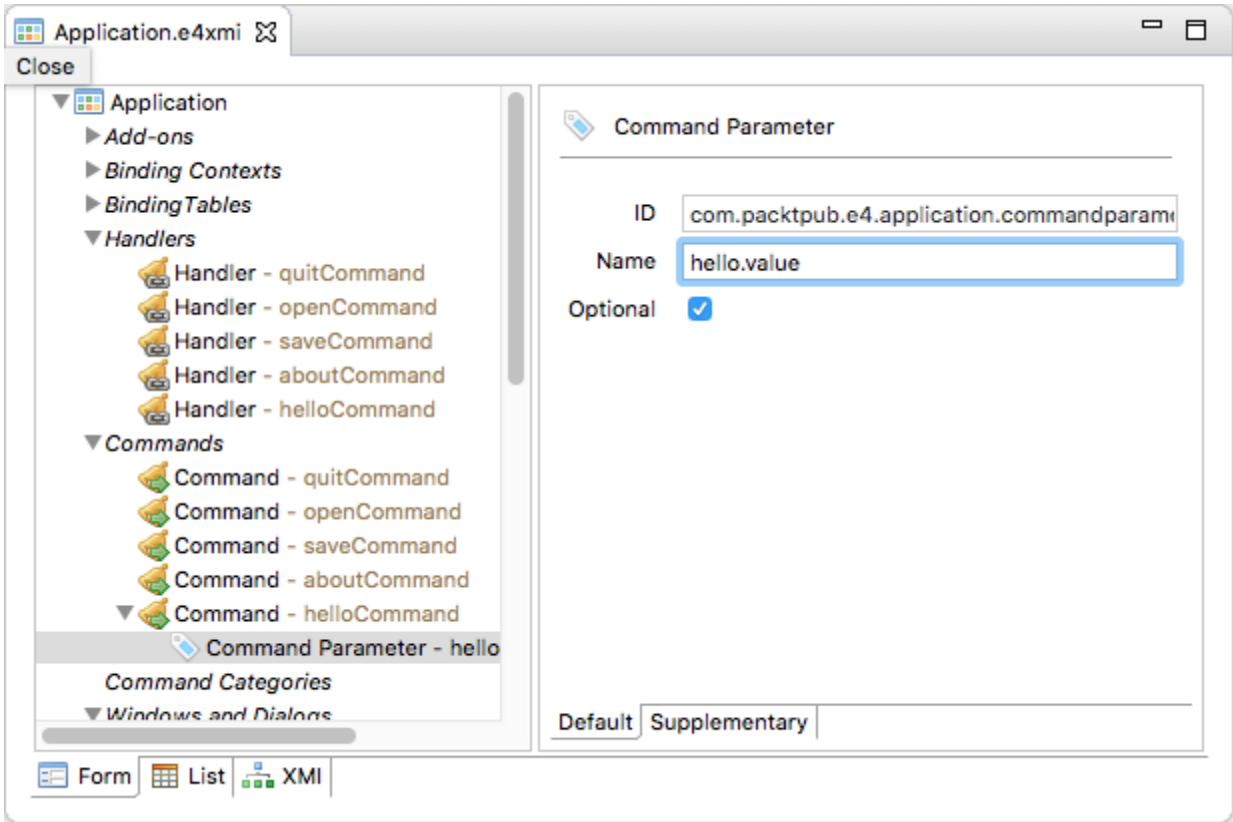
Command: helloComma Find ...

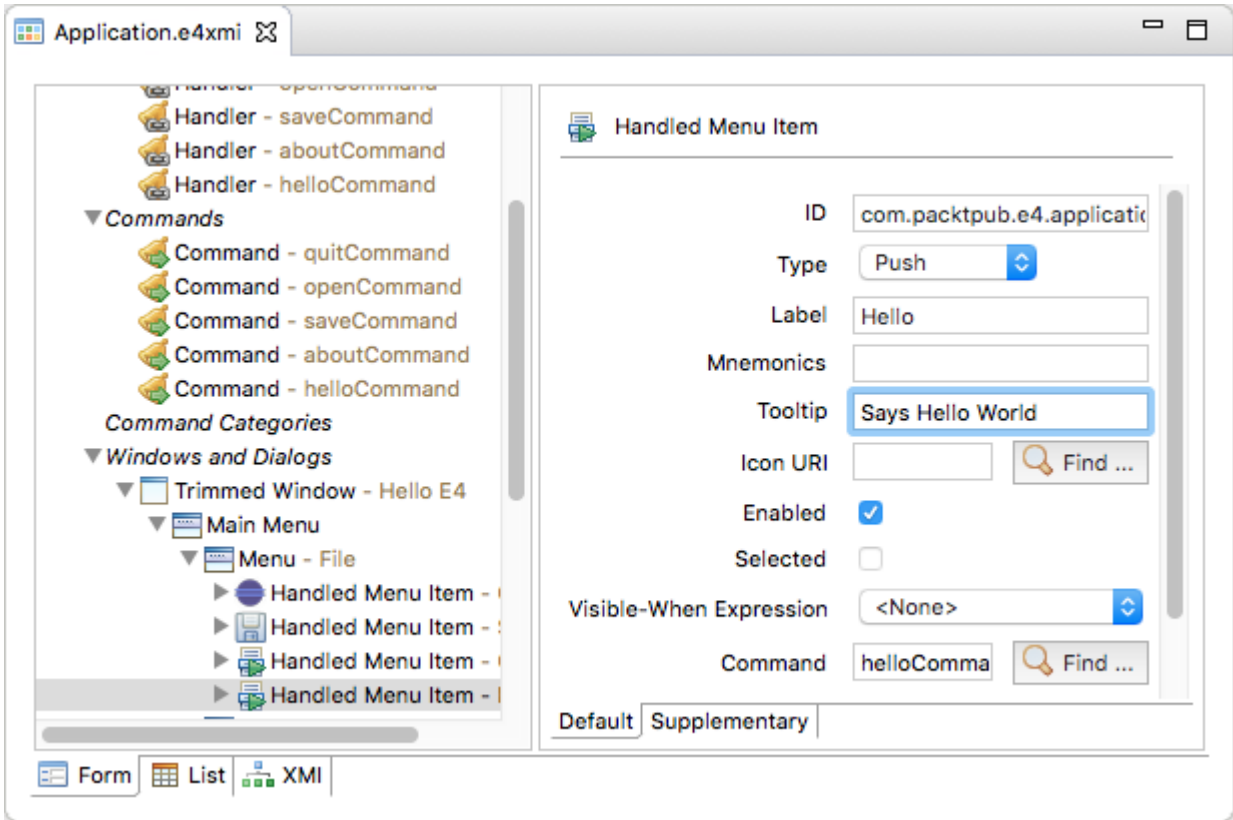
Default Supplementary

Form List XMI









Application.e4xmi

- Application
 - Add-ons
 - Binding Contexts
 - Binding Tables
 - Handlers
 - Handler - quitCommand
 - Handler - openCommand
 - Handler - saveCommand
 - Handler - aboutCommand
 - Handler - helloCommand**
 - Commands
 - Command - quitCommand
 - Command - openCommand
 - Command - saveCommand
 - Command - aboutCommand
 - Command - helloCommand
 - Command Categories
 - Windows and Dialogs
 - Part Descriptors
 - Menu Contributions

Handler

ID:

Command: Find ...

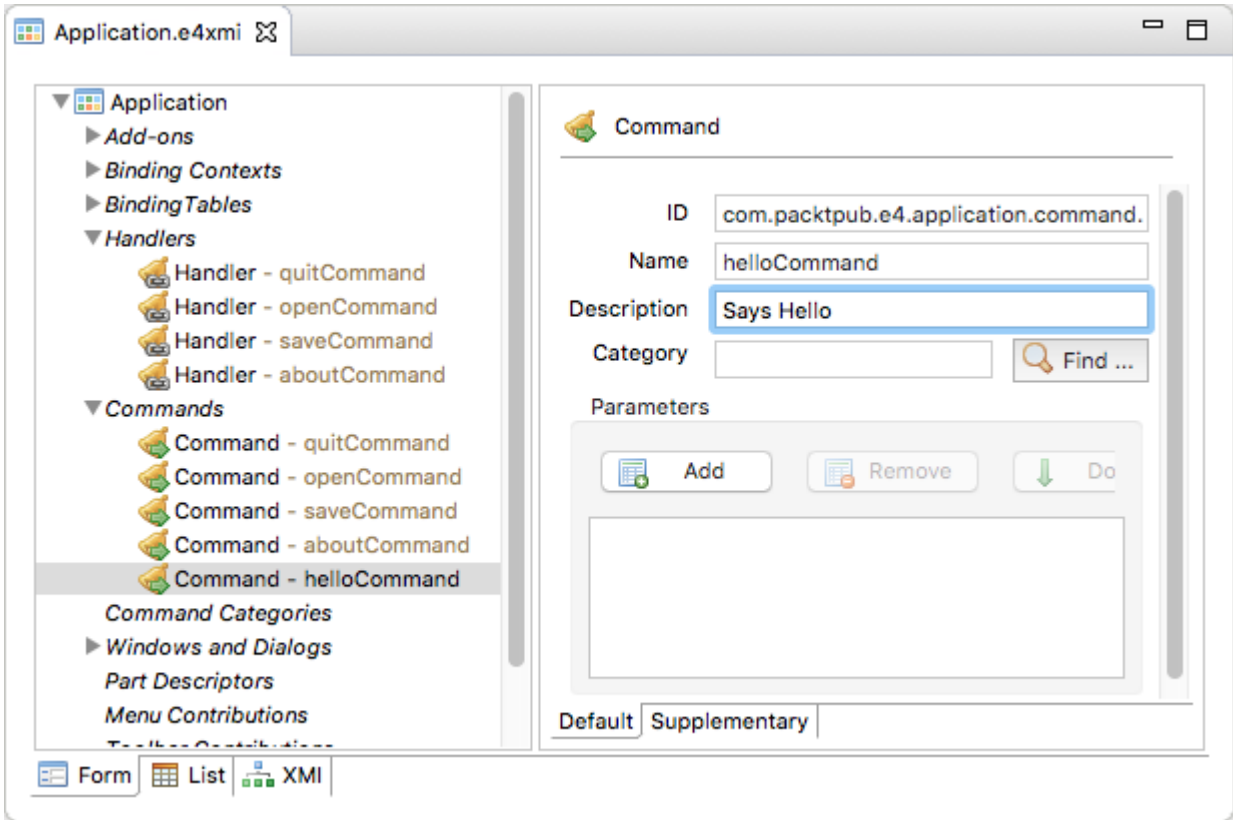
Class URI: Find ...

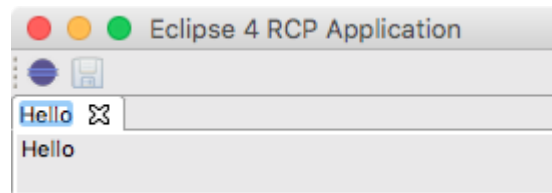
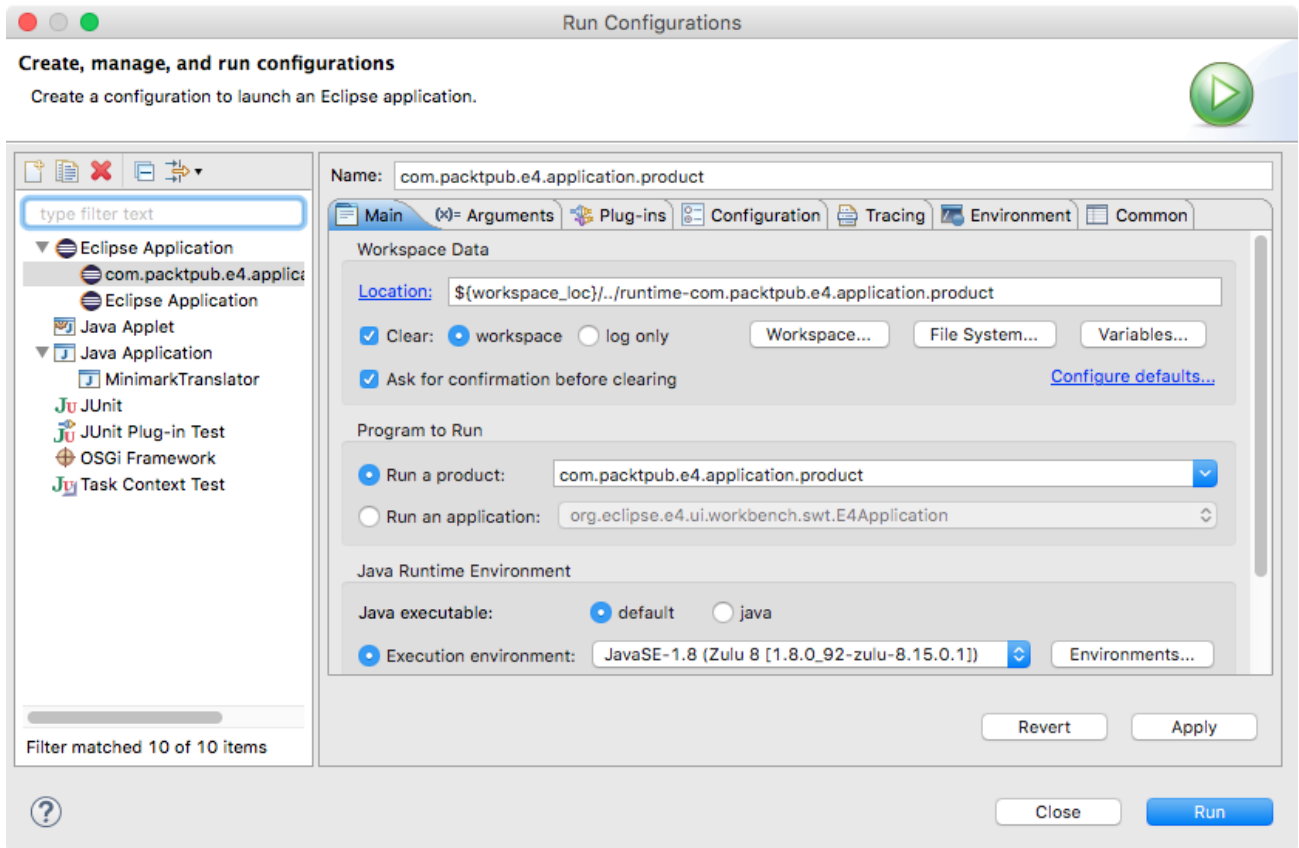
Persisted State

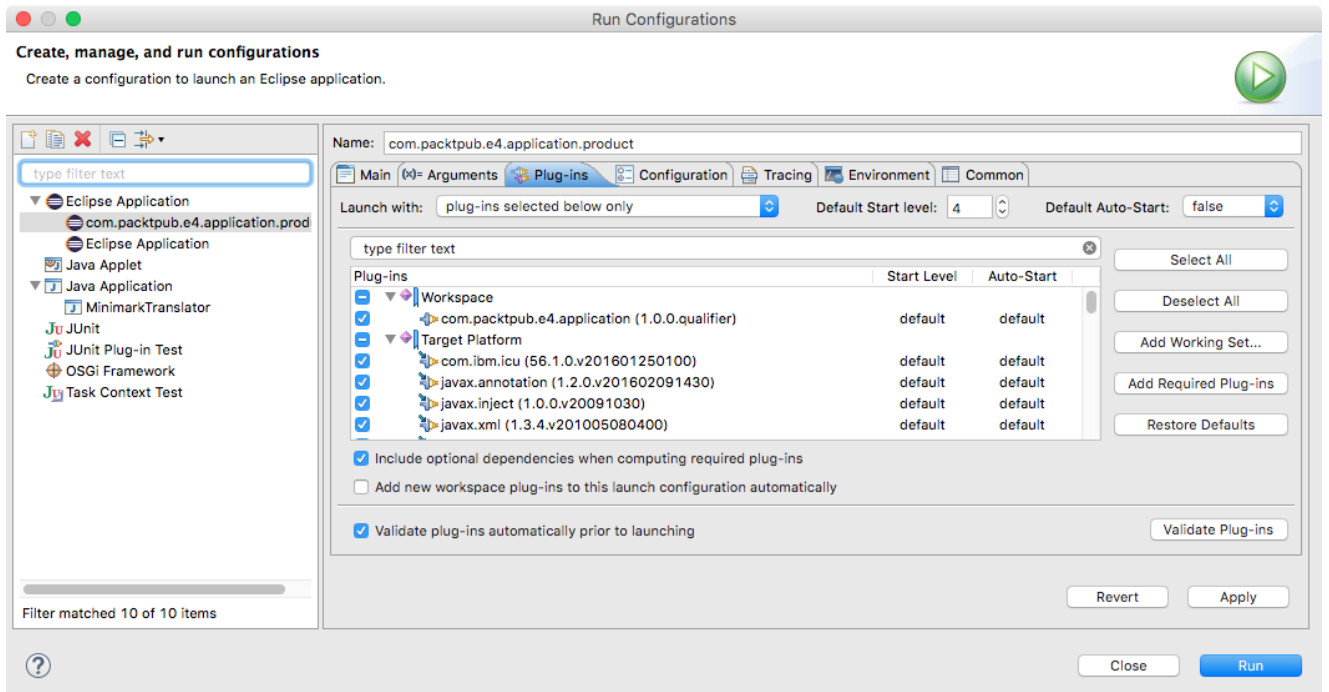
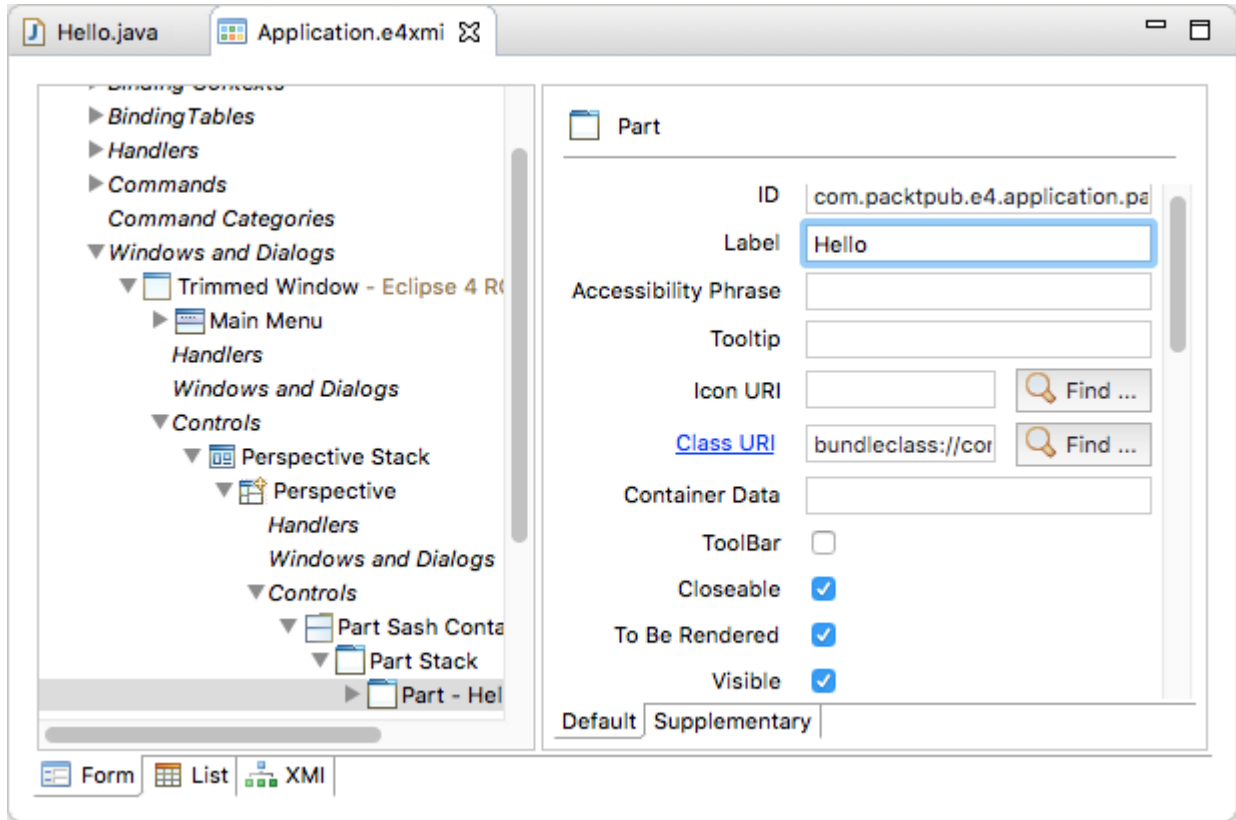
Key	Value
-----	-------

