

**sidelab**<sup>®</sup>  
Laboratorio de Software y Entornos de Desarrollo

MSWL  
Development & Tool  
**Eclipse IDE**

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# Eclipse IDE

- Eclipse is an open source community whose projects are focused on building an extensible development platform, runtimes and application frameworks for building, deploying and managing software across the entire software lifecycle. Many people know us, and hopefully love us, as a Java IDE but Eclipse is much more than a Java IDE.
- <http://www.eclipse.org>



Eclipse - The Eclipse Foundation open source community website. - Chromium

Eclipse - The Eclipse Fo... x +

www.eclipse.org

Early Registration ends Sept 30th Register Now! **eclipseCON EUROPE 2011**

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Enterprise Java Eclipse RT Modeling Application Frameworks Language IDEs

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» Documentation » Report a Bug

### Announcements

2011/09/14 **Register for the Eclipse Fall 2011 Training Series**  
The Eclipse Foundation and Eclipse member companies are pleased to announce the **Fall 2011 Training Series**. These training classes are an excellent opportunity for software developers and architects to learn more about Ecl...

2011/09/13 **EclipseCon 2012 Call for Papers Now Open**  
EclipseCon 2012 **call for papers** is now open. We invite you to submit proposals for speaking topics. The deadline for submissions is November 11, 2011. EclipseCon 2012 will be held March 26-29 at a new location in Reston, Virginia ...

2011/09/12 **EclipseCon Europe to Celebrate 10 Years of Eclipse**  
The EclipseCon Europe technical program is now available. **Register now** and plan to celebrate the 10th birthday of Eclipse at EclipseCon Europe.

2011/08/11 **Eclipse Testing Day**  
Registration is open for Eclipse Testing Day, 7 September in Neuss, Germany. This day-long event features eight talks from experts in testing processes, tools, and technology, as well as opportunities to see the latest offerings from Testing Day sponsors.

2011/07/21 **New Java 7 Summit To Be Held at EclipseCon Europe**  
The Eclipse Foundation, in collaboration with Oracle, is pleased to announce the Java 7 Summit, to be held at the upcoming **EclipseCon Europe** in Ludwigsburg, Germany on November 2-4, 2011.

More...

### Community News

2011/09/20 **Get Started with BIRT contest is underway**  
Actuate is hosting a contest for developers to extend BIRT. An iPad 2 will be awarded to the best four BIRT ...

### Eclipse Marketplace

- dalutis4j Eclipse plug-in - 2.0.15 (2011/09/24)
- TextEditor Grep - 1.0.2 (2011/09/24)
- Toad Extension for Eclipse - 1.2.x (2011/09/23)
- AdbConnect - (2011/09/23)
- Chronon Time Travelling Debugger - 2.0 (2011/09/23)

View All Plugins

### Eclipse Live

- Chronon Webinar (2011/09/22)
- Chronon 2.0 fixes the evils of logging (2011/09/06)

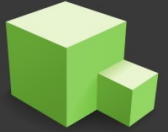


- The Eclipse open source community has over 200 open source projects. These projects can be conceptually organized into seven different "pillars" or categories:
  - Enterprise Development
  - Embedded and Device Development
  - Rich Client Platform
  - Rich Internet Applications
  - Application Frameworks
  - Application Lifecycle Management (ALM)
  - Service Oriented Architecture (SOA)



- The Eclipse community is also supported by a large and vibrant ecosystem of major IT solution providers, innovative start-ups, universities and research institutions and individuals that extend, support and complement the Eclipse Platform.
- We are interested in the Eclipse Integrated Development Environment (IDE)

# Eclipse IDE

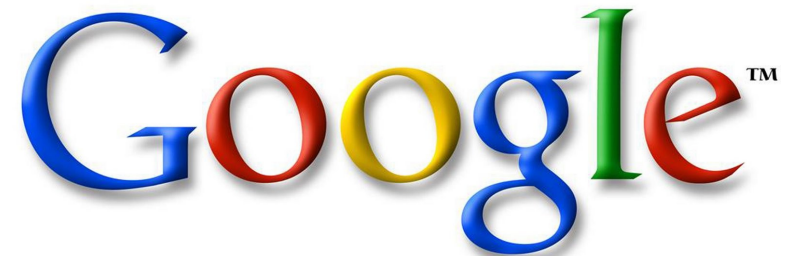


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**NOKIA**  
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**ORACLE**