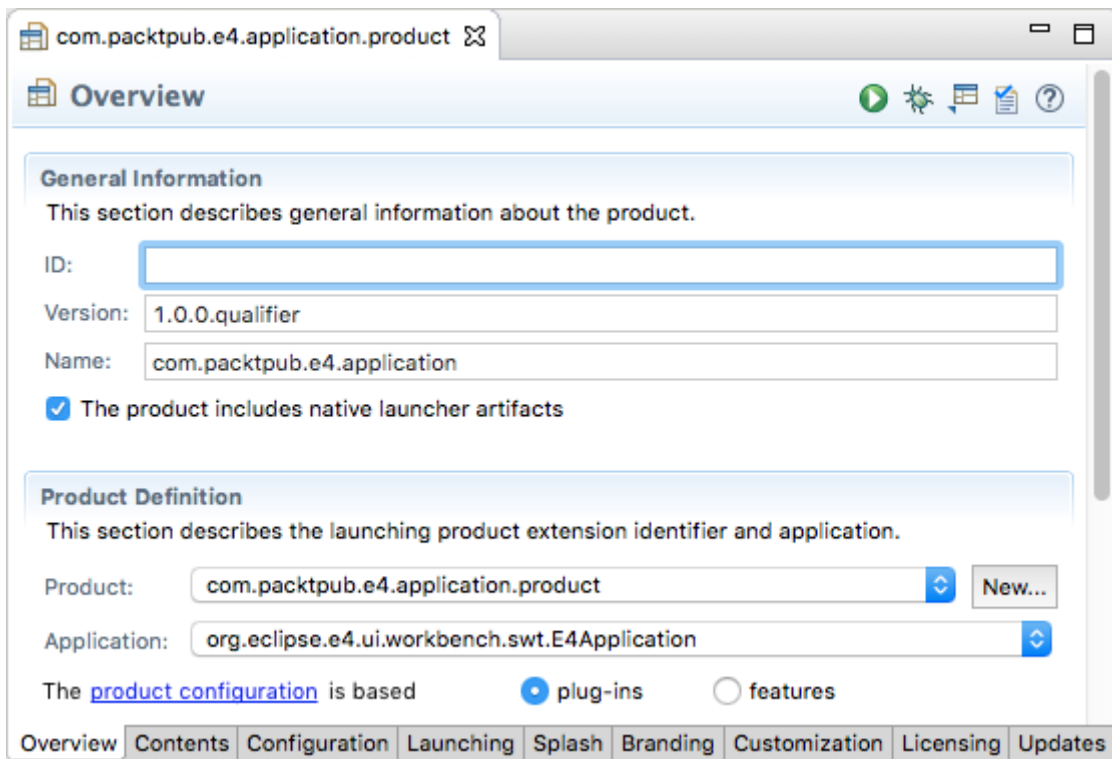
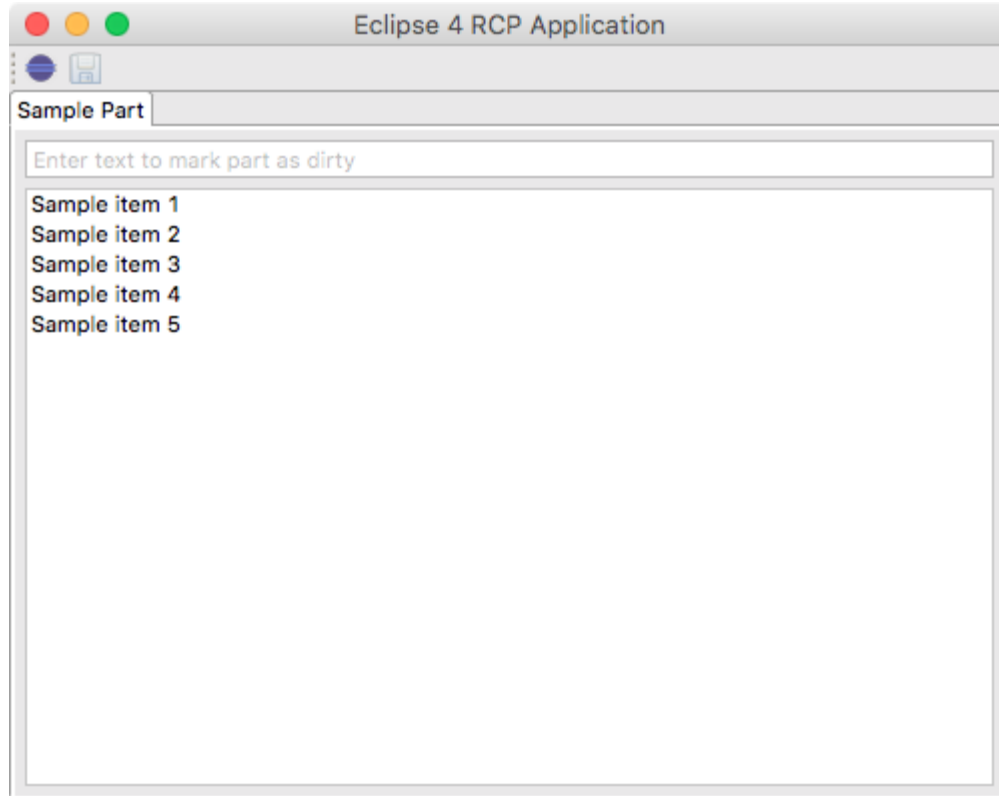
Default | Supplementary | Contrib. Instance

Form | List | XMI









Eclipse 4 RCP Application with basic part and commands

Basic Eclipse 4 Application

This template creates an Eclipse 4 RCP application that consists of an application window and optionally consists of a part, several commands and a life cycle class.


Application window title:

Create sample content (part, menu, command...)

Java package name:

Add life cycle class


Life cycle class name:



New Plug-in Project

Content

Enter the data required to generate the plug-in.



Properties

ID:

Version:

Name:

Vendor:

Execution Environment:

Options

Generate an activator, a Java class that controls the plug-in's life cycle

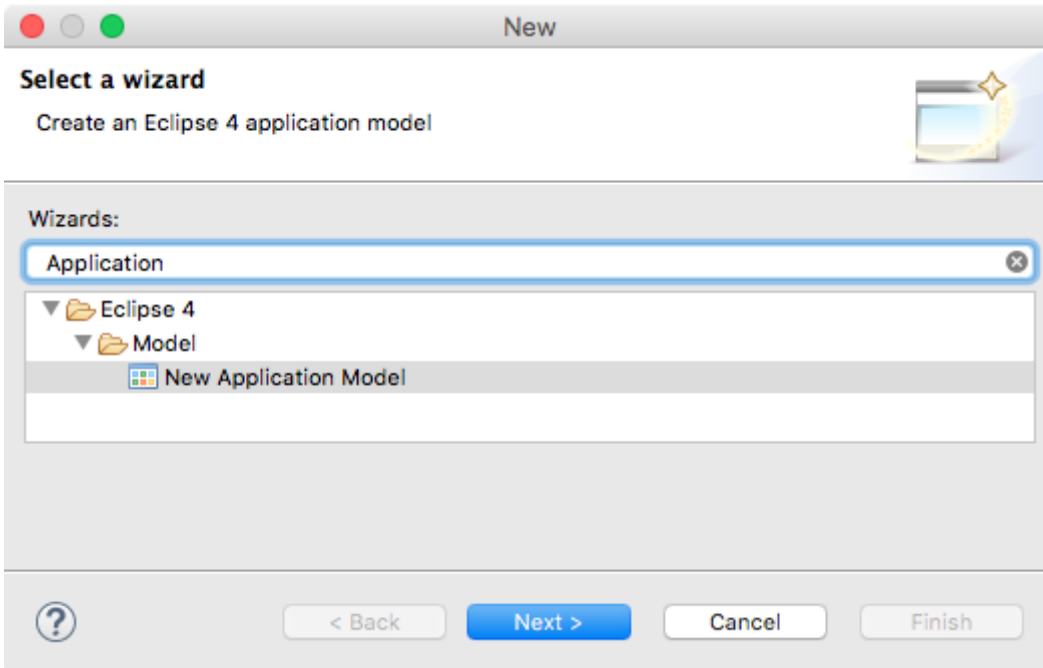
Activator:

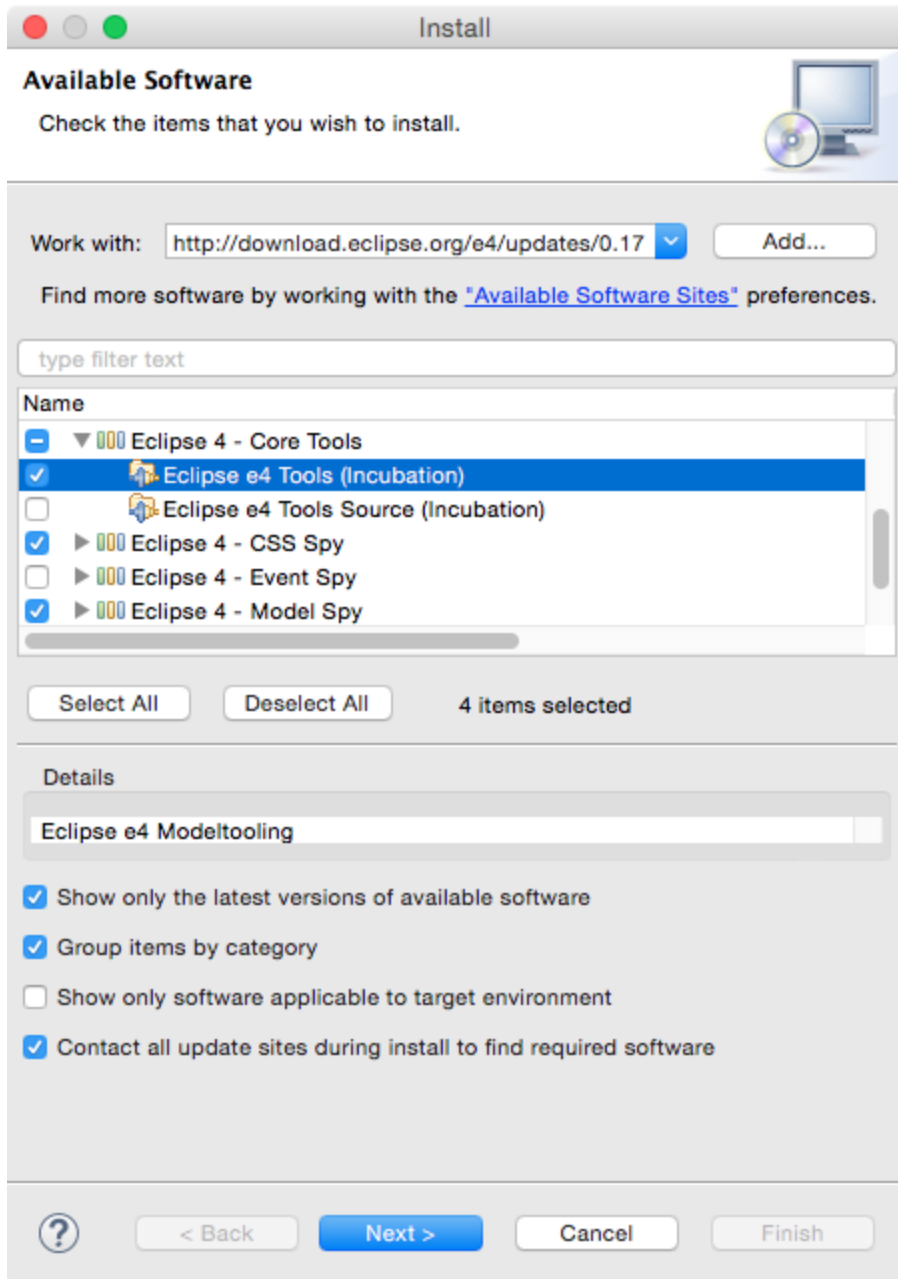
This plug-in will make contributions to the UI

Enable API analysis

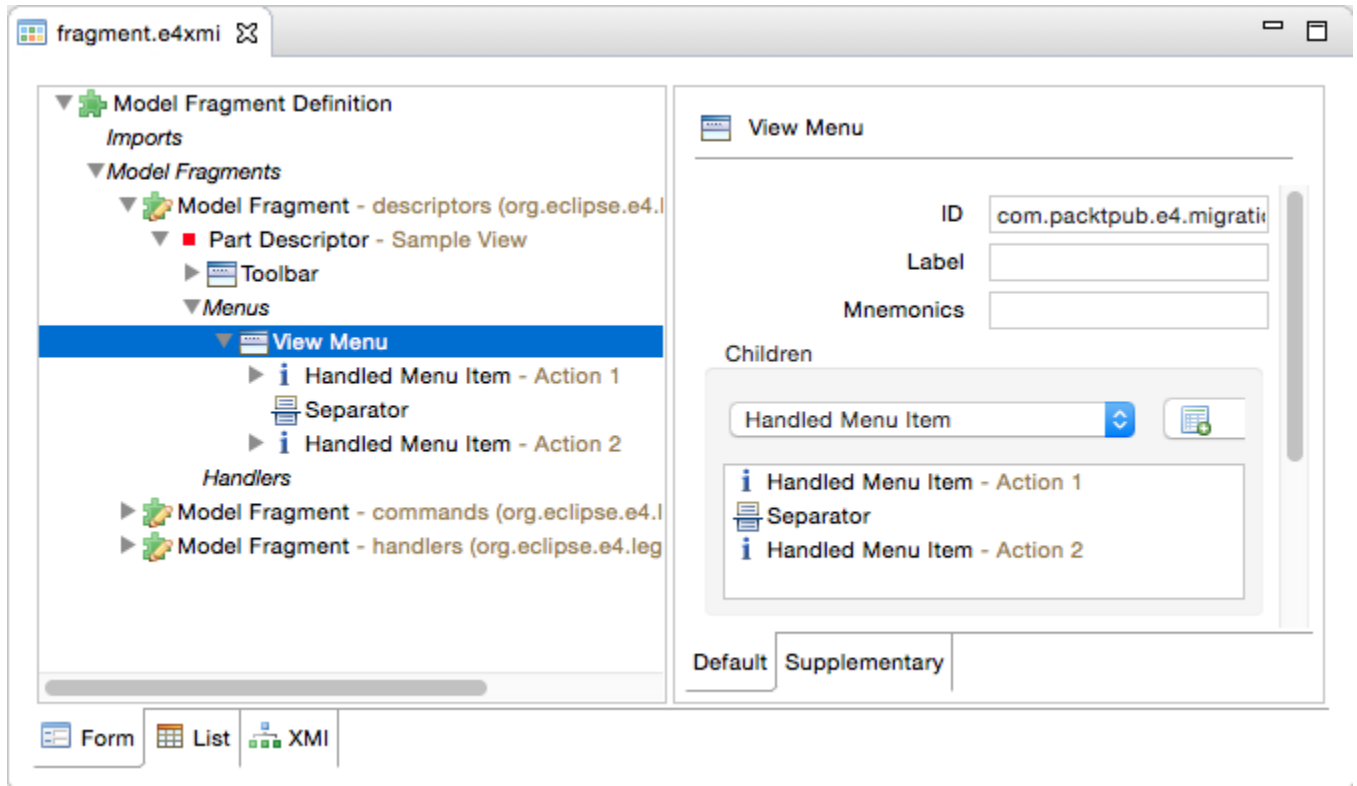
Rich Client Application

Would you like to create a rich client application? Yes No





Chapter 8: Migrating to Eclipse 4.x



fragment.e4xmi

Model Fragment Definition

- Imports
 - Model Fragments
 - Model Fragment - descriptors (org.eclipse.e...
 - Part Descriptor - Sample View
 - Toolbar
 - Handled Tool Item - Action 1
 - Handled Tool Item - Action 2
 - Menus
 - View Menu
 - Handled Menu Item - Action 1**
- Handlers
 - Model Fragment - commands (org.eclipse.e...
 - Model Fragment - handlers (org.eclipse.e4.l...

Handled Menu Item

ID: com.packtpub.e4.migration

Type: Push

Label: Action 1

Mnemonics:

Tooltip: Action 1 tooltip

Icon URI: platform:/plu

Enabled:

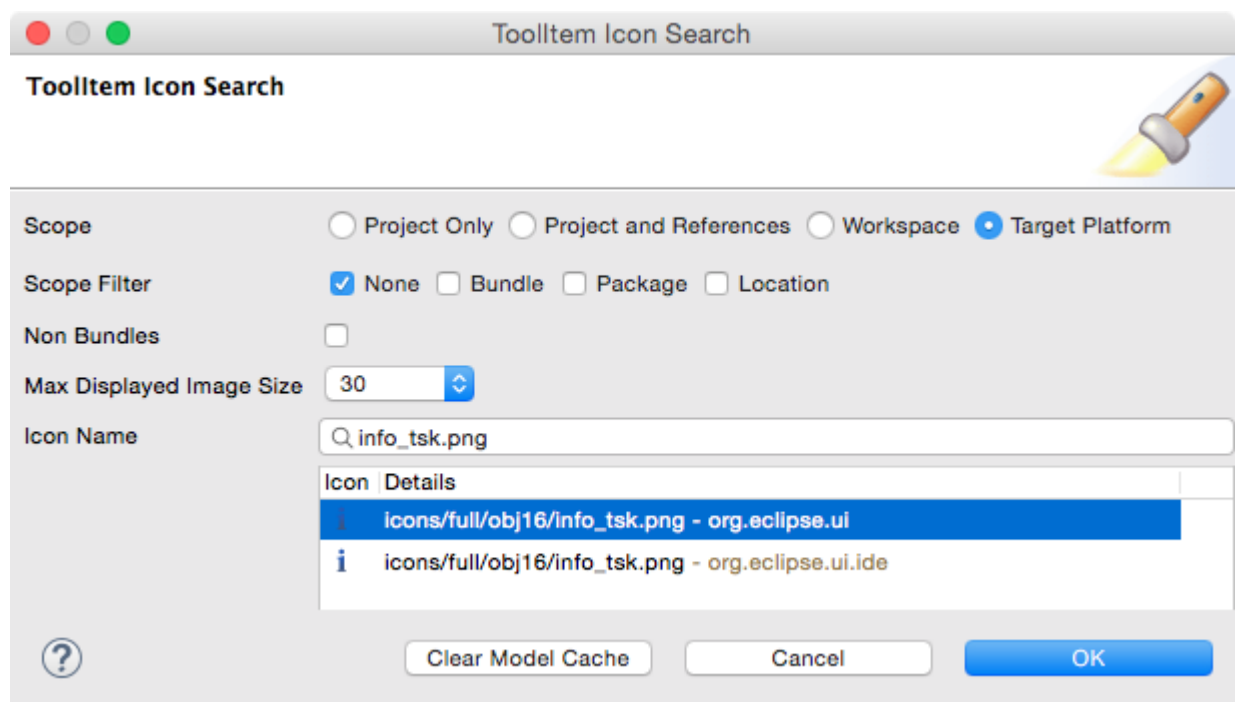
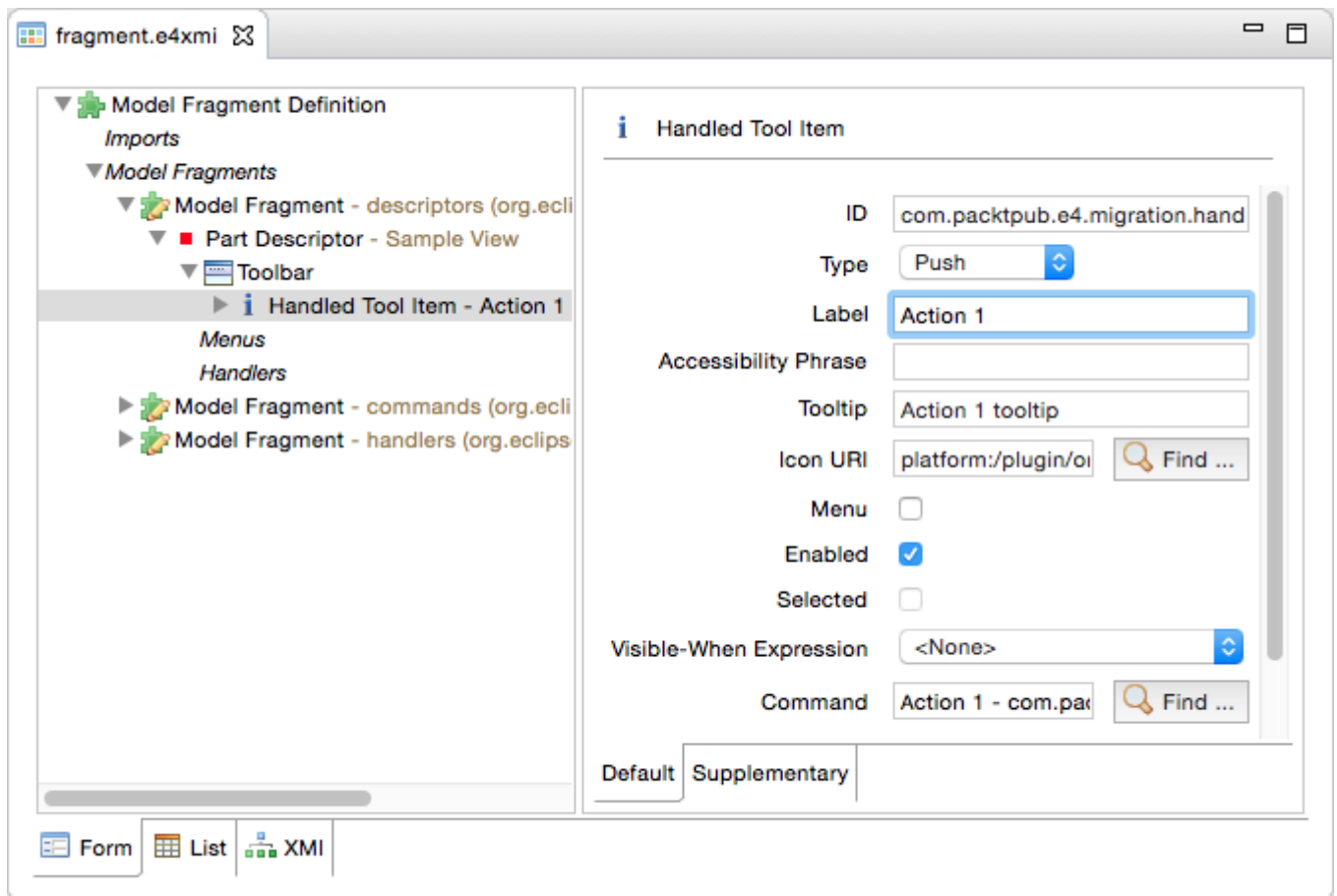
Selected:

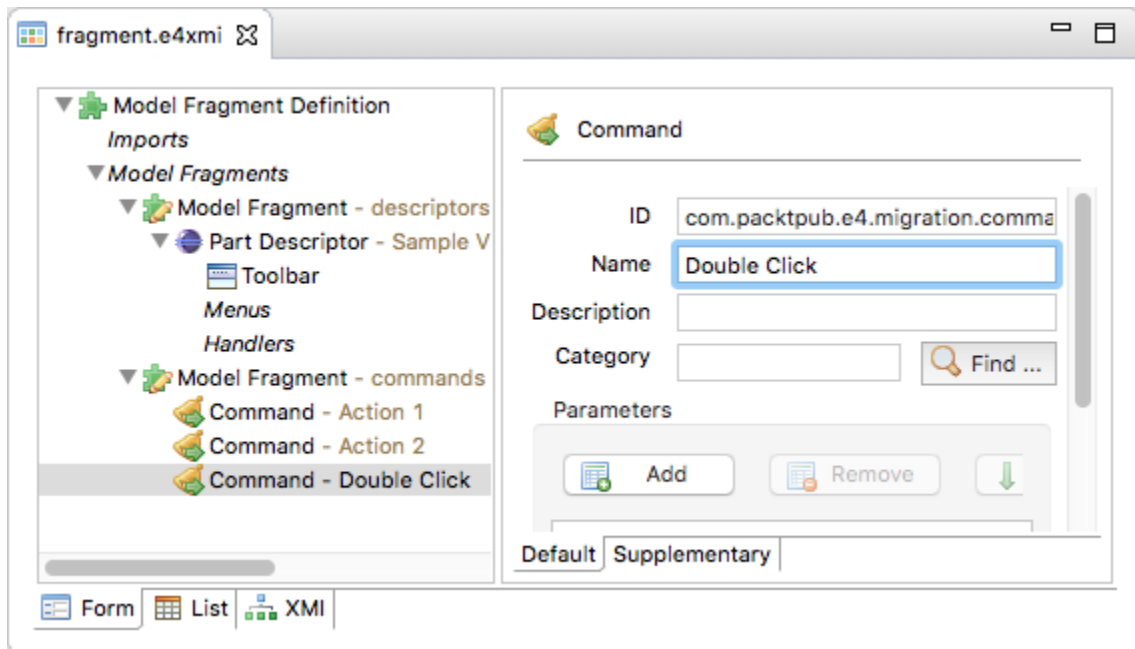
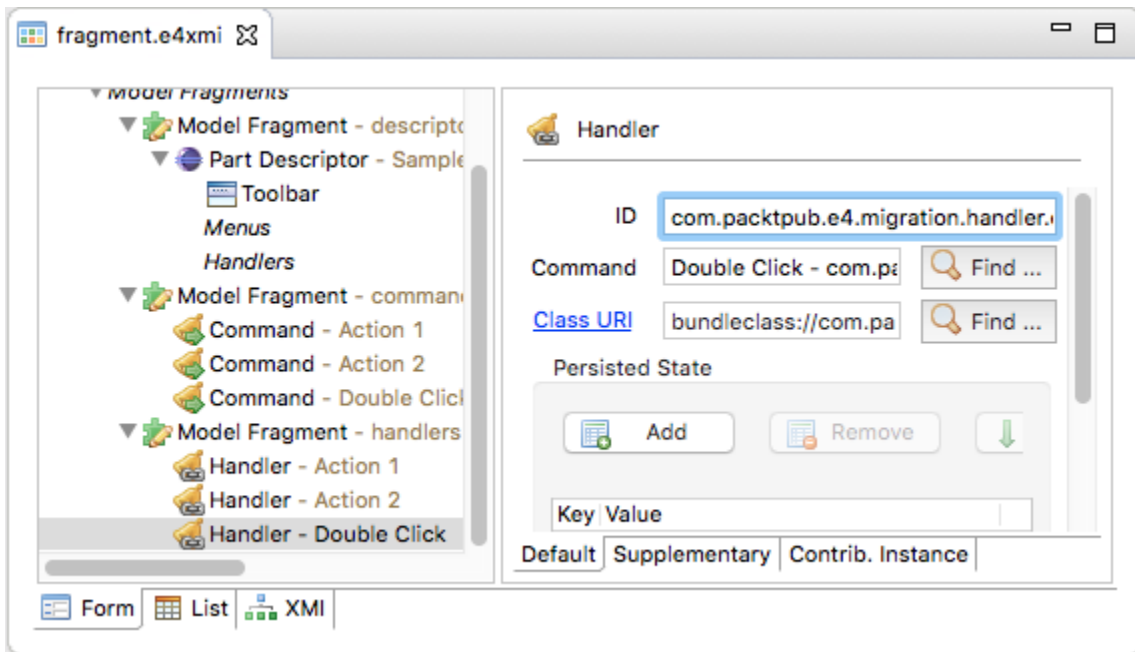
Visible-When Expression: <None>

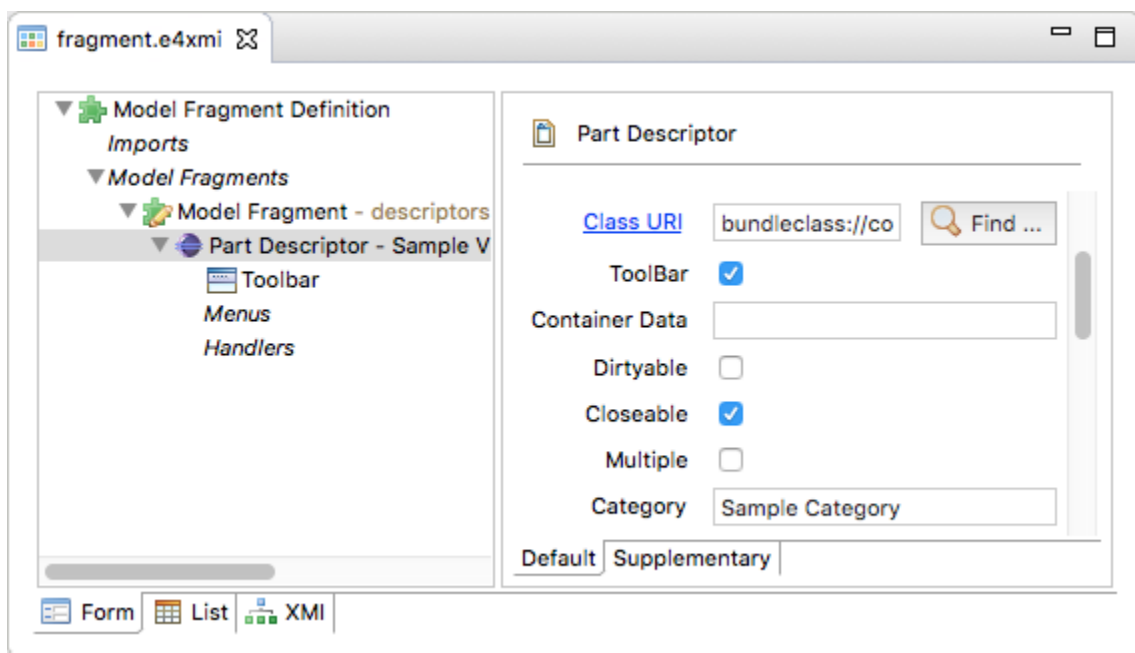
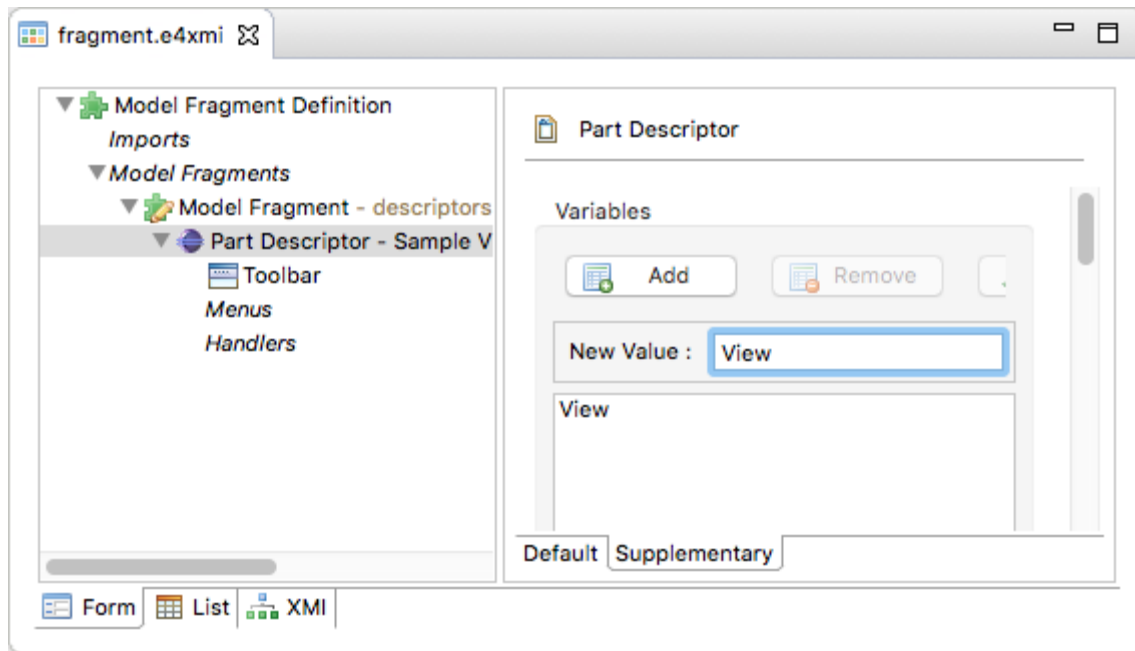
Command: Action 1 - cc

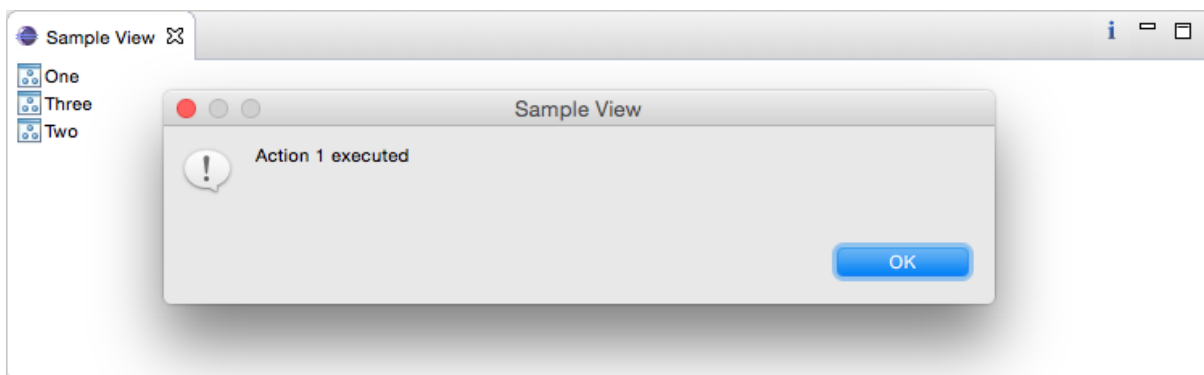
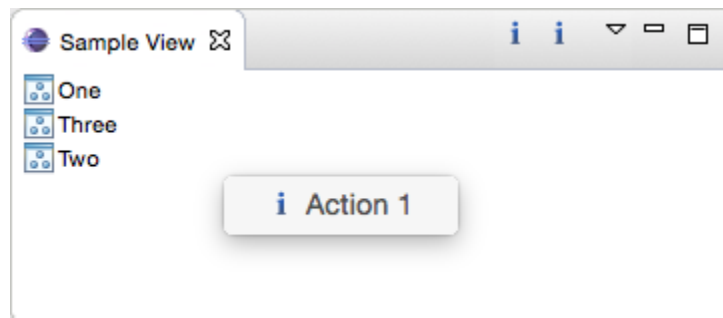
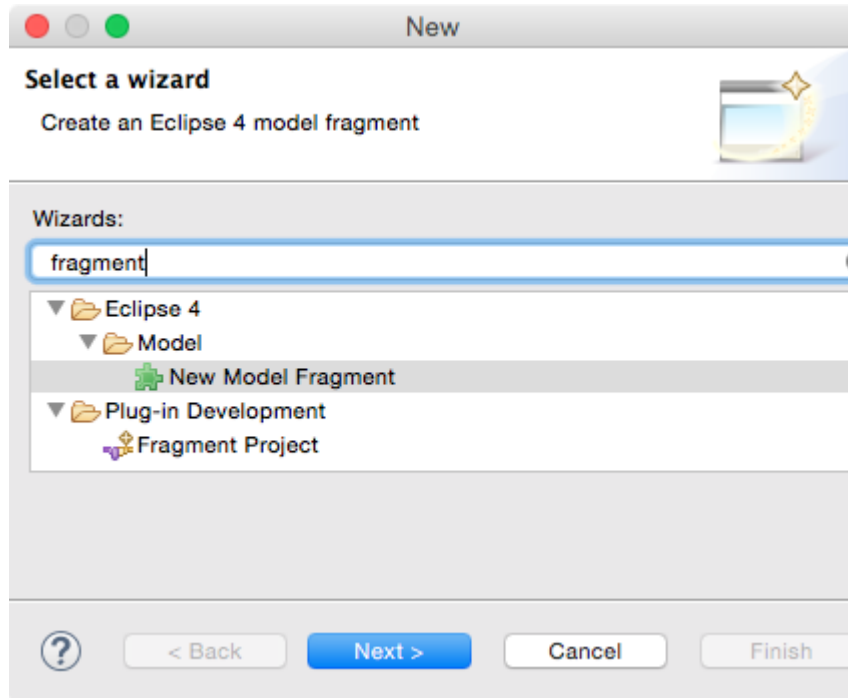
Default | Supplementary

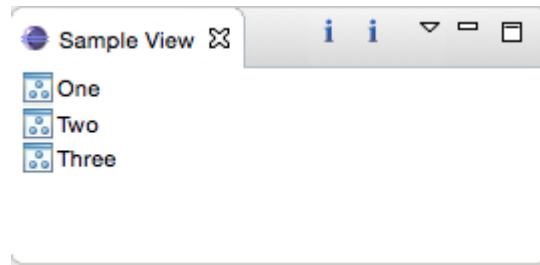
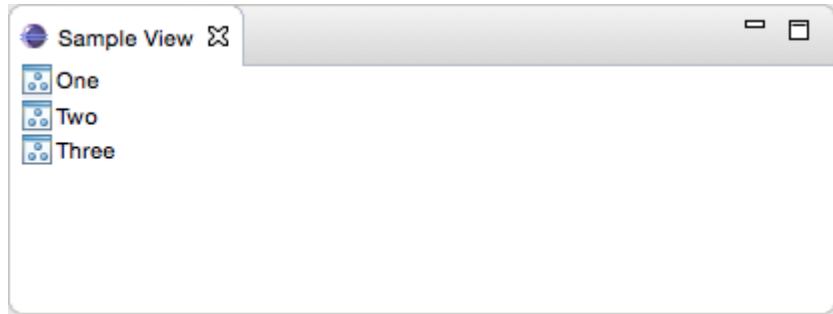
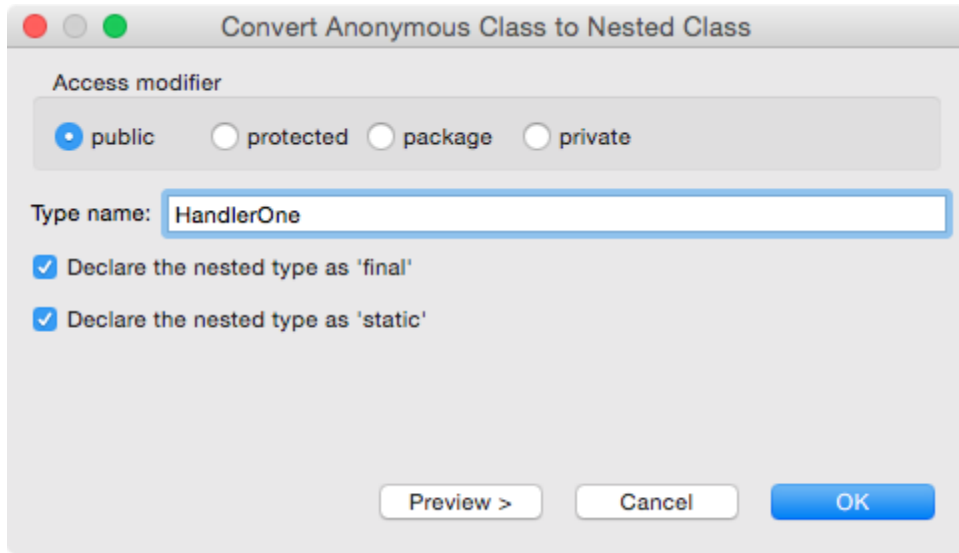
Form | List | XML
















New Extension

Extension Point Selection

Create a new extension from the Sample View template. 