# Eclipse IDE



- Eclipse IDE is open source, it has the Eclipse Public License (similar to Mozilla Public License)
- Is built in Java, and thus is multiplatform
- The user interface is implemented with Standard Widget Tool (SWT), a library that wraps native platform controls (responsive and integrated UI)
- Works very well in the main platforms: Win, Linux and Mac



# Eclipse IDE

- In this context we are interested in the Eclipse development tools
- Programming Languages:
  - Java, C/C++, Pascal, Haskell, PHP, PascalFC, ActionScript (Flash), Ada, Groovy, Python, JavaScript, Scala, Linux scripts...
- Control version systems:
  - CVS, SVN, Git...



- Issue tracker systems:
  - Bugzilla, Trac, GoogleCode, Redmine...
- Other development tools
  - Tests (JUnit), Continuous integration (Hudson, Jenkins), Documentation...

Package Explorer

- com.aramco.powers2.ui
  - src
    - com.aramco.powers2.ui
      - ActionBarAdvisor.java
      - Application.java
      - AppWorkbenchAdvisor.java
      - AppWorkbenchWindowAdvisor.java
      - ICommandIds.java
      - MessagePopupAction.java
      - NbBundle.java
      - OpenViewAction.java
      - Perspective.java
      - PluginConstants.java
      - Powers2Plugin.java
      - ProjectView.java
      - TableEditor.java
      - TableView.java
      - Bundle.properties
    - com.aramco.powers2.ui.action
    - com.aramco.powers2.ui.forms
    - com.aramco.powers2.ui.project.r
    - com.aramco.powers2.ui.table
    - com.aramco.powers2.ui.wizards
    - com.aramco.powers2.xyplot.date
  - test
    - com.aramco.powers2.internal.ui
    - com.aramco.powers2.ui.test
      - NbBundleTest.java**
      - com.aramco.powers2.xyplot.date
      - samples
- JRE System Library [jdk1.5.0\_06]
- Plug-in Dependencies
- JUnit 4
- doc
- icons
- META-INF
  - build.properties
  - com.aramco.powers2.ui.project.moc
  - IPlotDataModel.violet
  - plugin\_customization.ini

```

27 import com.aramco.powers2.ui.NbBundle;
28
29 /**
30  * Tests the behavior of utility class NbBundle.
31  * Tests need to run against the background of a known set of objects.
32  * This set of objects is called a test fixture. (Refer to http://www.junit.org)
33  */
34  * @author Guanglin Du (dugl@petrochina.com.cn), Software Engineering Center, RIPED, PetroChina
35  */
36 public class NbBundleTest {
37
38     /**
39      * Uses the Bundle.properties to test NbBundle's behavior.
40      */
41     @Test
42     public void testExistingResource() {
43         String s1 = NbBundle.getMessage(ProjectView.class, "add_new_pvt_sat");
44         assertEquals("Add New PVT or SAT table", s1);
45     }
46
47     /**
48      * Uses the Bundle.properties to test NbBundle's behavior.
49      */
50     @Test
51     public void testNonExistingResource() {
52         String s1 = NbBundle.getMessage(ProjectView.class, "non-existing");
53         assertEquals("%non-existing", s1);
54     }
55
56     /**
57      * Method main to run this class directly.
58      * Can be run this way also on a command line:
59      * java org.junit.runner.JUnit4 samples.SimpleTestFixture
60      */
61     public static void main(String args[]) {
62         JUnitCore.main("com.aramco.powers2.ui.util.test.NbBundleTest");
63     }
64 }
65

```

Outline

- com.aramco.powers2.ui.test
  - import declarations
  - NbBundleTest
    - main(String[])
    - testExistingResource()
    - testNonExistingResource()

JUnit

Finished after 0.129 seconds

Runs: 2/2      Errors: 0      Failures: 0

com.aramco.powers2.ui.test.NbBundleTest [Runner: JUnit 4]