Extension Points Extension Wizards

Extension Point filter:


-  org.eclipse.ui.views
-  org.eclipse.ui.views.properties.tabbed.propertyContributor
-  org.eclipse.ui.views.properties.tabbed.propertySections
-  org.eclipse.ui.views.properties.tabbed.propertyTabs


Show only extension points from the required plug-ins

Extension Point Description: [Views](#)


This extension point is used to define additional views for the workbench. A view is a visual component within a workbench page. It is typically used to navigate a hierarchy of information (like the workspace), open an editor, or display properties for the active editor. The user can make a view visible from the Window > Show View menu or close it from the view local title bar.

Available templates for views:

 Sample View	This template creates a workbench view. The view is contributed to the workbench by creating a category. The view can be opened by selecting Window, Show View and then Other... on the menu bar. The template
---	--

 < Back Next > Cancel Finish

Extension pages hidden

 The Extension and Extension Point pages are currently hidden, would you like to display them now?

No Yes

com.packtpub.e4.migration

Overview

General Information
This section describes general information about this plug-in.

ID:

Version:

Name:

Vendor:

Platform Filter:

Activator:

Activate this plug-in when one of its classes is loaded

This plug-in is a singleton

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.

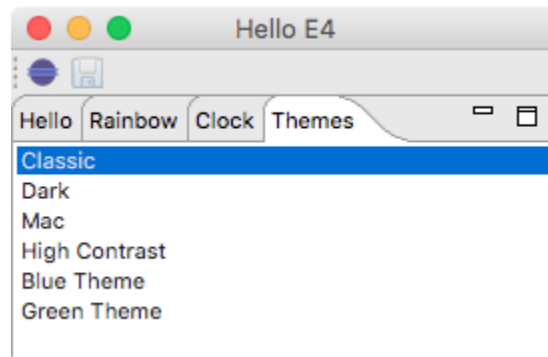
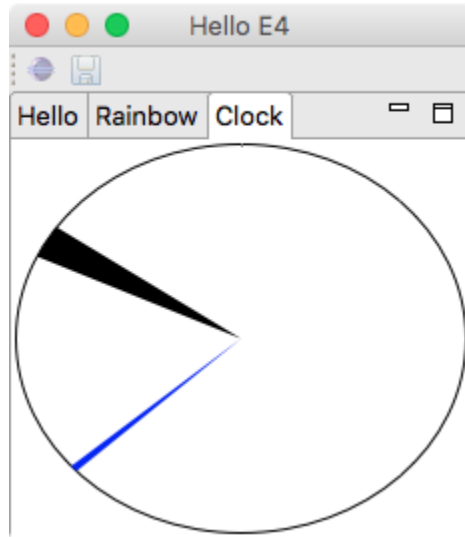
Extension / Extension Point Content

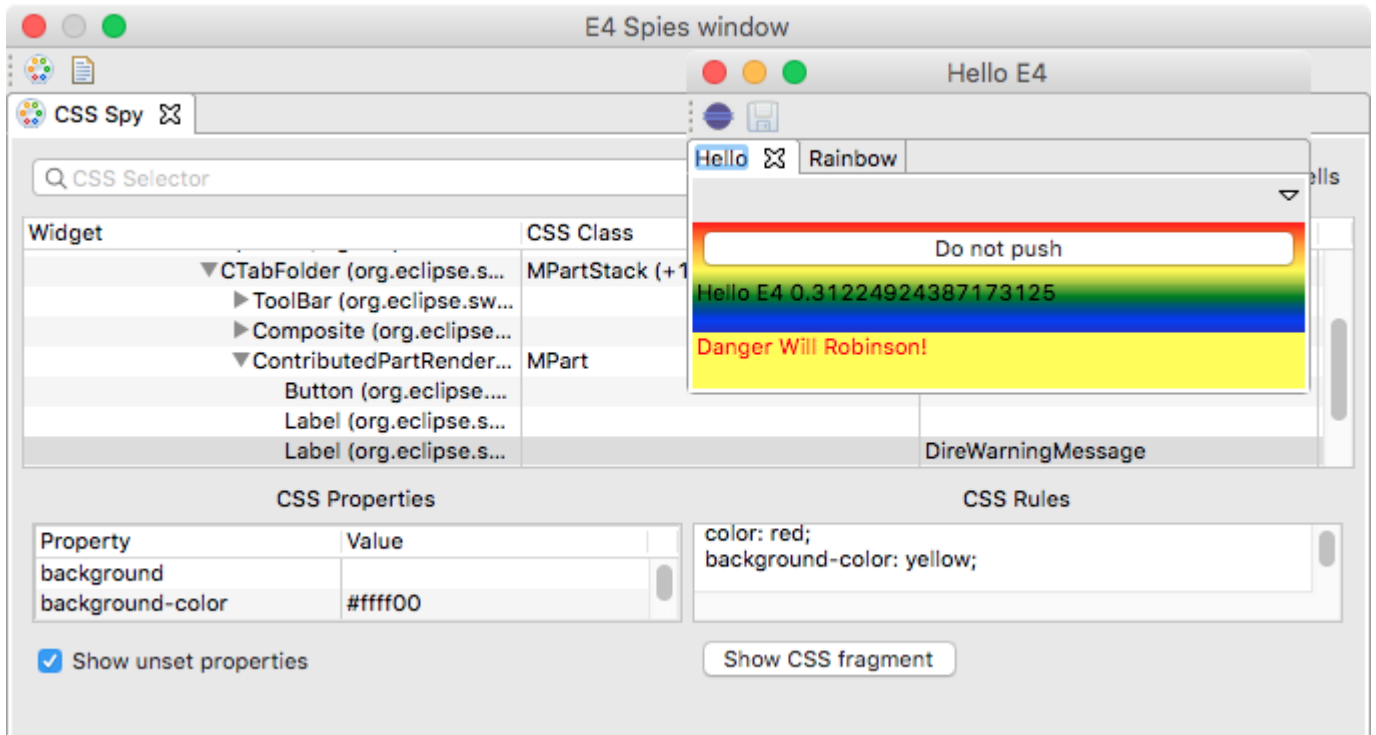
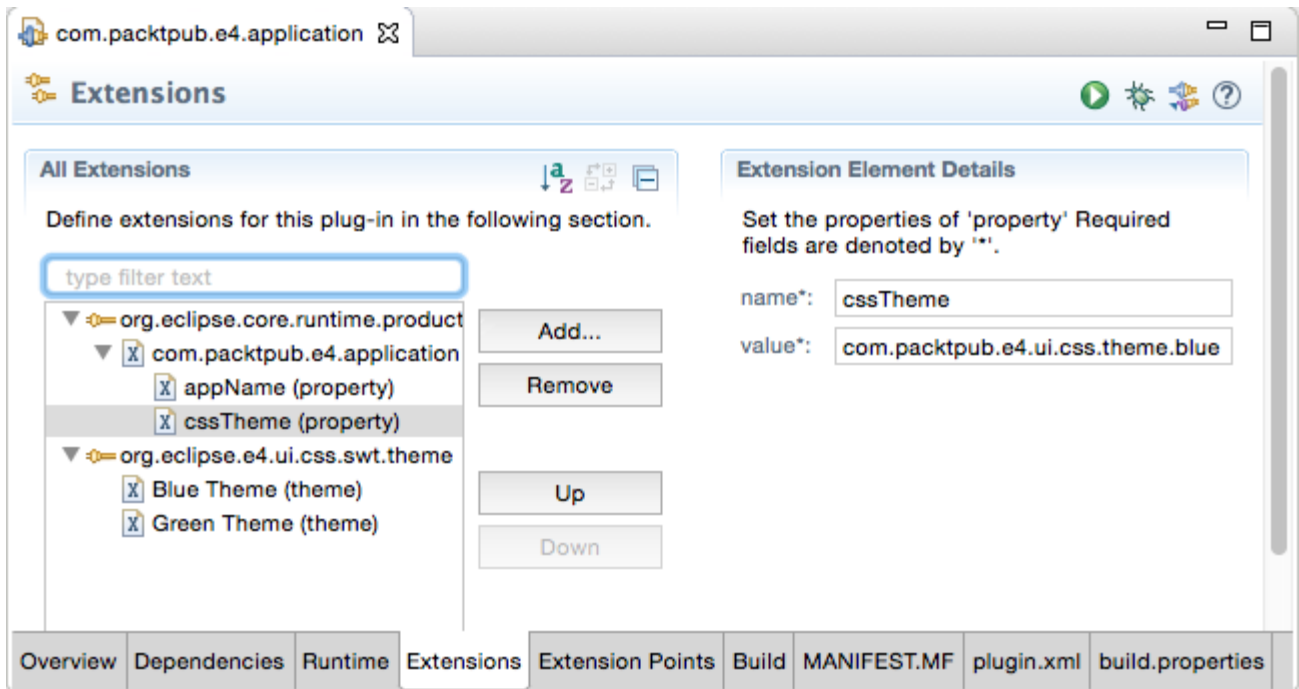
This plug-in may define extensions and extension points:

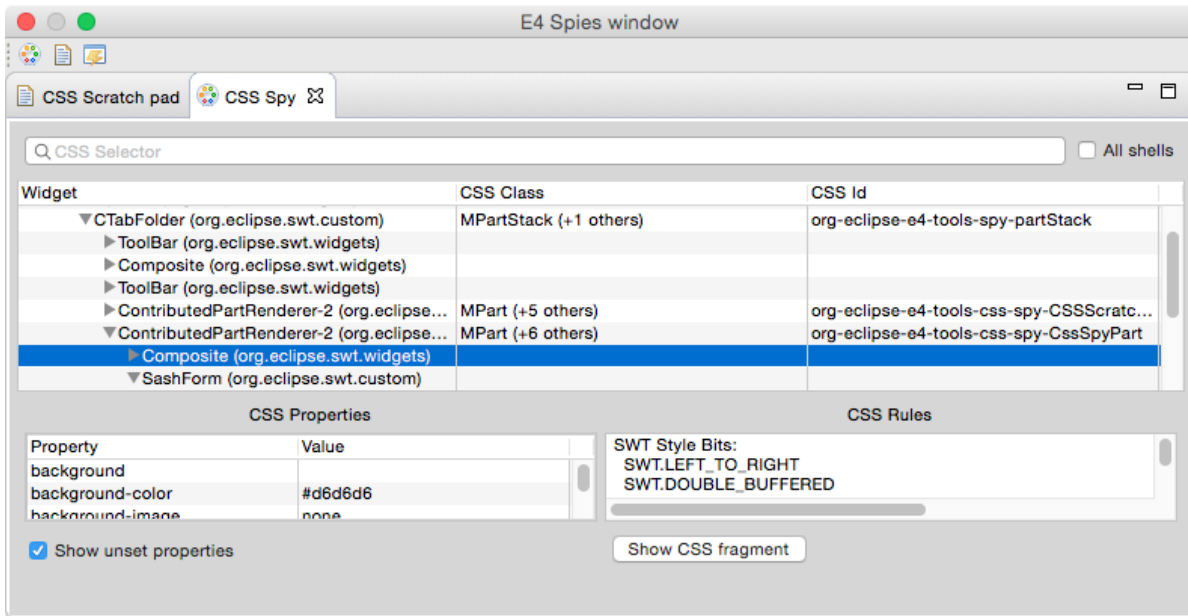
- [Extensions](#): declares contributions this plug-in makes to the platform.
- [Extension Points](#): declares new function points this plug-in adds to the platform.

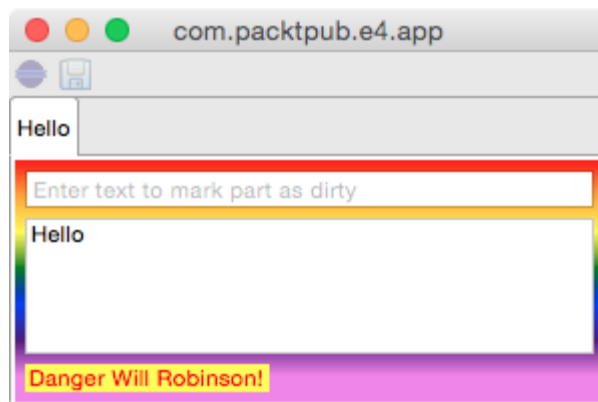
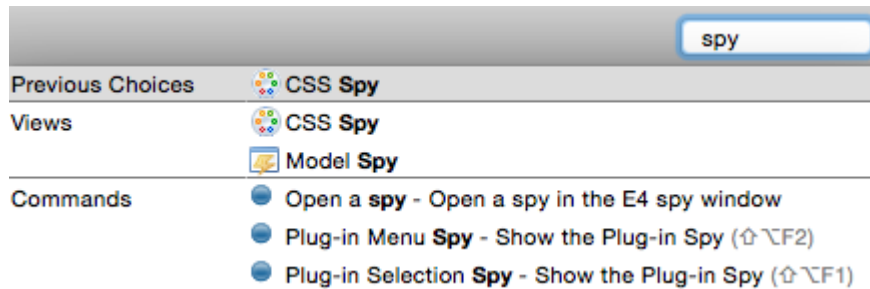
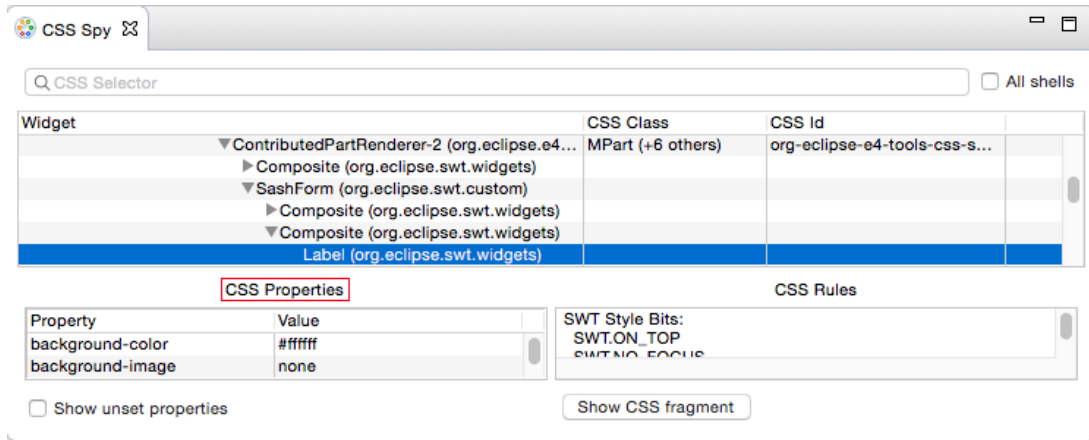
Overview | Dependencies | Runtime | Build | MANIFEST.MF | build.properties

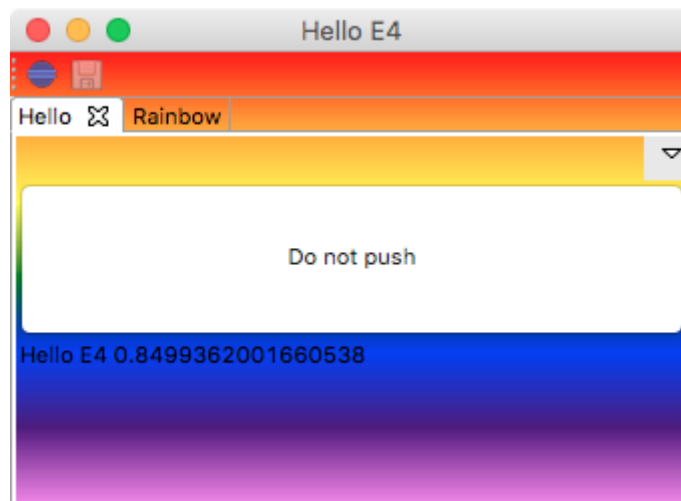
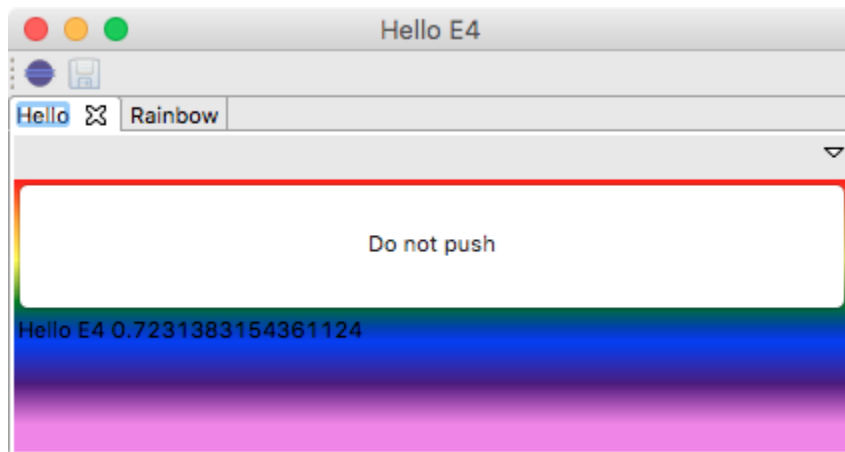
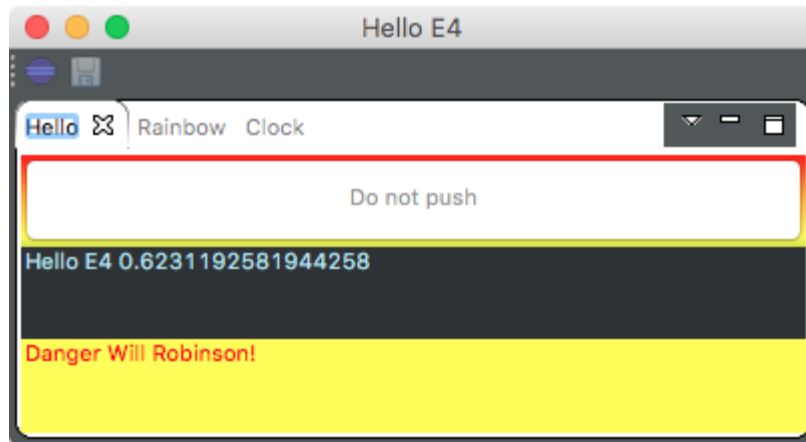
Chapter 9: Styling Eclipse 4 Applications



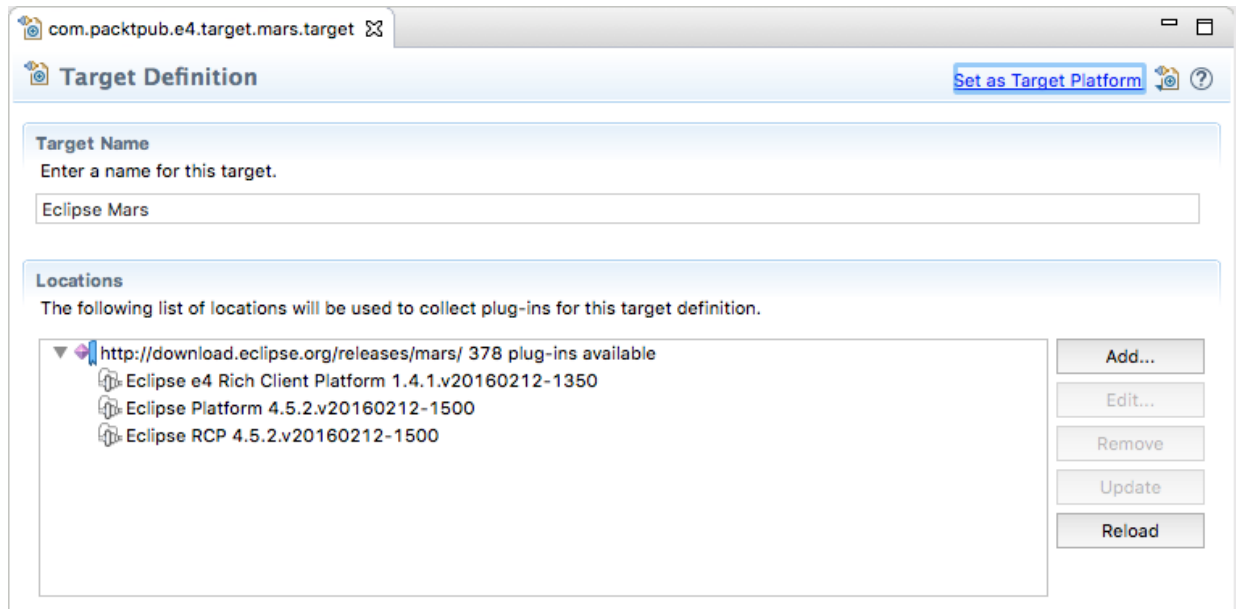


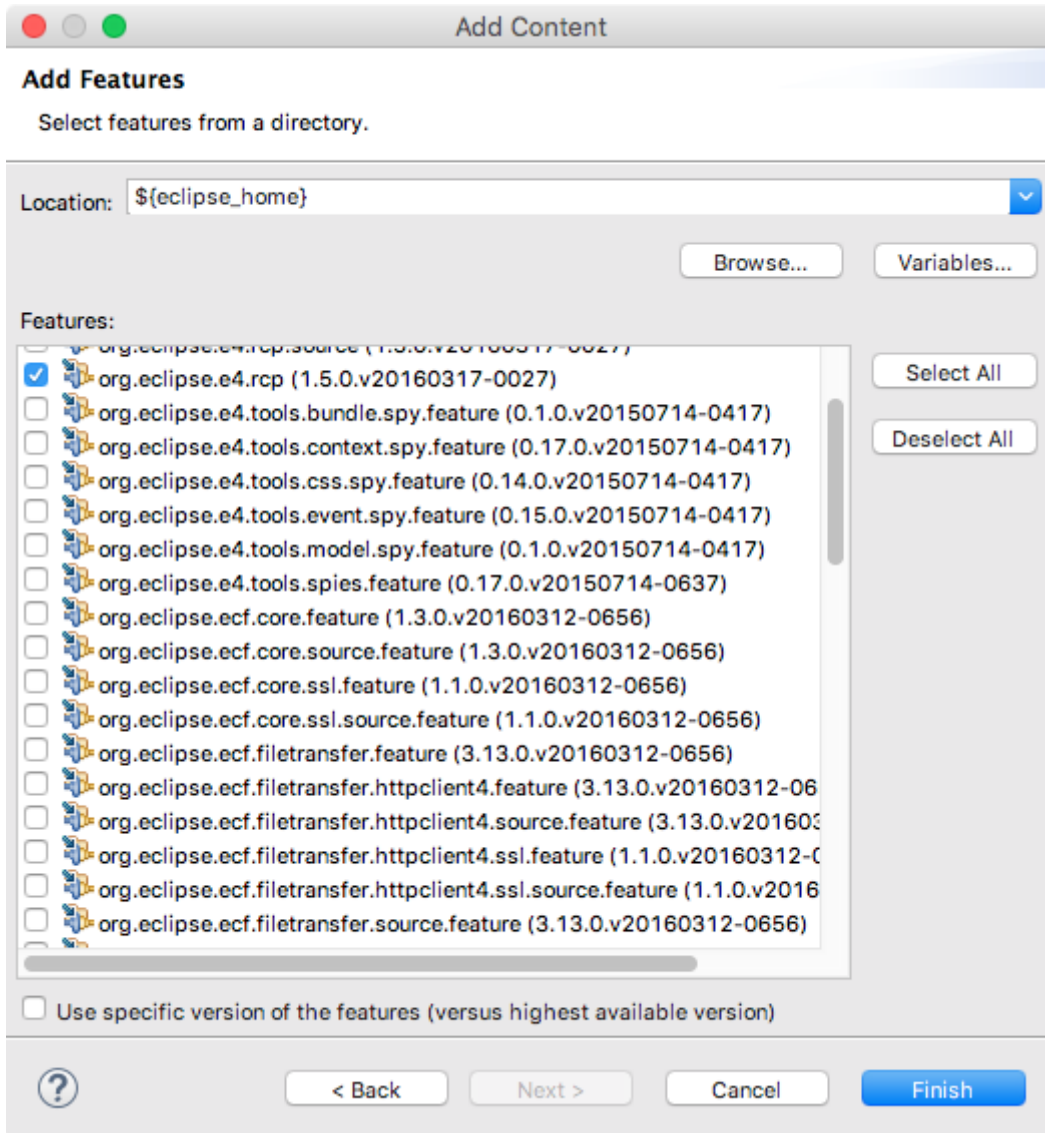






Chapter 10: Creating Features, Update Sites, Applications, and Products





com.packtpub.e4.target.mars.target

Target Definition

[Set as Target Platform](#) ?

Target Name
Enter a name for this target.

Base RCP (Binary Only)

Locations
The following list of locations will be used to collect plug-ins for this target definition.

- org.eclipse.rcp - \${eclipse_home} 6 plug-ins available
 - org.eclipse.help (3.7.0.v20160302-1954)
 - org.eclipse.rcp (4.6.0.v20160317-0200)
 - org.eclipse.ui (3.107.0.v20160108-0627)
 - org.eclipse.ui.cocoa (1.1.100.v20151202-1450)
 - org.eclipse.ui.workbench (3.108.0.v20160311-1856)
 - org.eclipse.update.configurator (3.3.300.v20140518-1928)

Buttons: Add..., Edit..., Remove, Update, Reload

Show location content

Definition | Content | Environment

New Target Definition

Target Definition

Create a new target definition.

Enter or select the parent folder:

com.packtpub.e4.target.mars

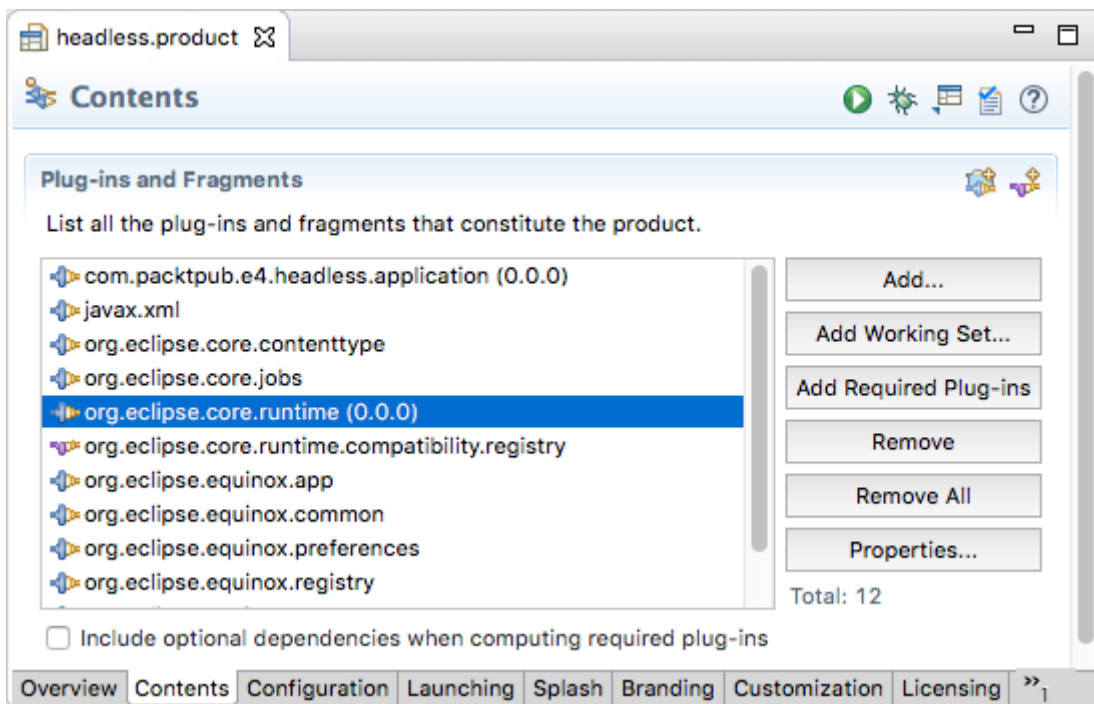
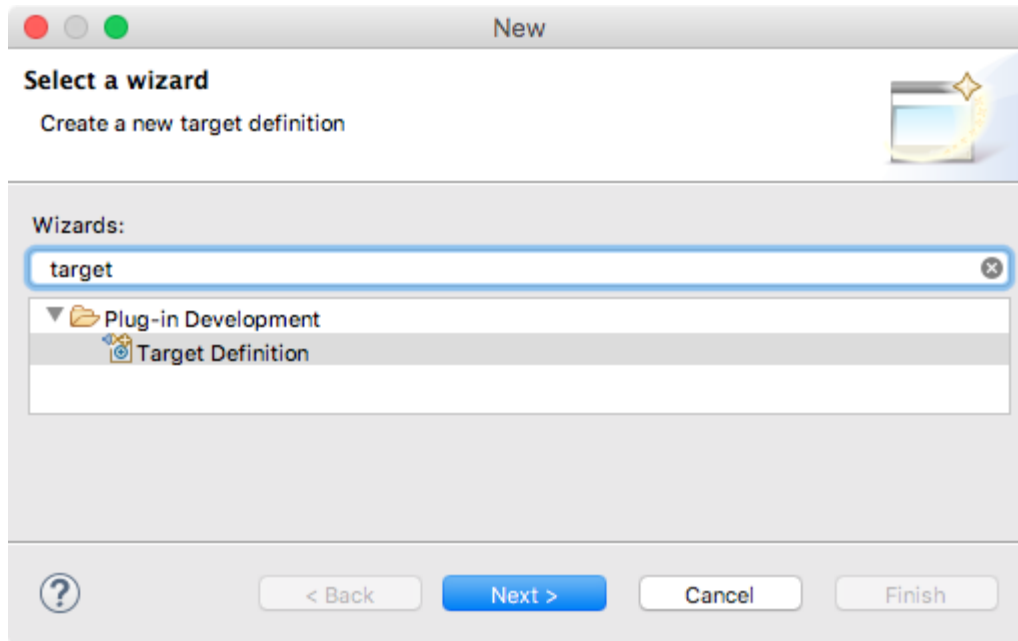
- com.packtpub.e4.application [com.packtpub.e4 master]
- com.packtpub.e4.clock.ui [com.packtpub.e4 master]
- com.packtpub.e4.feature [com.packtpub.e4 master]
- com.packtpub.e4.headless.app [com.packtpub.e4 master]
- com.packtpub.e4.hello.ui [com.packtpub.e4 master]
- com.packtpub.e4.junit.example [com.packtpub.e4 master]
- com.packtpub.e4.junit.plugin [com.packtpub.e4 master]
- com.packtpub.e4.minimark.ui [com.packtpub.e4 master]
- com.packtpub.e4.product [com.packtpub.e4 master]
- com.packtpub.e4.target.mars**
- com.packtpub.e4.update [com.packtpub.e4 master]

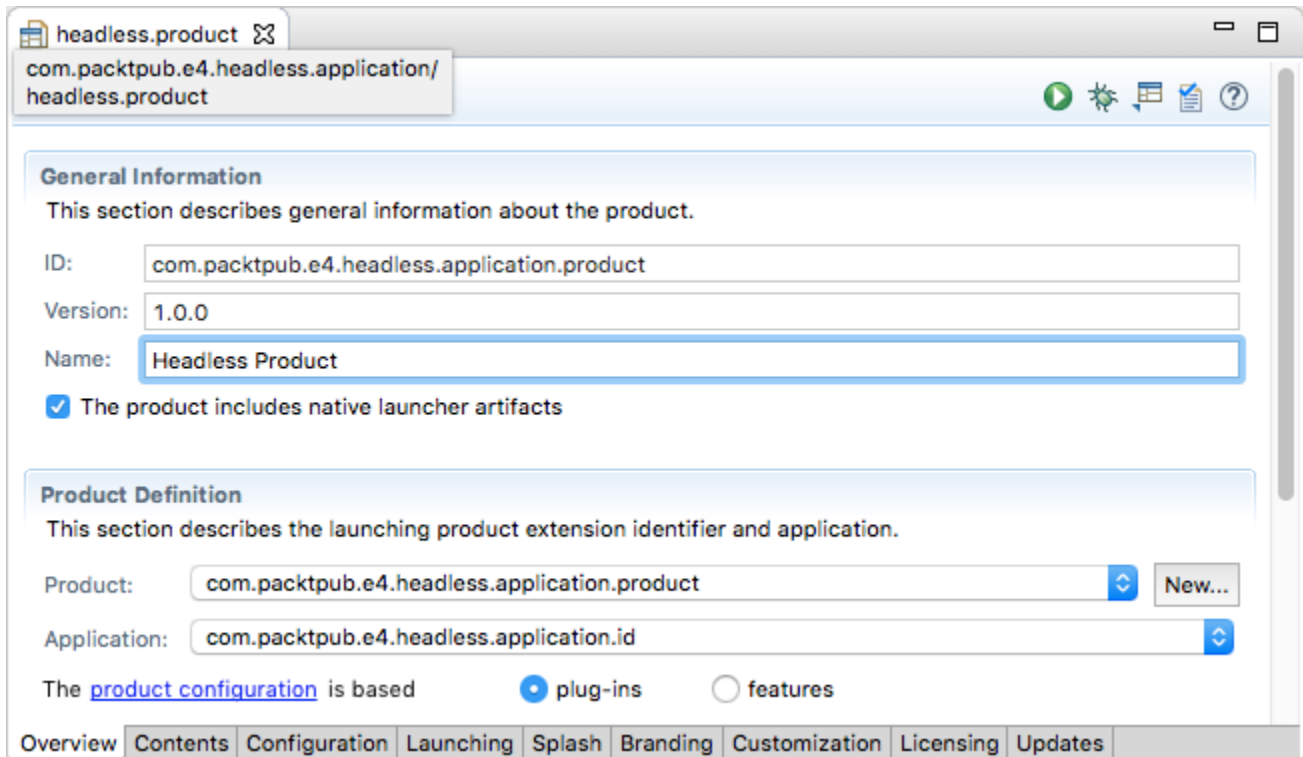
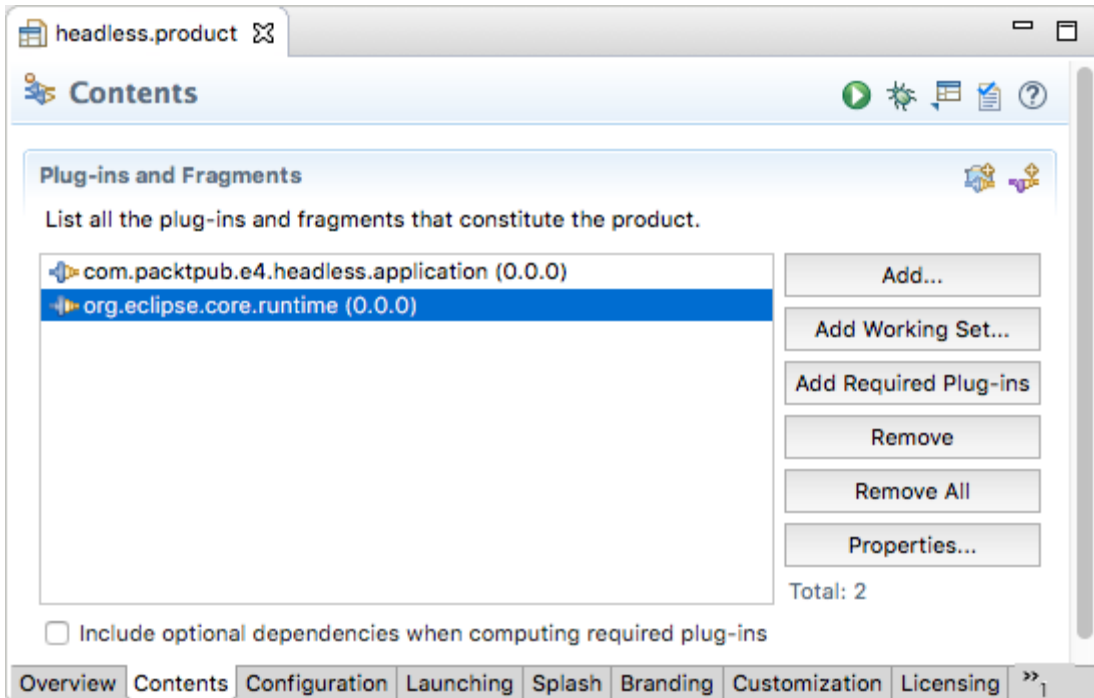
File name: com.packtpub.e4.target.mars.target