Failure Trace



AccuRev - AccuWorkflowApplication.pl - Eclipse SDK

File Edit Source Refactor Source Refactor Navigate Search Project Run Window Help

Package Expl... Navigator

```
com.accurev.common
├── local_its
│   ├── AccuWorkflow
│   ├── AccuWorkflowExample
│   ├── AccuWorkIntegrationAPIs
│   ├── ALF
│   ├── APIs
│   ├── BugzillaAPIs
│   ├── BugzillaExample
│   ├── ClearQuestAPIs
│   ├── config
│   ├── Configuration
│   ├── CPErrorsIssues
│   ├── CQExample
│   ├── DTDs
│   ├── JiraAPIs
│   ├── JiraExample
│   ├── LDAPAPIs
│   ├── LDAPExample
│   ├── MKSIEExample
│   ├── MKSIntegrityAPIs
│   ├── TeamTrackAPIs
│   ├── TestDirAPIs
│   └── TestDirExample
```

```
# Make sure there is at least one argument on the command line
if ($#ARGV < 0)
{ # Display the usage of the script
  die "Usage:\n perl AccuWorkflowApplication.pl ".<ApplicationSetup>
    "where ApplicationSetup: The path to the Application Setup
      "TriggerInput.xml: The path to the trigger input
}

# Get the application configuration information
my $setupFilePath = $ARGV[0];
initializeApplicationSetup($setupFilePath);
```

AccuRev Console AccuRev Search/Status Synchronize History Console

AccuRev (/local\_its)

```
local_its
├── config
├── Configuration
├── Configuration/ABITSConfigApp
├── Configuration/ABITSConfigApp/src/com/accurev/configapp
├── Configuration/ABITSConfigApp/src/com/accurev/configapp/images
├── Configuration/ABITSConfigApp/src/com/accurev/configapp/its/view
├── Configuration/ABITSConfigApp/src/com/accurev/configapp/utilities
├── CPErrorsIssues
├── CQExample
├── JiraExample
```



- My SQLstream Instance
  - Schemas
    - Fulfillment
      - Foreign Streams
        - RawOrders
        - RawShipments
      - Foreign Tables
      - Streams
      - Tables
      - User Defined Functions
      - Views
        - Invoices
        - Large Orders
        - Orders
        - Revenue
        - Shipments
    - SALES
      - Data Sources & Sinks
      - Plugins
      - Pumps

Schema Fulfillment

CREATE OR REPLACE VIEW "Invoices" AS

```

SELECT STREAM *
  FROM "Large Orders" OVER sla
 JOIN "Shipments" OVER sla
    ON "Large Orders"."orderid" = "Shipments"."orderid"
 WINDOW sla AS (RANGE INTERVAL '1' MINUTE PRECEDING)

```

SQL Definition Java

Properties Problems Console Error Log

System Output Console

## Related Topics

## About SQLstream Editor

Click on any workbench part to show related help topics.

## Dynamic Help

Go To:

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**MyEclipse Swing/Matisse - ContactEditor.form - Eclipse SDK**

File Edit Source Refactor Navigate Search Project MyEclipse Run Window Help

**Swing/Matisse Perspective**

**Package Explorer**

- Matisse4MyEclipse\_examples
  - src
    - examples
      - ContactEditor.java
      - ContactEditor2.java
      - EmailPanel.java
      - NamePanel.java
      - ContactEditor.form**
      - ContactEditor2.form
      - EmailPanel.form
      - NamePanel.form

**Outline**

- Form name
  - jPanel1 [JPanel]
  - jPanel2 [JPanel]
    - jLabel6 [JLabel]
    - jTextField5 [JTextField]
    - jScrollPane1 [JScrollPane]
    - jButton1 [JButton]
    - jButton2 [JButton]
    - jButton3 [JButton]
    - jButton4 [JButton]
    - jLabel7 [JLabel]
    - jRadioButton1 [JRadioButton]

**ContactEditor.form**

**Matisse Palette View**

- Swing
  - JLabel
  - JButton
  - JToggleButton
  - JCheckBox
  - JRadioButton
  - ButtonGroup
  - JComboBox
  - JList
  - JTextField
  - JTextArea
  - JPanel
  - JTabbedPane
  - JScrollBar

**Matisse Form Editor**

Name

First Name: John Last Name: Guy

Title: Prof, DrSC NickName: gui-master

Display Format: [NickName] First\_Name + Last\_Name

E-mail

E-mail Address: [Add] [Edit] [Remove] [As Default]

john.guy@xxxxxxx.yyy  
guy@yyyyyyy.xxx

Mail Format:  HTML  Plain Text  Custom

OK Cancel

**Form component outline**

**Design and Source modes**

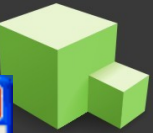
Source Form

**Properties view**

| Properties        | Events                              | Code         |
|-------------------|-------------------------------------|--------------|
| background        | <input type="checkbox"/>            | [255,255,... |
| columns           | 0                                   | ...          |
| document          | [PlainDocume...                     | ...          |
| editable          | <input checked="" type="checkbox"/> | ...          |
| font              | Tahoma 11 Pl...                     | ...          |
| foreground        | █ [0,0,0]                           | ...          |
| horizontalAlignme | LEADING                             | ...          |
| text              |                                     | ...          |

**jTextField5 [JTextField]**





UML Modeling - couriersystem - Eclipse SDK

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UML Modeling

Tools: Point Eraser, Sweeper, Gesture Pen, Class, Generalization, Usage, Association, N-ary Association, Association Class

```
package couriersystem.controls;
import couriersystem.model\ORM_Customer;
public class CustomerController {

    public void createCustomerAccount() {
        throw new UnsupportedOperationException();
    }

    public void removeCustomerAccount() {
        throw new UnsupportedOperationException();
    }

    public ORM_Customer getCustomerByID(String id) {
        throw new UnsupportedOperationException();
    }

    public ORM_Customer searchCustomerByCountry() {
```

CustomerController - Class

|                    |                                     |
|--------------------|-------------------------------------|
| Name               | CustomerContr...                    |
| Parent             | controls                            |
| View               |                                     |
| Fill               | Blue                                |
| Line               | Black                               |
| Font               | Dialog                              |
| Connection p...    | Follow diagram                      |
| Transparency       | 0                                   |
| Show attribut...   | Show all                            |
| Show operati...    | Show all                            |
| Attribute sort ... | No Sorting                          |
| Operation sor...   | No Sorting                          |
| Show initial at... | <input checked="" type="checkbox"/> |
| Show operati...    | <input checked="" type="checkbox"/> |
| Visibility style   | Icon                                |
| Wr.no.Members      | <input type="checkbox"/>            |



- Other side tools
  - Latex
  - XWiki
  - UML diagrams
  - Database access
  - Web server integration
  - Monitoring, profiling, logging management...



- Eclipse IDE is a modular system
  - All tools are available by means of *plugins*
  - A *plugin* is like a *addon* or *complement* that can be installed in the Eclipse IDE
  - There are commercial and open source *plugins*
  - There are *official* Eclipse plugins and other ones developed by third parties (organizations, companies, individuals...)
  - Of course, Eclipse has their own “AppStore”



<http://marketplace.eclipse.org>



- Eclipse Distributions
  - Eclipse can be downloaded in preconfigured “distributions”
  - They are called Eclipse Distros or Eclipse packages
  - Each distro has a set of related plugins to accomplish a task (Java development, C/C++ development, web development...)
  - There are fully open source free distros and commercial ones (with commercial plugins)
- Eclipse has native code (for UI). For this, you have to download the Eclipse distro for your platform



- How to download Eclipse
  - Official Eclipse packages
    - Preferred way to obtain Eclipse
    - <http://eclipse.org/downloads/>
  - MyEclipse (Commercial)
    - Advanced commercial plugins
    - <http://www.myeclipseide.com/>



- How to download Eclipse
  - EasyEclipse
    - Discontinued
    - <http://www.easyeclipse.org/>
  - EclipseGavab
    - Developed in the URJC to first courses students
    - <http://www.sidelab.es/projects/eclipsegavab/>
  - Aptana
    - Eclipse distro oriented to Web development
    - <http://aptana.com/>