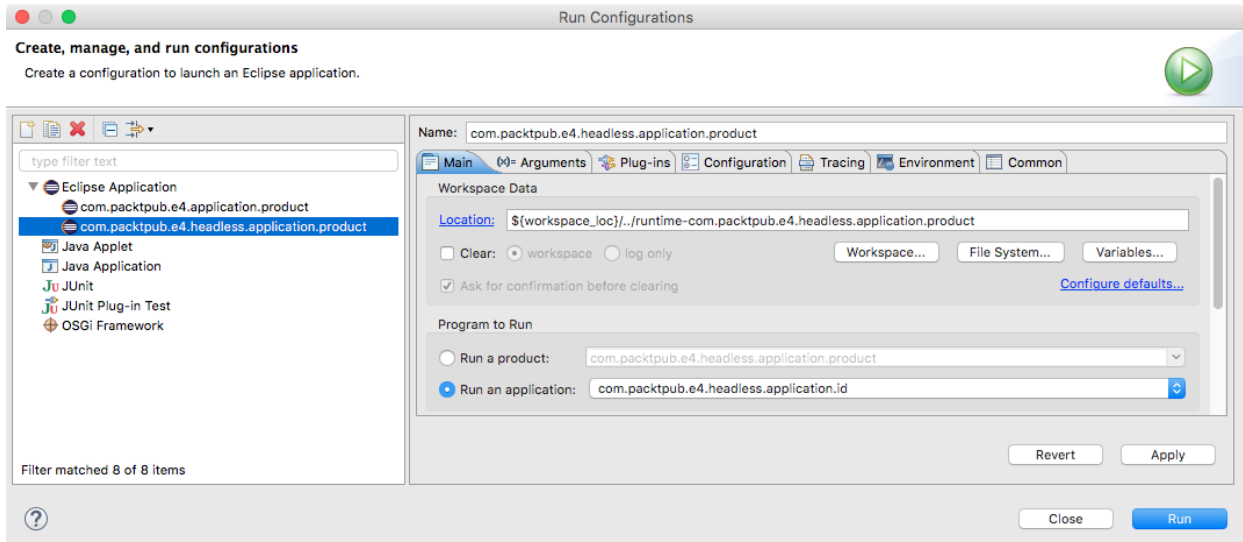
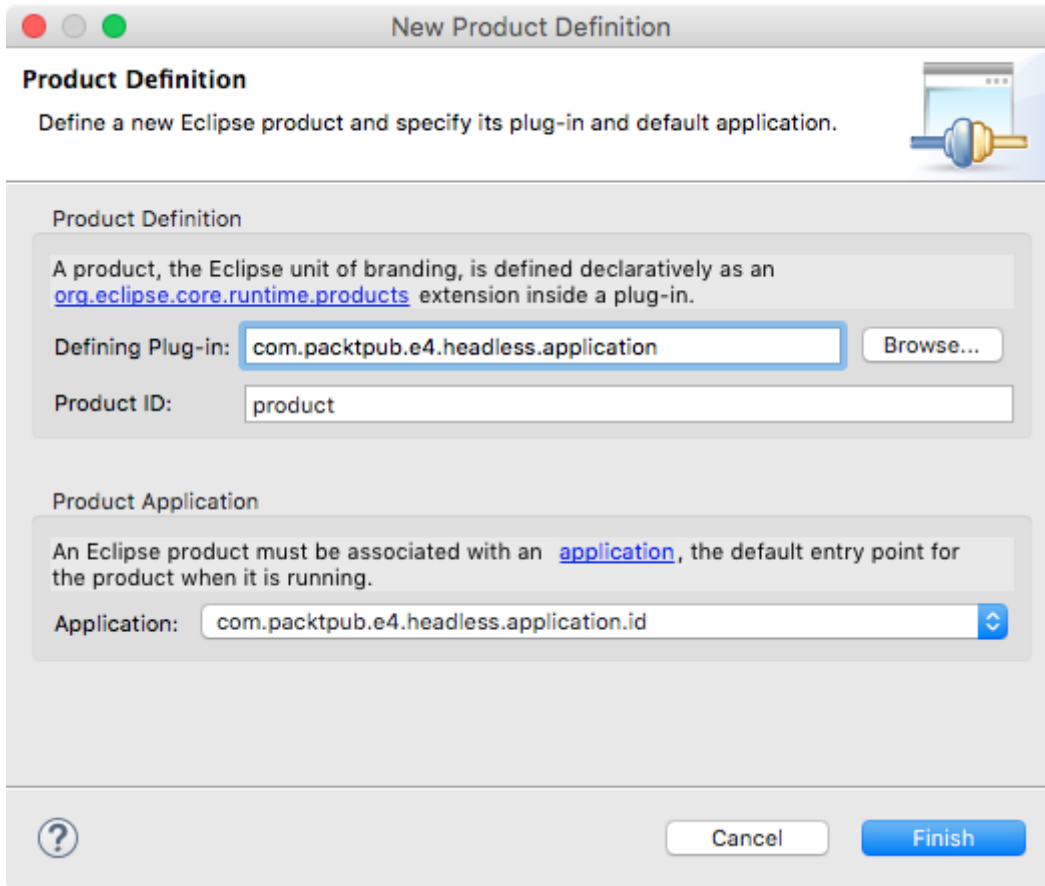
Initialize the target definition with:

- Nothing: Start with an empty target definition
- Default: Default target for the running platform
- Current Target: Copy settings from the current target platform
- Template: Base RCP (Binary Only)

< Back Next > Cancel Finish








New Java Class

Java Class

Create a new Java class.



Source folder:

Package:

Enclosing type:

Name:

Modifiers: public package private protected
 abstract final static

Superclass:

Interfaces:

Which method stubs would you like to create?

public static void main(String[] args)
 Constructors from superclass
 Inherited abstract methods

Do you want to add comments? (Configure templates and default value [here](#))

Generate comments

com.packtpub.e4.headless.application

Extensions

All Extensions

Define extensions for this plug-in in the following section.

type filter text

- org.eclipse.core.runtime.ap
 - (application)
 - Application (run)

Add...
Remove
Up
Down

Extension Element Details

Set the properties of 'run' Required fields are denoted by '*':


class*: Browse...

Overview | Dependencies | Runtime | Extensions | Extension Points | Build | MANIFEST.MF | plugin.xml | build.properties

New Extension


Extension Point Selection

Create a new Applications extension.



Extension Points Extension Wizards

Extension Point filter:

 org.eclipse.core.runtime.applications


Show only extension points from the required plug-ins

Extension Point Description: [Applications](#)

Platform runtime supports plug-ins which would like to declare main entry points. That is, programs which would like to run using the platform runtime but yet control all aspects of execution can declare themselves as an application. Declared applications can be run directly from the main platform launcher by specifying the *-application* argument where the parameter is the id of an extension supplied to the applications extension point described here. This application is instantiated and

Available templates for applications:


--	--

 < Back Next > Cancel Finish

New Plug-in Project

Content

Enter the data required to generate the plug-in.



Properties

ID:

Version:

Name:

Vendor:

Execution Environment:

Options

Generate an activator, a Java class that controls the plug-in's life cycle

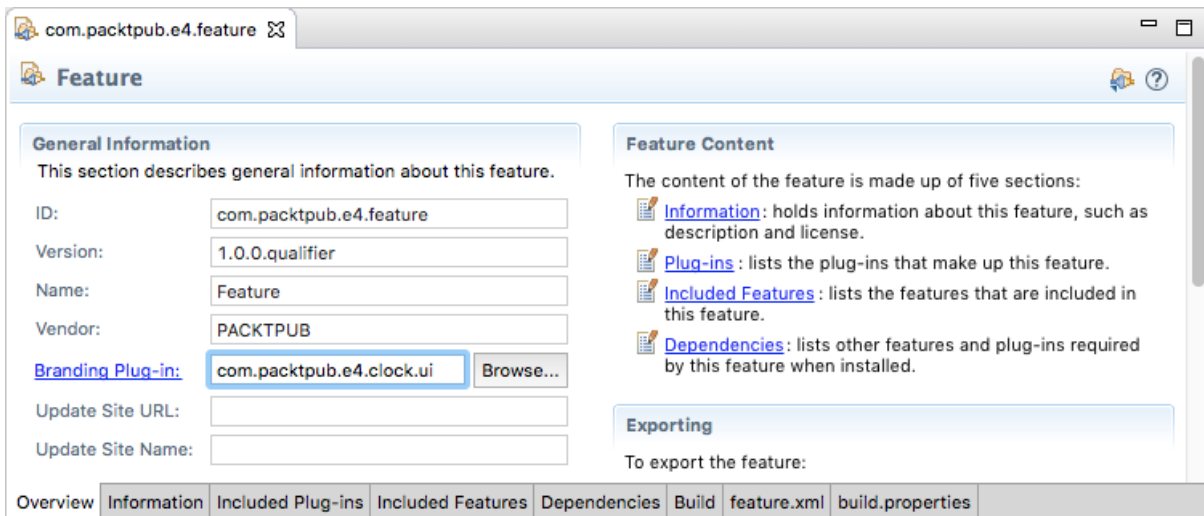
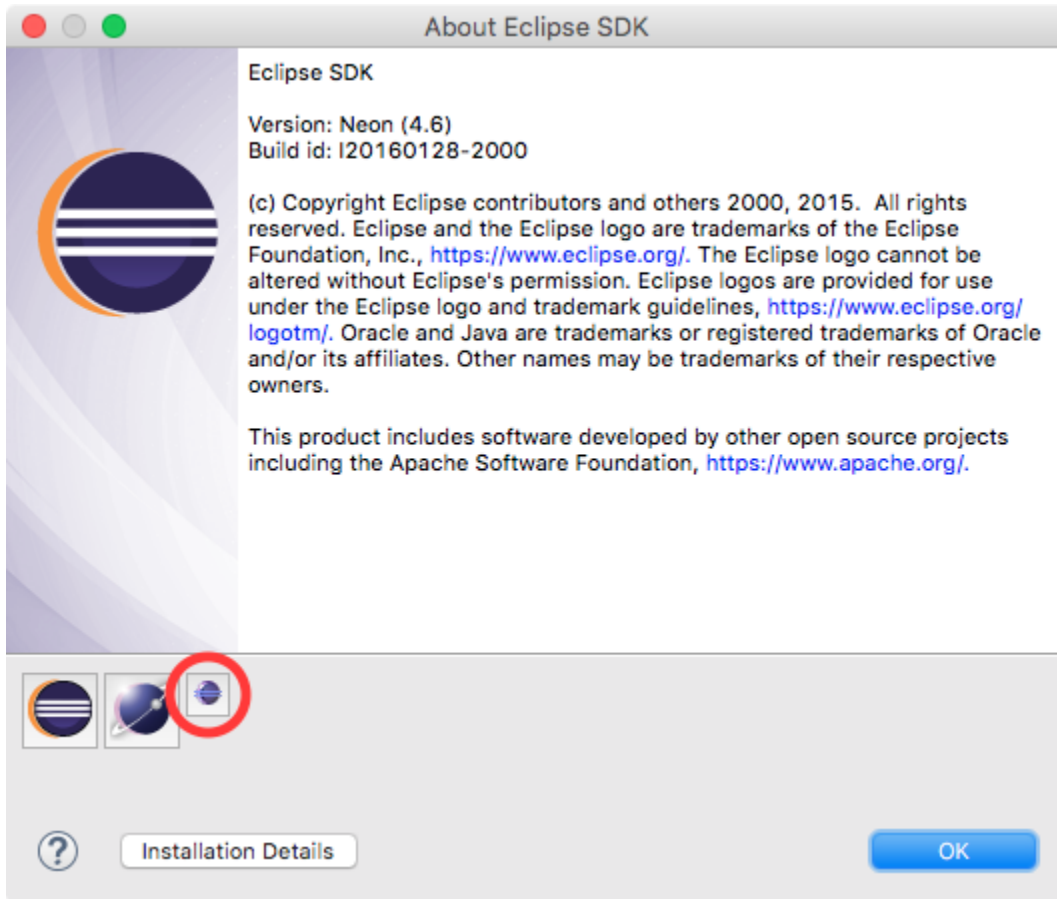
Activator:

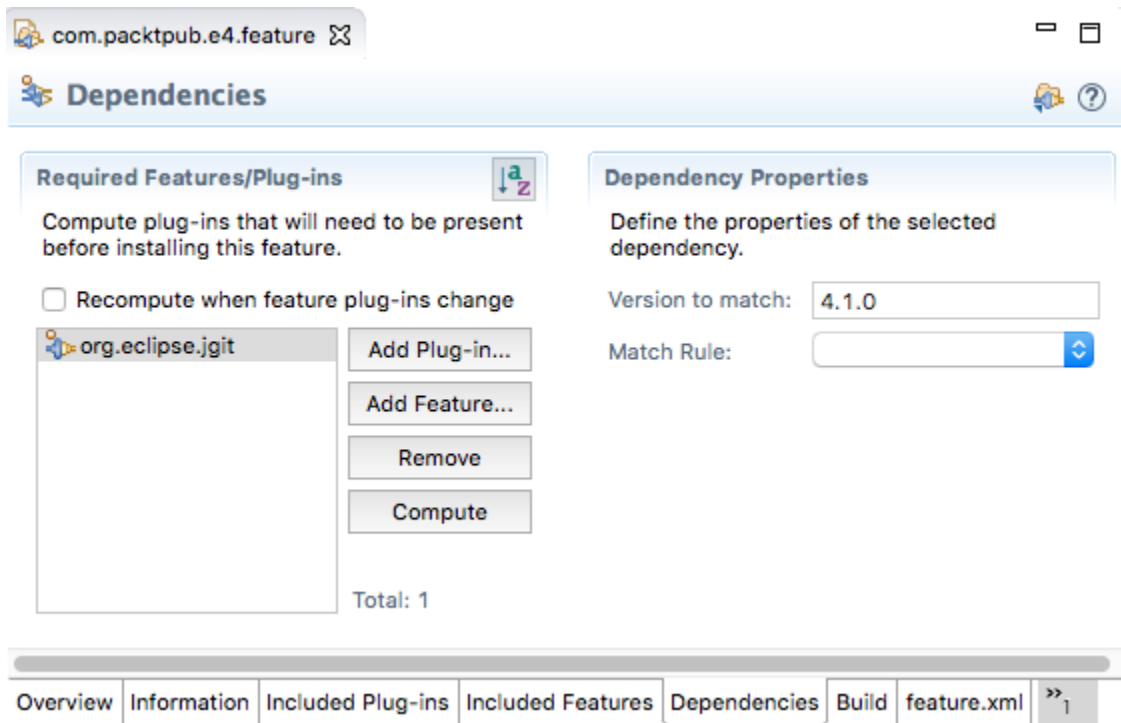
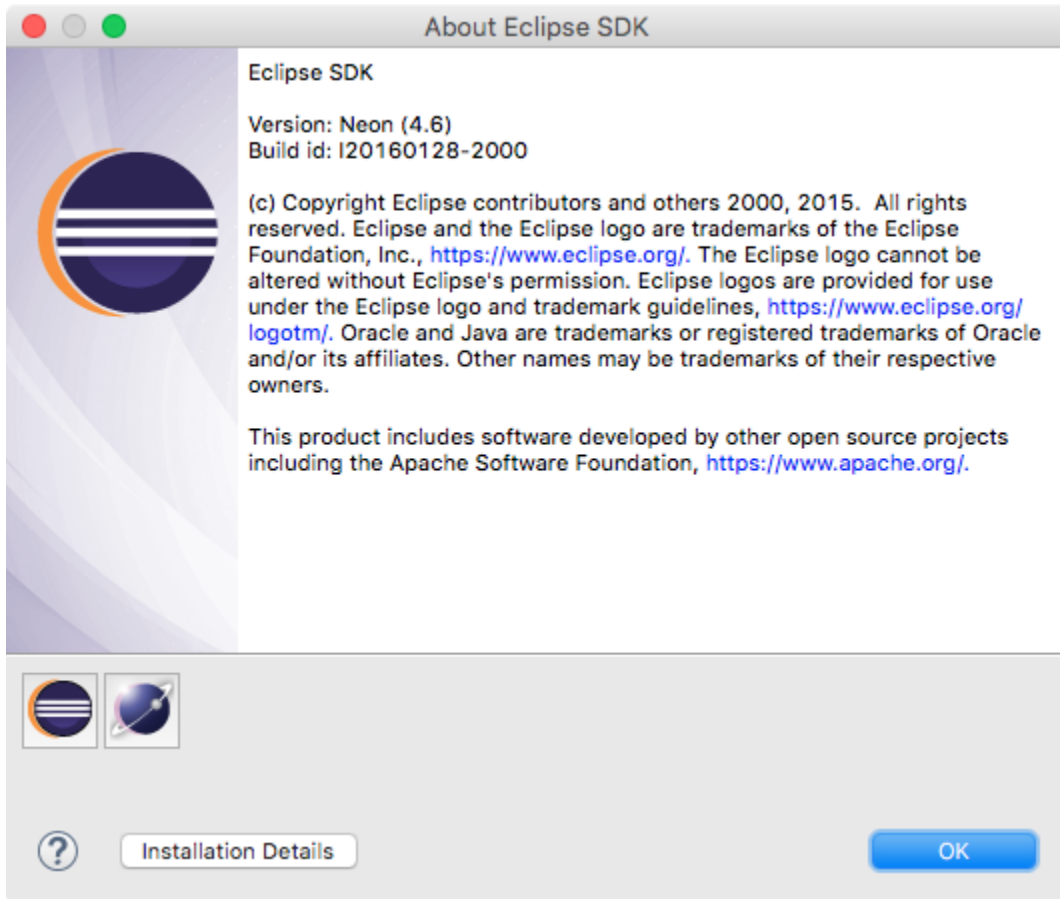
This plug-in will make contributions to the UI

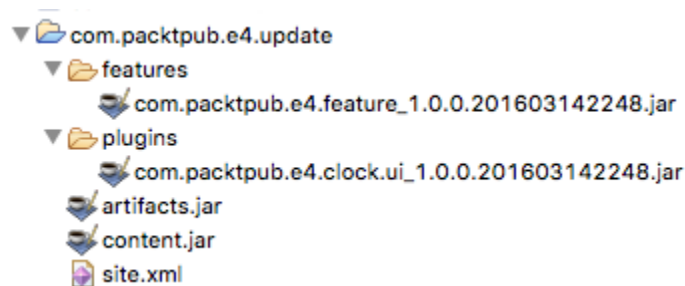
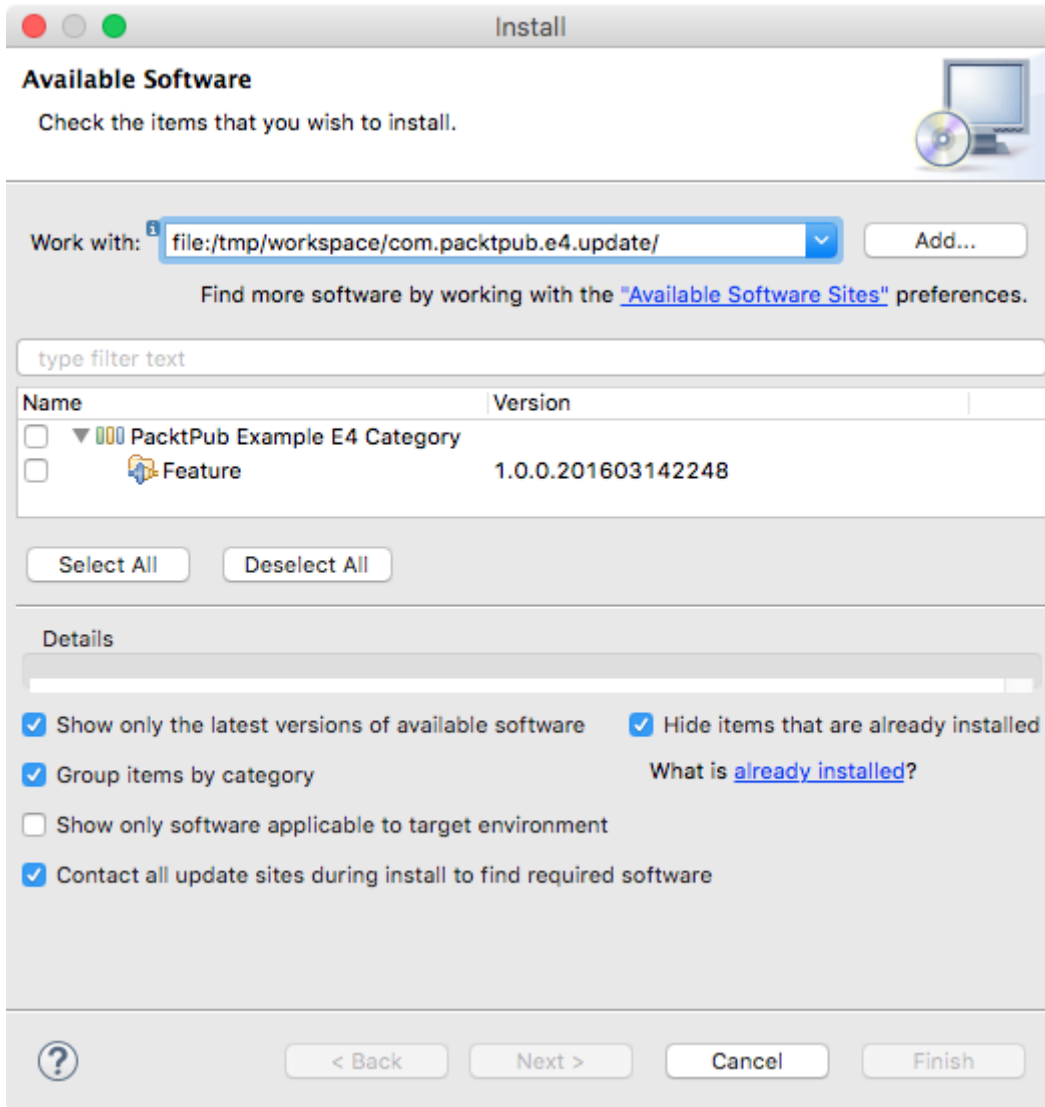
Enable API analysis

Rich Client Application

Would you like to create a rich client application? Yes No







site.xml

Update Site Map

Managing the Site

1. Add the features to be published on the site.
2. For easier browsing of the site, categorize the features by dragging.
3. Build the features.