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|  | <b>Eclipse Classic 3.7</b> , 173 MB<br>Downloaded 1,631,111 Times <a href="#">Details</a> <a href="#">Other Downloads</a>                | Linux 32 Bit<br>Linux 64 Bit |
|  | <b>Eclipse IDE for Java Developers</b> , 121 MB<br>Downloaded 575,855 Times <a href="#">Details</a>                                      | Linux 32 Bit<br>Linux 64 Bit |
|  | <b>CloudBees Toolkit for Eclipse</b> <span>Promoted Download</span><br>Making it easy to create and monitor Jenkins builds from Eclipse. | Download                     |
|  | <b>Eclipse IDE for C/C++ Developers (includes Incubating components)</b> , 107 MB<br>Downloaded 306,206 Times <a href="#">Details</a>    | Linux 32 Bit<br>Linux 64 Bit |
|  | <b>Eclipse IDE for JavaScript Web Developers</b> , 109 MB<br>Downloaded 109,645 Times <a href="#">Details</a>                            | Linux 32 Bit<br>Linux 64 Bit |
|  | <b>Eclipse IDE for Java and Report Developers</b> , 250 MB<br>Downloaded 69,173 Times <a href="#">Details</a>                            | Linux 32 Bit<br>Linux 64 Bit |

**Hint:**  
You will need a **Java runtime environment (JRE)** to use Eclipse (Java SE 5 or greater is recommended). All downloads are provided under the terms and conditions of the **Eclipse Foundation Software User Agreement** unless otherwise specified.

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Universidad Rey Juan Carlos

Java Ruby  
C/C++ Haskell  
Pascal PascalFC

# eclipse

## Gavab

GANYMEDE 2.0

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<http://www.gavab.es/eclipsegavab>

Variables

| Name               | Value |
|--------------------|-------|
| result : longint   | 12    |
| getvalue : longint | 12    |

```
function getValue : longint;  
begin  
    getValue := 12;  
end;  
end.
```

Console

TurboPascal.exe [Pascal Local Application] C:\Documents and Settings\Patxi\workspace\TurboPascal\Debug\TurboPascal.exe (24/02/09 17:42)

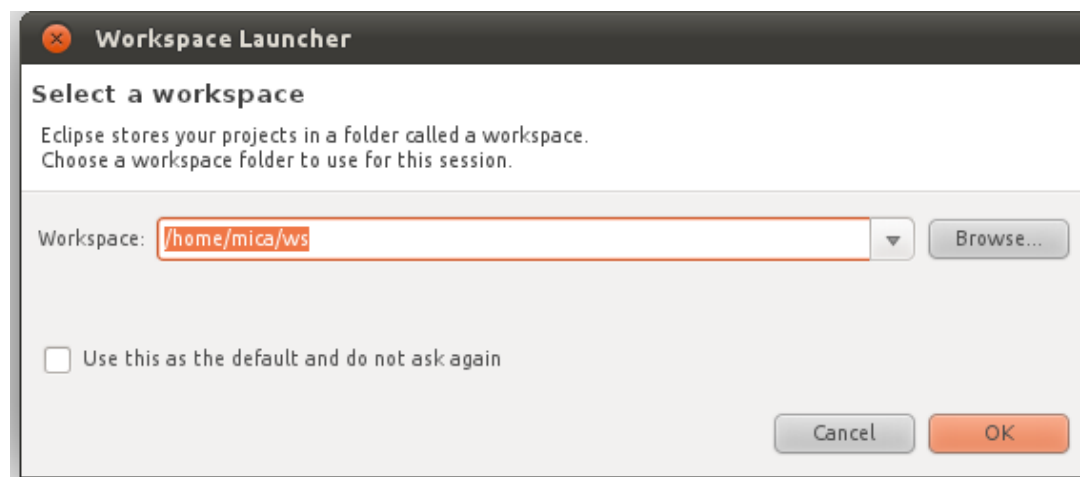


- The official Eclipse Distro is installed following the steps:
  - Download and install Java SE Runtime Environment (JRE)
    - **Windows:** Oracle JRE from <http://oracle.com/technetwork/java>
    - **Linux:**
      - Oracle JRE from web page or from repositories
      - OpenJDK from repositories
    - **Mac:** Available from Apple
  - Download Eclipse in .zip or .tar.gz
  - Decompress Eclipse file
- Eclipse is launched executing “eclipse” native executable in eclipse folder