- com.packtpub.e4.category
- com.packtpub.e4.feature

New Category

Add Feature...

Synchronize...

Build

Build All

Feature Properties

Properties for the selected feature. "*" denotes a required field.

URL*:

This feature is a patch for another feature

Feature Environments

Specify the environments in which this feature can be installed. Leave blank if the feature does not contain platform-specific code.

Operating Systems:

Window Systems:

Site Map Archives site.xml

site.xml

Update Site Map

Managing the Site

1. Add the features to be published on the site.
2. For easier browsing of the site, categorize the features by dragging.
3. Build the features.

- com.packtpub.e4.category

New Category

Add Feature...

Synchronize...

Build

Build All

Category Properties

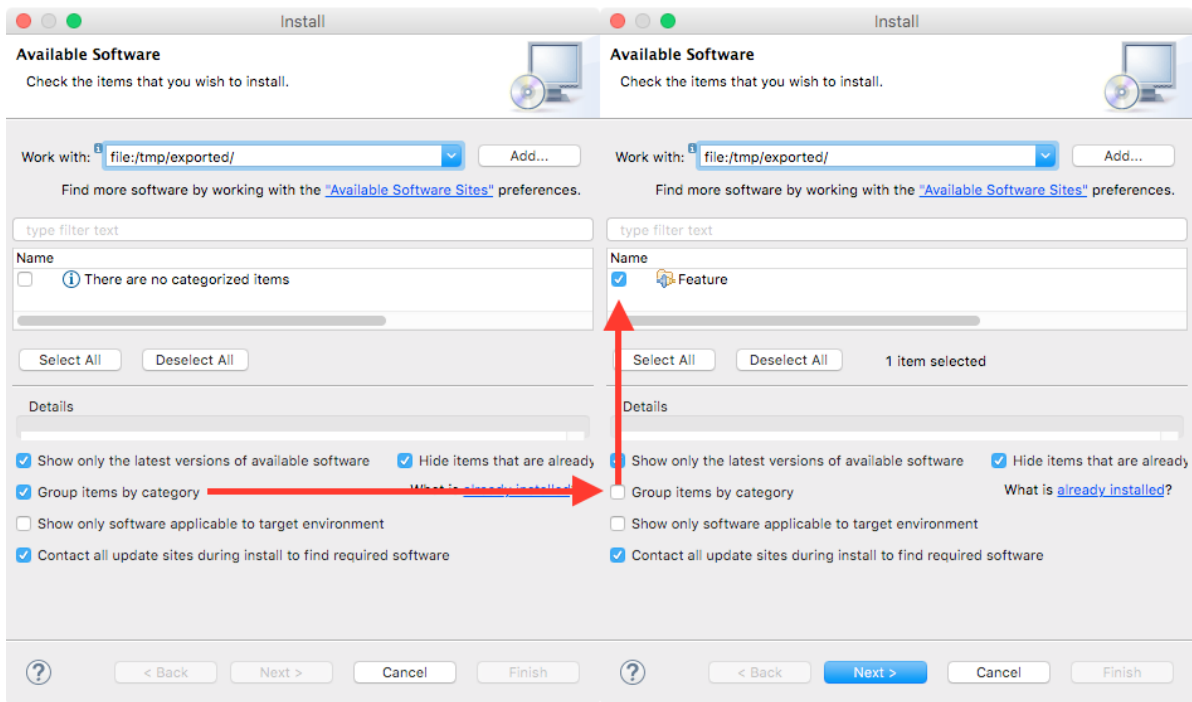
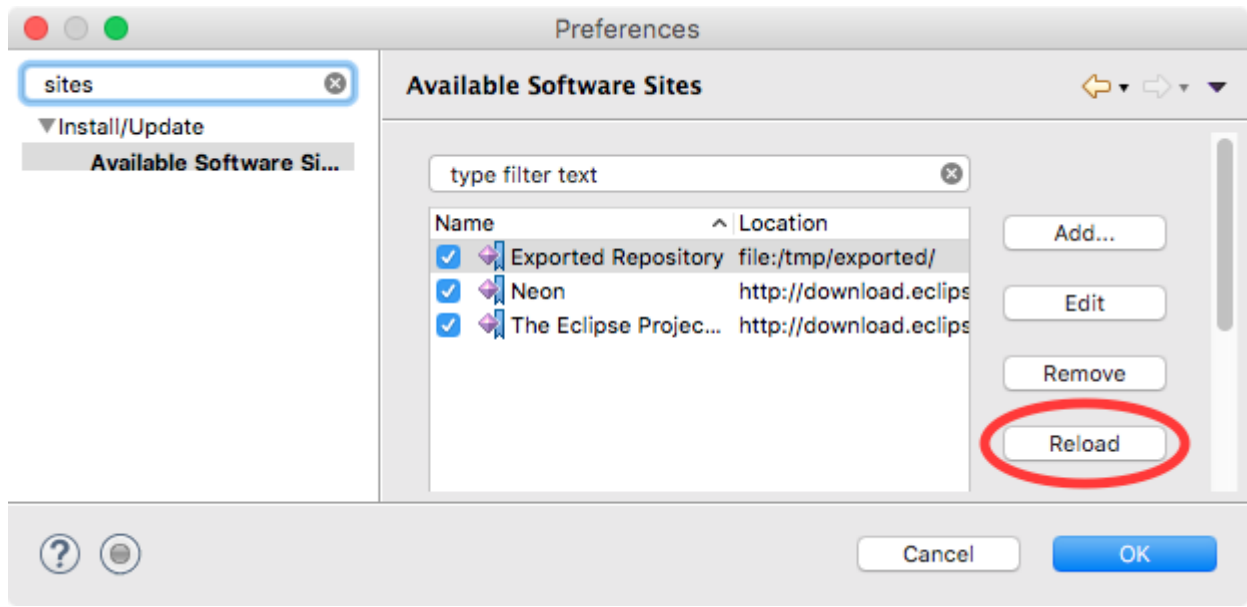
Provide a unique id, a name and a description for each category. "*" denotes a required field.

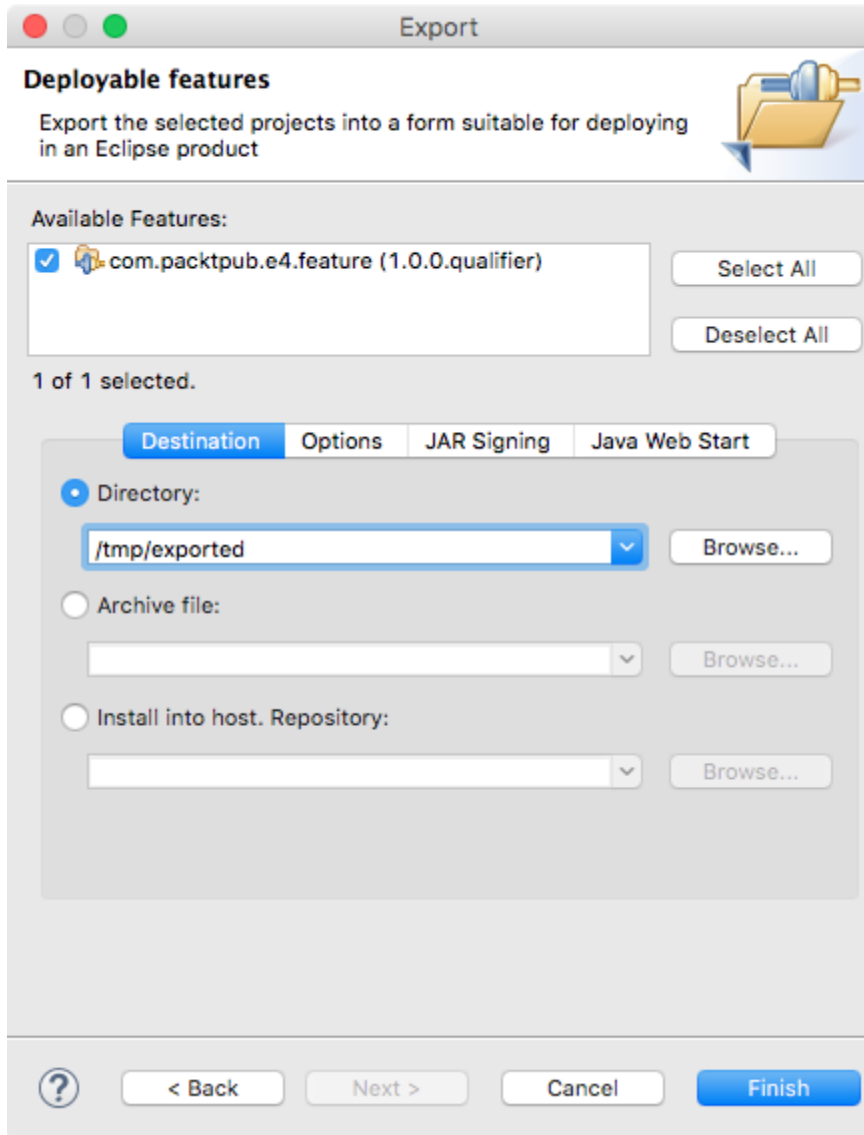
ID*:

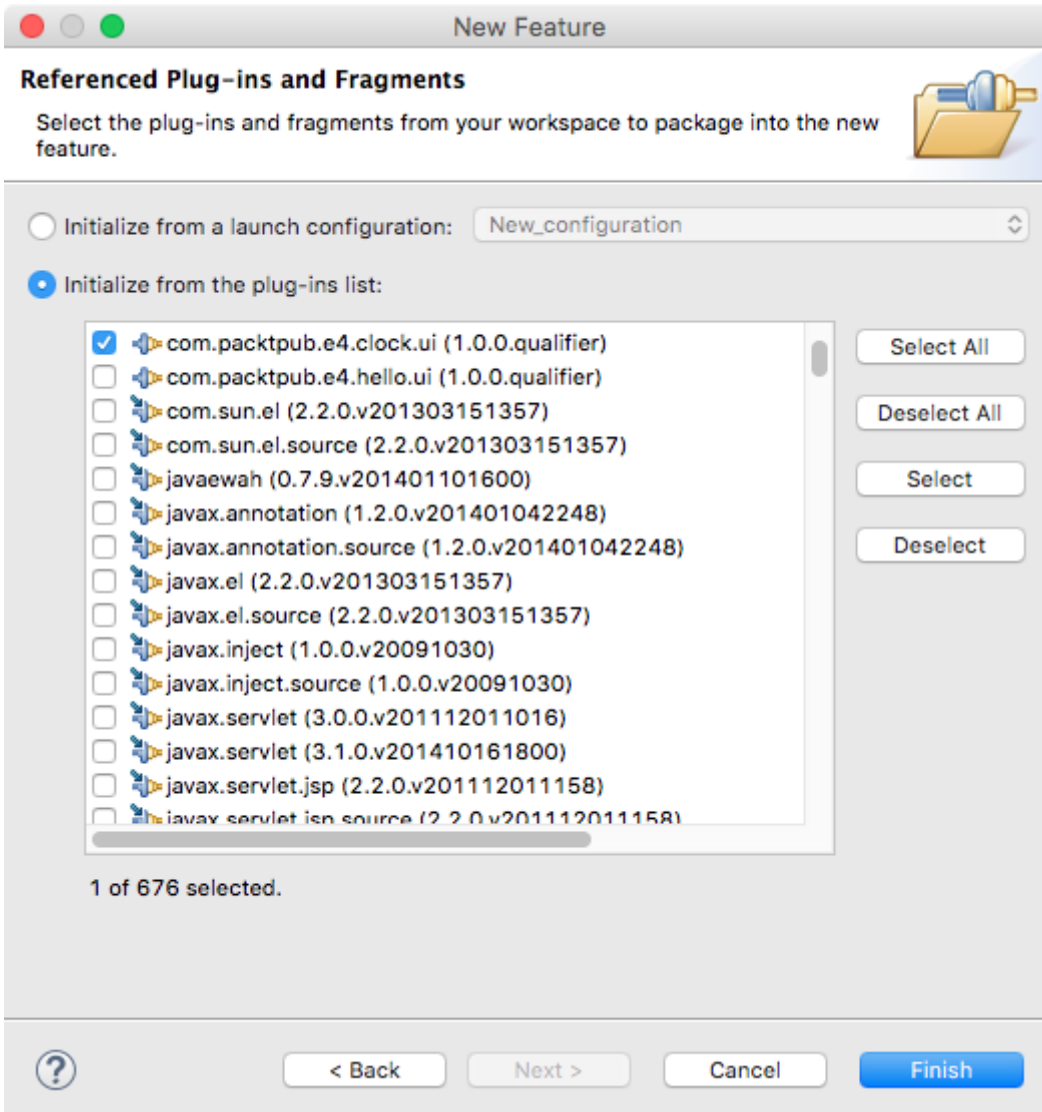
Name*:

Description:

Site Map Archives site.xml








New Feature

Feature Properties

Define properties that will be placed in the feature.xml file



Project name:

Use default location

Location:

Feature properties

Feature ID:	<input type="text" value="com.packtpub.e4.feature"/>
Feature Name:	<input type="text" value="Feature"/>
Feature Version:	<input type="text" value="1.0.0.qualifier"/>
Feature Vendor:	<input type="text" value="PACKTPUB"/>
Install Handler Library:	<input type="text"/>

Chapter 11: Automated Testing of Plug-ins

```
UITest.java
20 @RunWith(SWTBotJUnit4ClassRunner.class)
21 public class UITest {
22     @Test
23     public void testUI() {
24         SWTWorkbenchBot bot = new SWTWorkbenchBot();
25         SWTBotShell[] shells = bot.shells();
26         boolean found = false;
27         for (int i = 0; i < shells.length && !found; i++) {
28             if (shells[i].isVisible()) {
29                 if (shells[i].getText().contains("Eclipse")) {
30                     found = true;
31                 }
32             }
33         }
34         assertTrue(found);

```

JUnit
Finished after 2.408 seconds
Runs: 1/1 Errors: 0 Failures: 0
com.packtpub.e4.junit.plugin.UITest [Runner: JUnit 4] (2.366 s) Failure Trace
testUI (2.366 s)

Edit Software Site

Select content from a software site to be added to your target

Work with: Eclipse Mars repository - <http://download.eclipse.org/releases/mars/> Add...

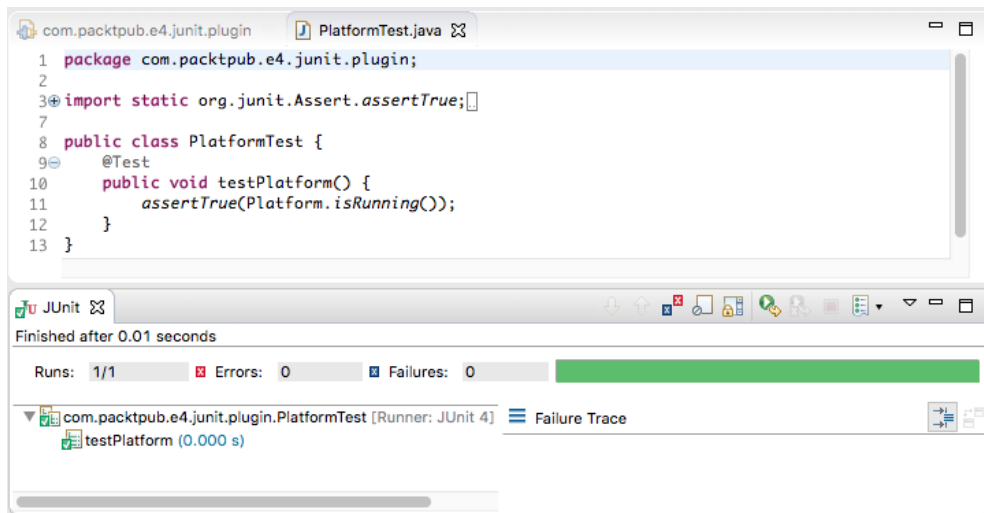
[Work with the list of software sites](#)

swtbot

Name	Version
Testing	
<input checked="" type="checkbox"/> SWTBot for Eclipse Testing	2.3.0.201506081302
<input checked="" type="checkbox"/> SWTBot for GEF Testing	2.3.0.201506081302
<input checked="" type="checkbox"/> SWTBot for SWT Testing	2.3.0.201506081302
<input checked="" type="checkbox"/> SWTBot IDE Features	2.3.0.201506081302

Select All Deselect All 6 items selected

Cancel Finish



Install

Available Software

Check the items that you wish to install.

Work with: Mars - <http://download.eclipse.org/releases/mars> Add...

Find more software by working with the ["Available Software Sites"](#) preferences.

swtbot

Name	Version
Testing	
<input checked="" type="checkbox"/> SWTBot for Eclipse Testing	2.3.0.201506081302
<input type="checkbox"/> SWTBot for GEF Testing	2.3.0.201506081302
<input checked="" type="checkbox"/> SWTBot for SWT Testing	2.3.0.201506081302
<input checked="" type="checkbox"/> SWTBot IDE Features	2.3.0.201506081302

Select All Deselect All 3 items selected

Details

Show only the latest versions of available software Hide items that are already installed

Group items by category What is [already installed](#)?

Show only software applicable to target environment

Contact all update sites during install to find required software

? < Back Next > Cancel Finish

```
MathUtil.java
1 package com.packtpub.e4.junit.sample;
2
3 public class MathUtil {
4     public static boolean isOdd(int value) {
5         return value % 2 == 1;
6     }
7 }
```

```
ExampleTest.java
1 package com.packtpub.e4.junit.sample;
2
3 import static org.junit.Assert.*;
4
5
6
7 public class ExampleTest {
8     @Test
9     public void testOdd() {
10        assertTrue(MathUtil.isOdd(3));
11        assertFalse(MathUtil.isOdd(2));
12    }
13 }
```

JUnit

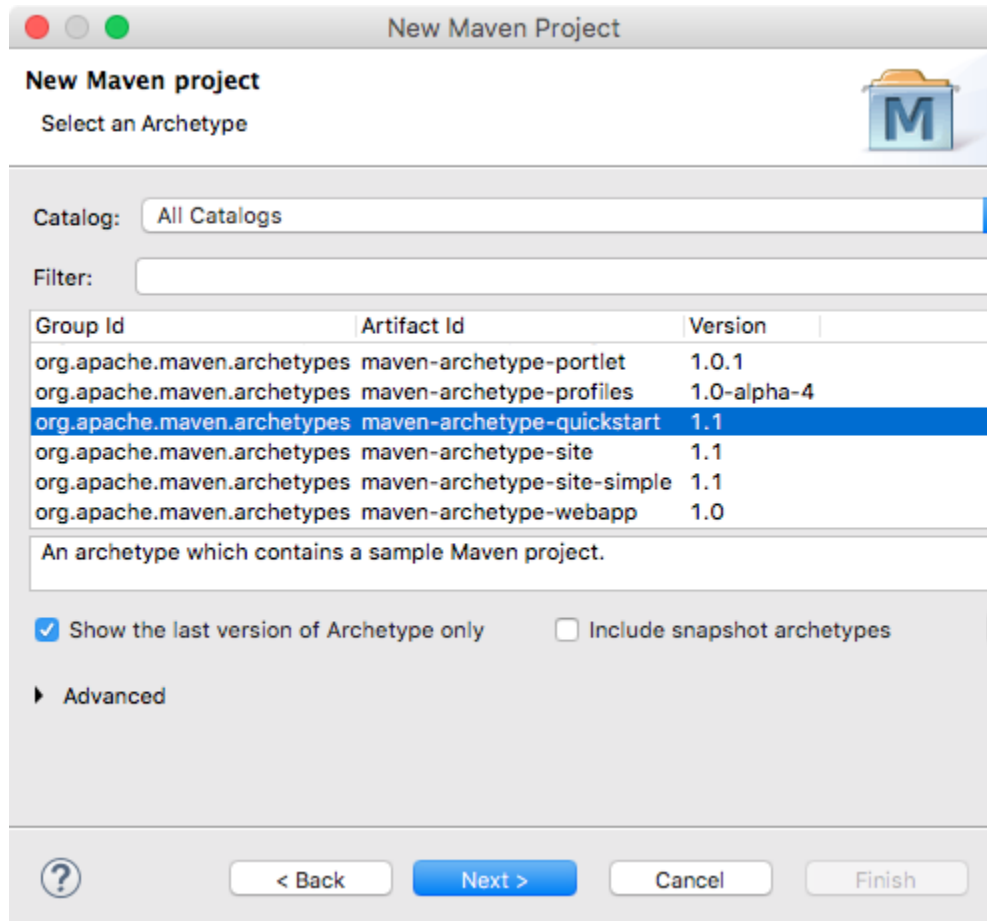
Finished after 0.018 seconds

Runs: 1/1 Errors: 0 Failures: 0

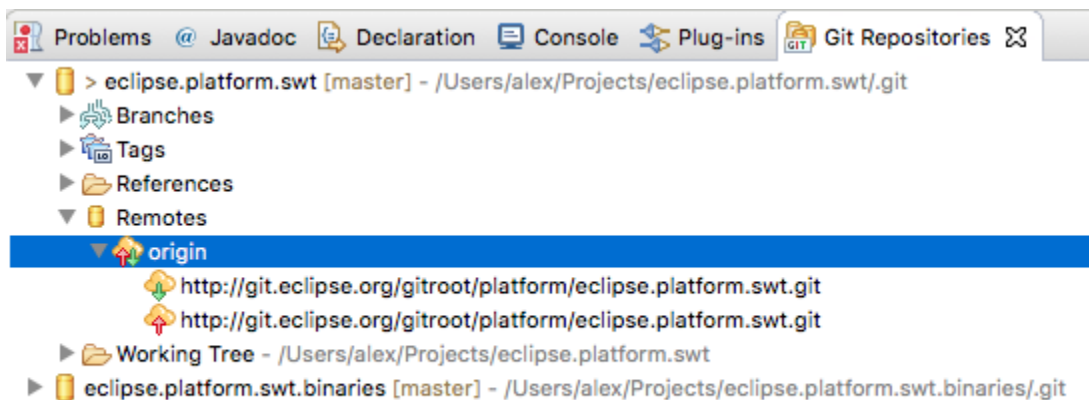
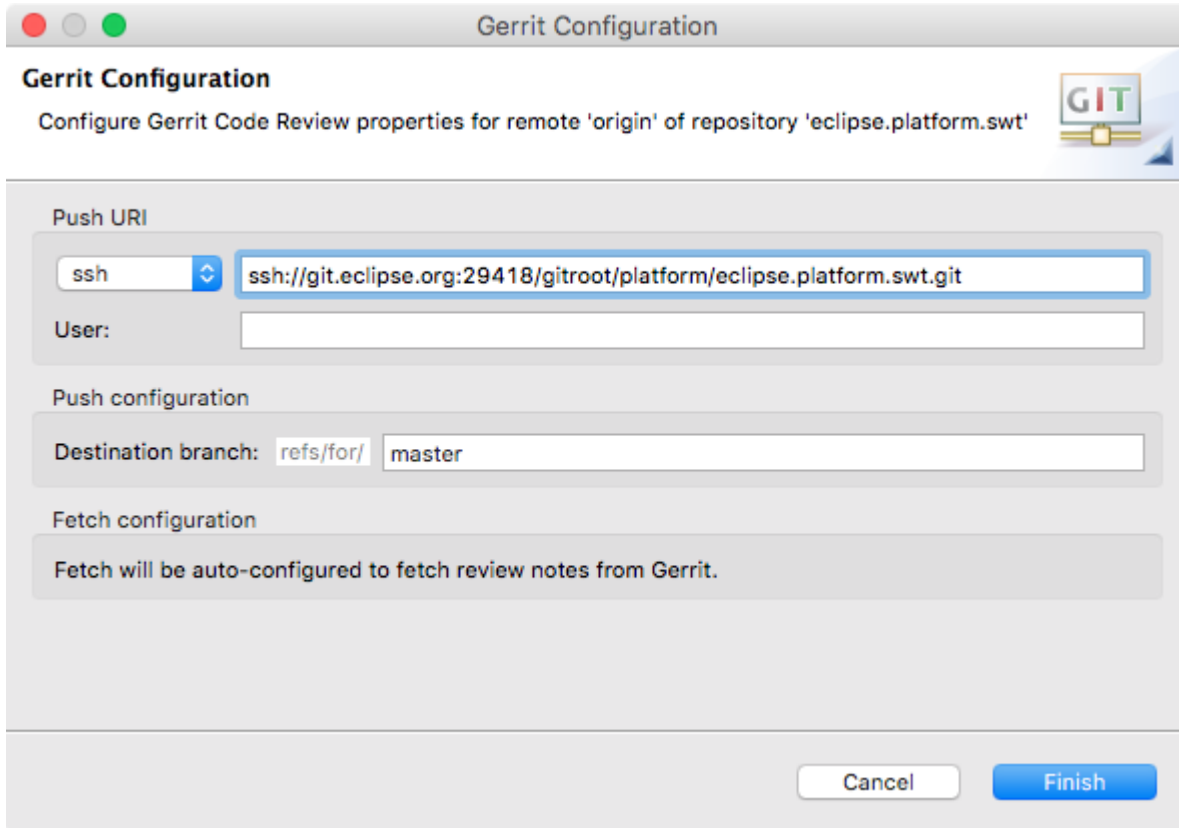
com.packtpub.e4.junit.sample.ExampleTest [Runner: JUnit 4] (0.001 s) Failure Trace

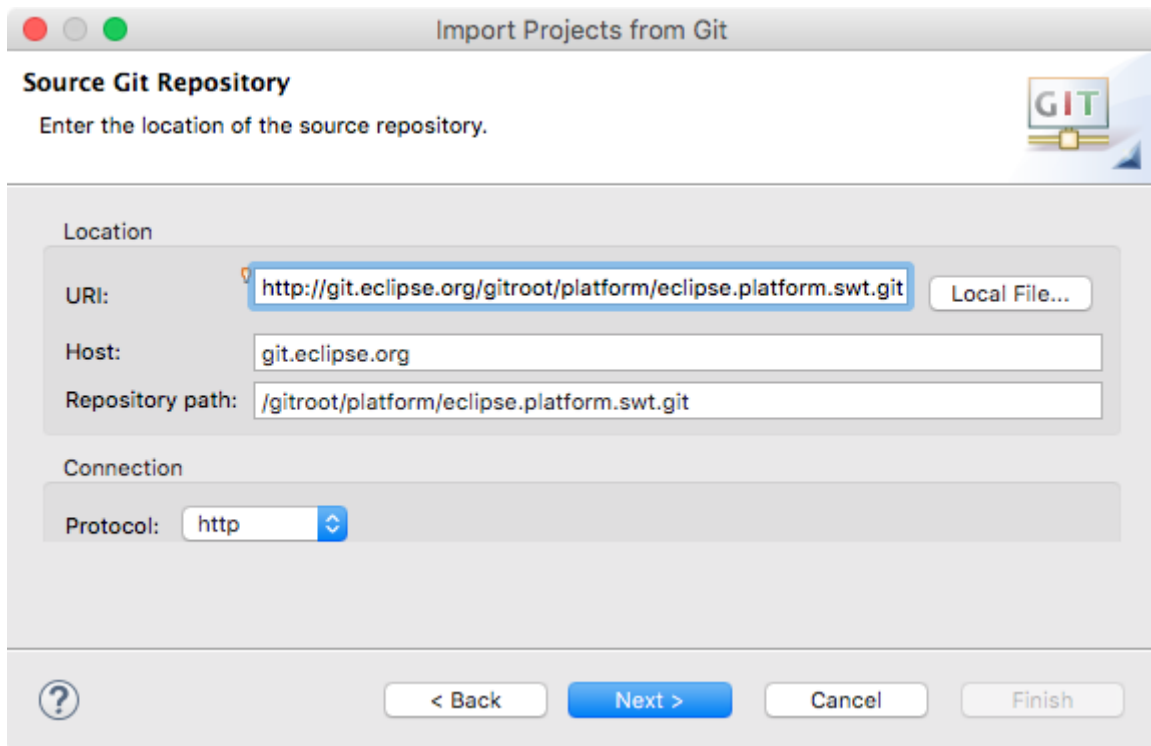
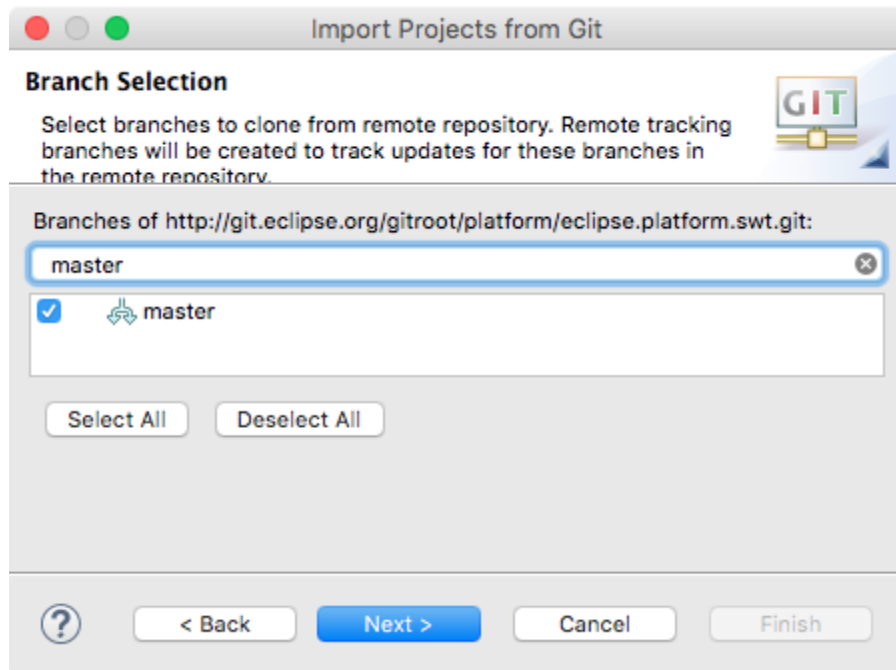
testOdd (0.001 s)

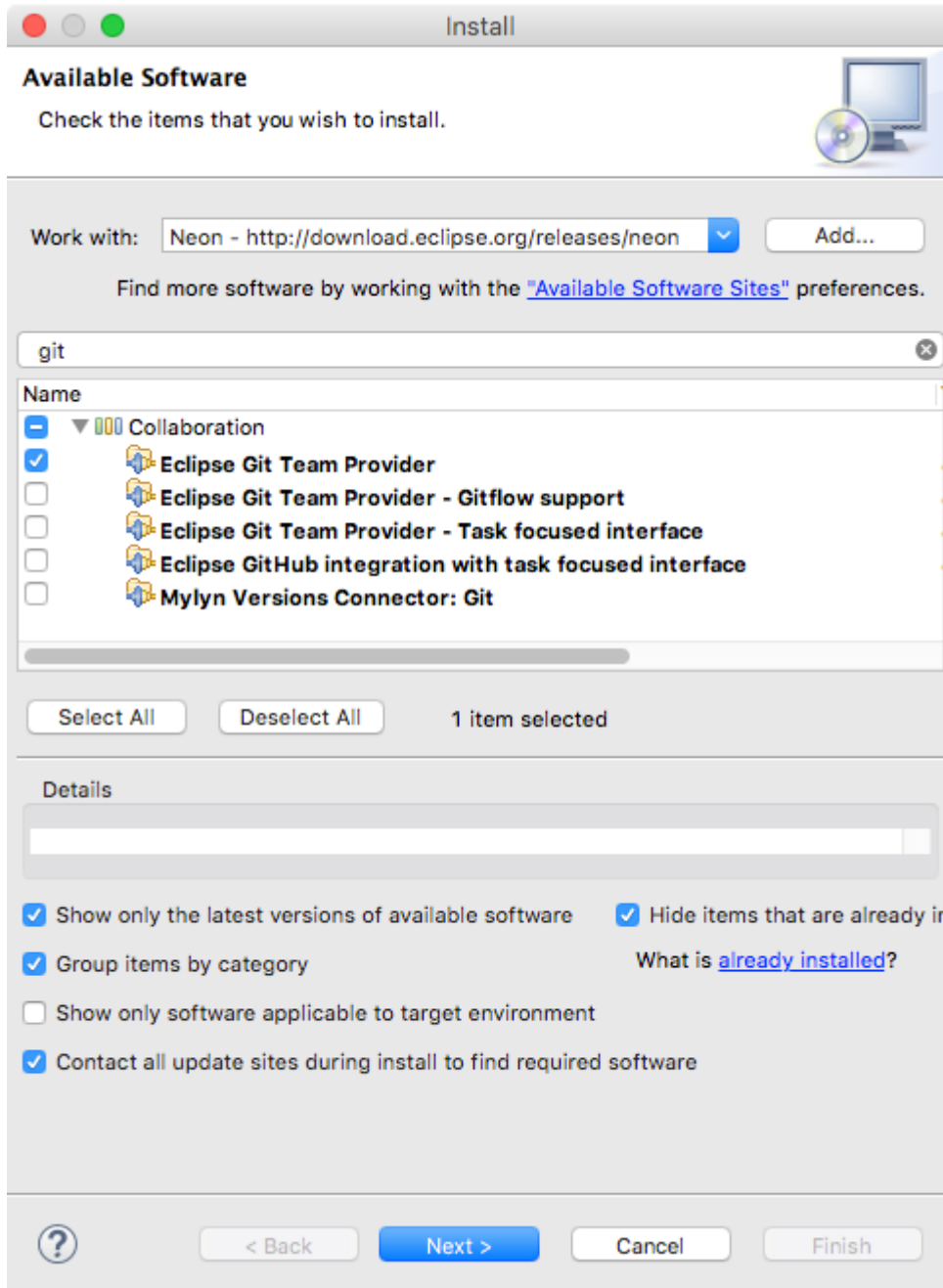
Chapter 12: Automated Builds with Tycho

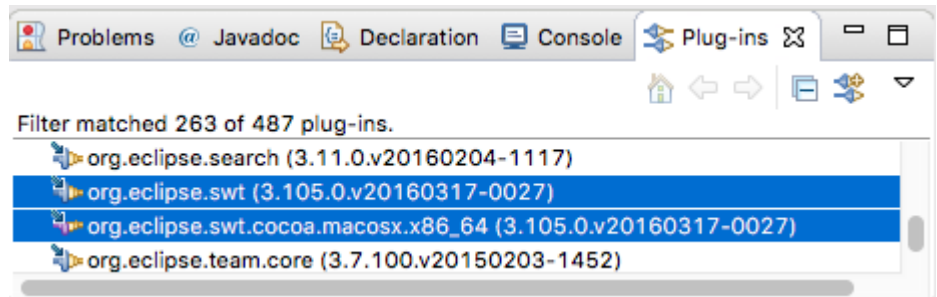
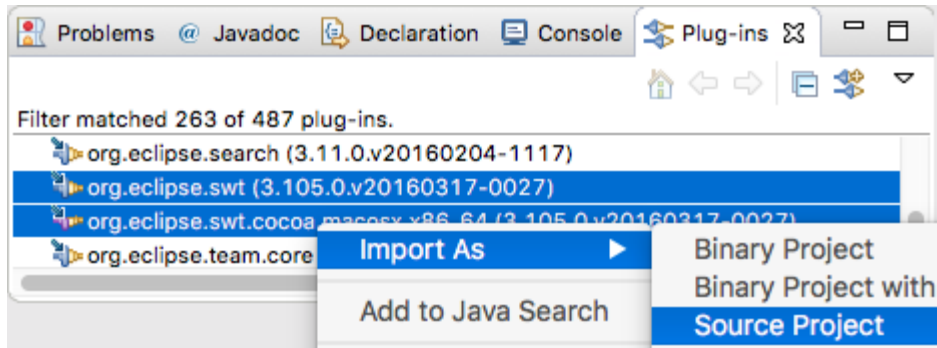


Chapter 13: Contributing to Eclipse










Debug Configurations

Create, manage, and run configurations

Create a configuration to launch an Eclipse application in debug mode.



Name:

Main (x) Arguments Plug-ins »4

Workspace Data

Location:

Clear: workspace log only

Ask for confirmation before clearing

Program to Run

Run a product:

Run an application:

Revert Apply

Filter matched 8 of 8 items

Close Debug

The image shows the Eclipse IDE's 'Debug Configurations' dialog box. The title bar reads 'Debug Configurations'. Below the title bar, there is a header section with the text 'Create, manage, and run configurations' and a sub-header 'Create a configuration to launch an Eclipse application in debug mode.' To the right of this text is a green bug icon. The main area is divided into two panes. The left pane is a tree view showing a list of configuration types: Eclipse Application, New_configuration (selected), Java Applet, Java Application, JUnit, JUnit Plug-in Test, OSGi Framework, and Remote Java Application. A search filter 'type filter text' is at the top of this pane, and a status bar at the bottom indicates 'Filter matched 8 of 8 items'. The right pane is the configuration editor for the selected 'New_configuration'. It has a 'Name' field containing 'New_configuration'. Below this are tabs for 'Main', 'Arguments', and 'Plug-ins'. The 'Main' tab is active and contains several sections: 'Workspace Data' with a 'Location' field containing a path starting with '\${workspace_loc}/../runtime-New_cor', a 'Clear' section with radio buttons for 'workspace' (selected) and 'log only', and a checked checkbox for 'Ask for confirmation before clearing'. The 'Program to Run' section has two radio buttons: 'Run a product' (selected) with a text field containing 'org.eclipse.sdk.ide', and 'Run an application' with a text field containing 'org.eclipse.ui.ide.workl'. At the bottom of the right pane are 'Revert' and 'Apply' buttons. At the very bottom of the dialog are a question mark icon, a 'Close' button, and a blue 'Debug' button.