# Eclipse IDE



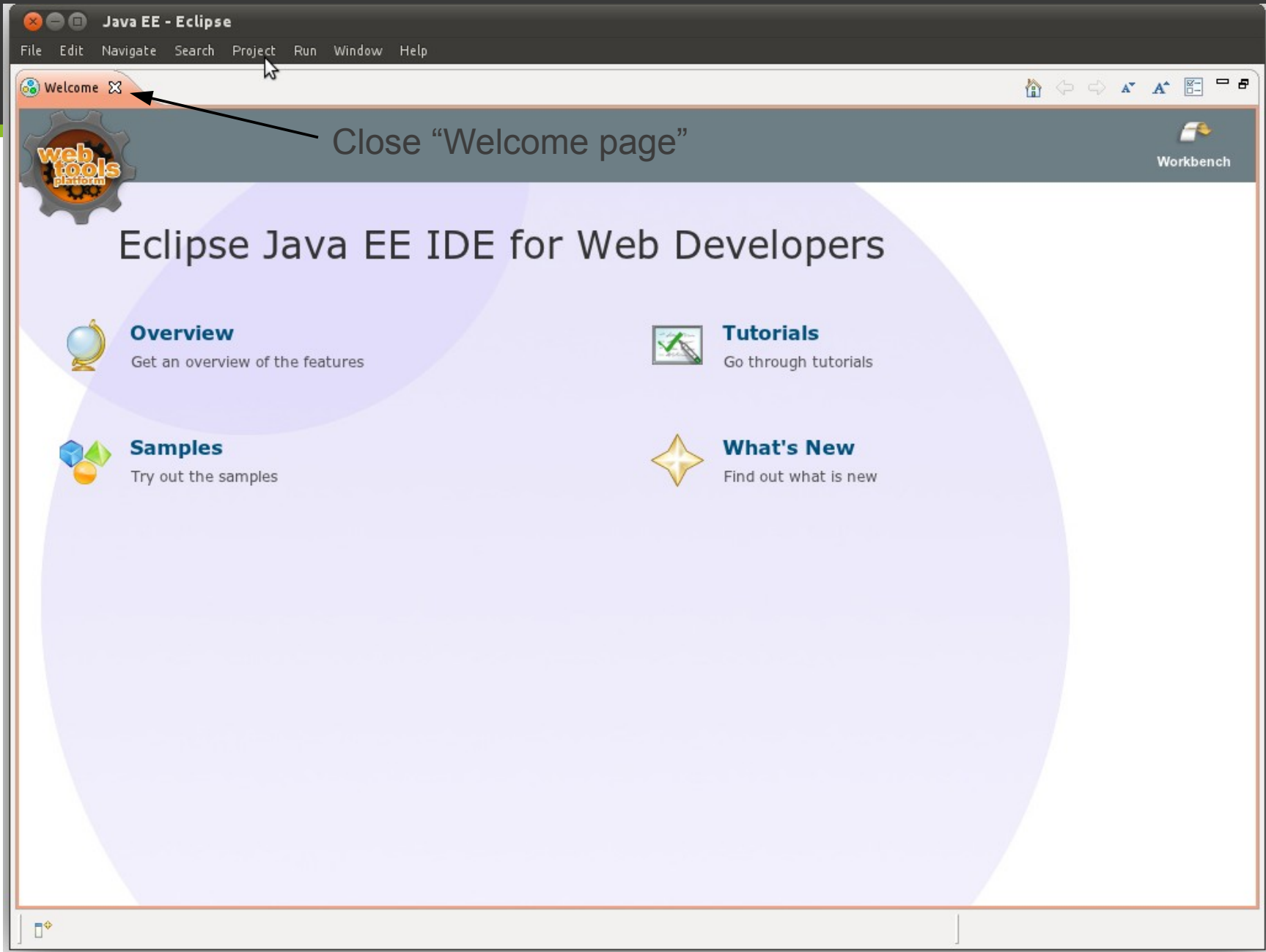
- Eclipse needs a folder to store configuration data
- This folder is called *workspace*
- The workspace path is asked to user every time he launch Eclipse
- Is recommended to use one different workspace for each different task/context
  - One ws per subject
  - One ws to final master project
  - One ws to experiment with some new language/technology



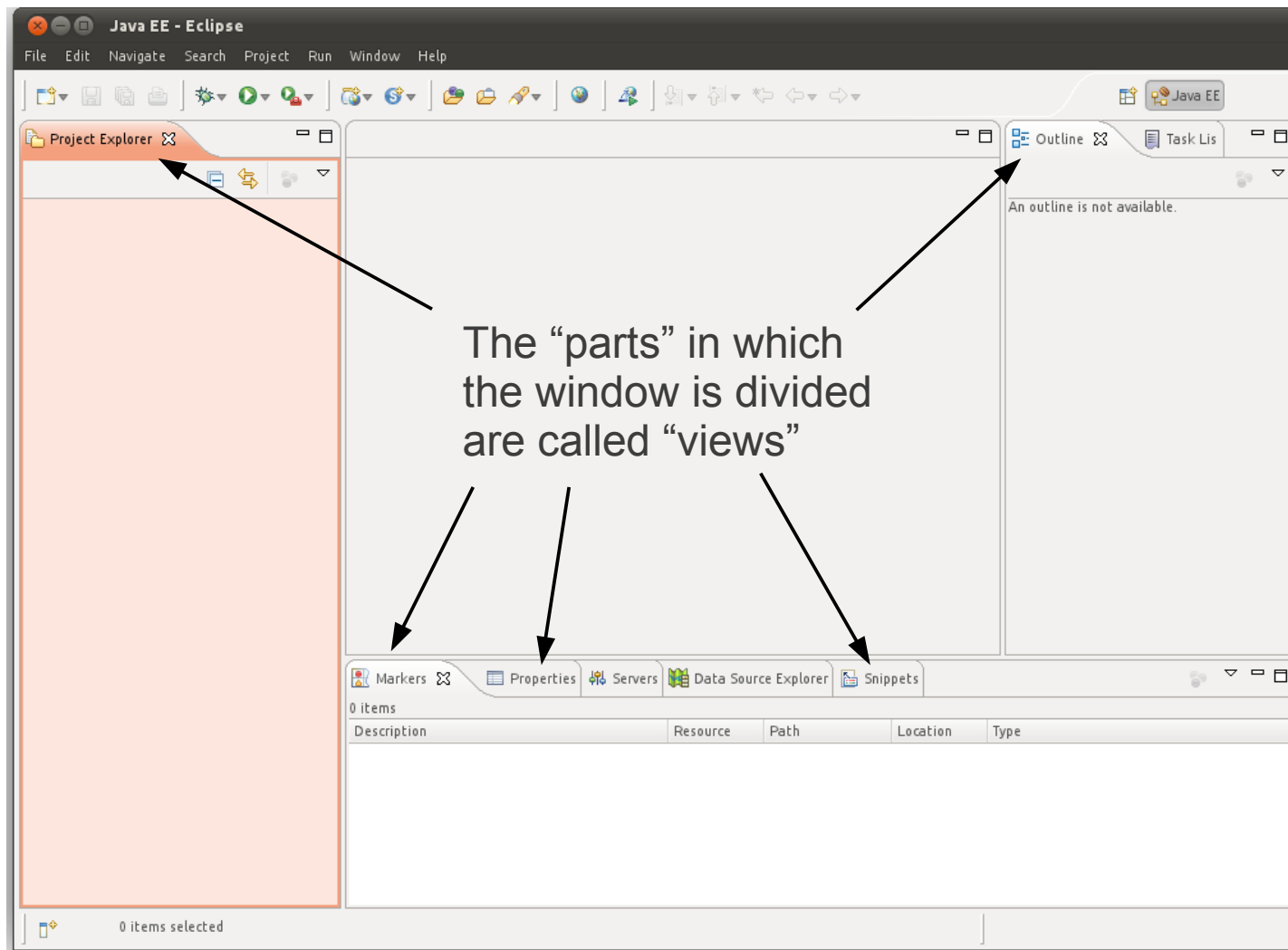


# Eclipse IDE

- When you start Eclipse from a brand new workspace, a “Welcome” page is shown
- Is a web page with information about Eclipse and the currently installed plugins



# Eclipse IDE

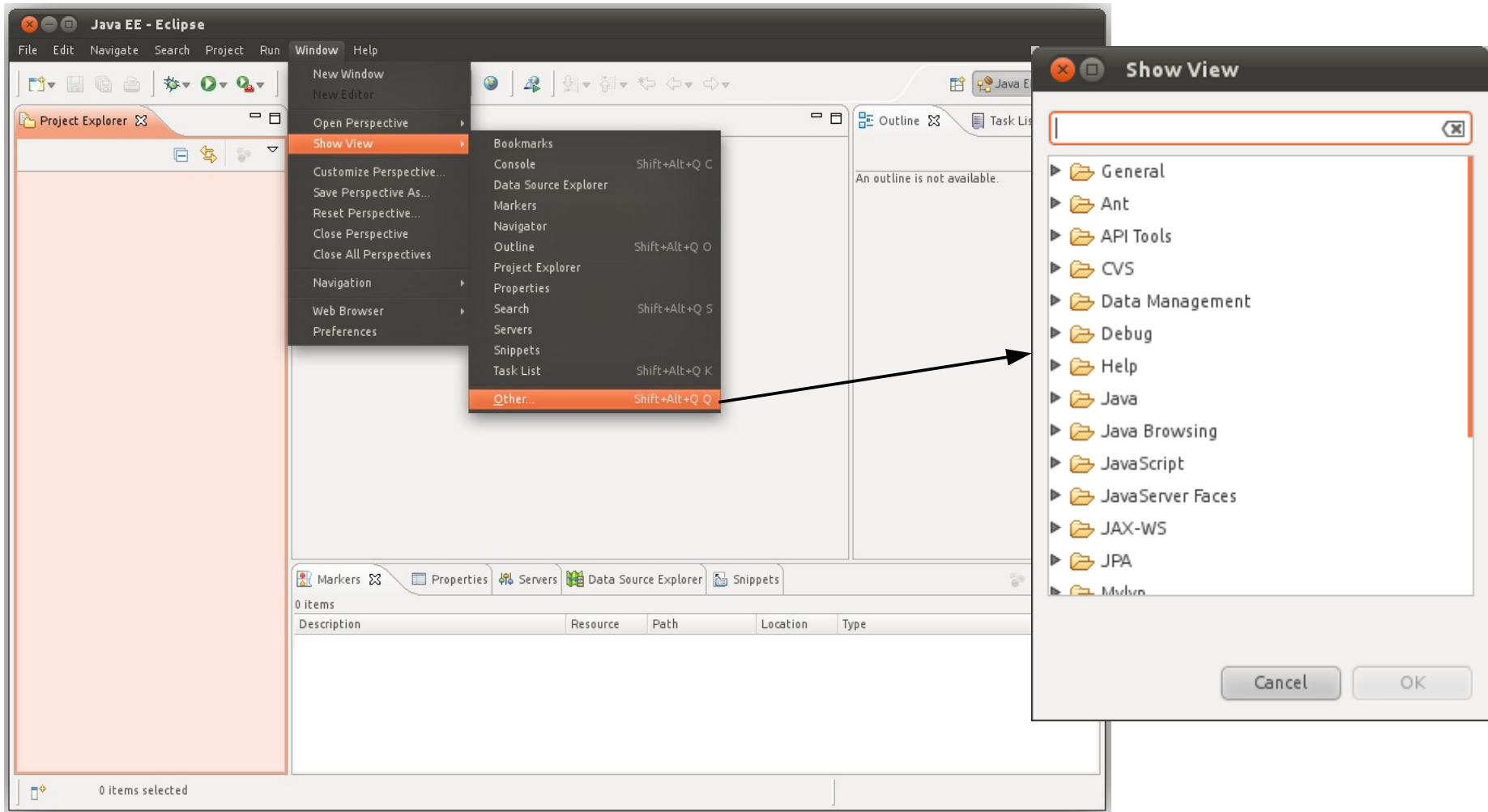


You can rearrange, move, maximize and close views to configure Eclipse to fit your needs

# Eclipse IDE

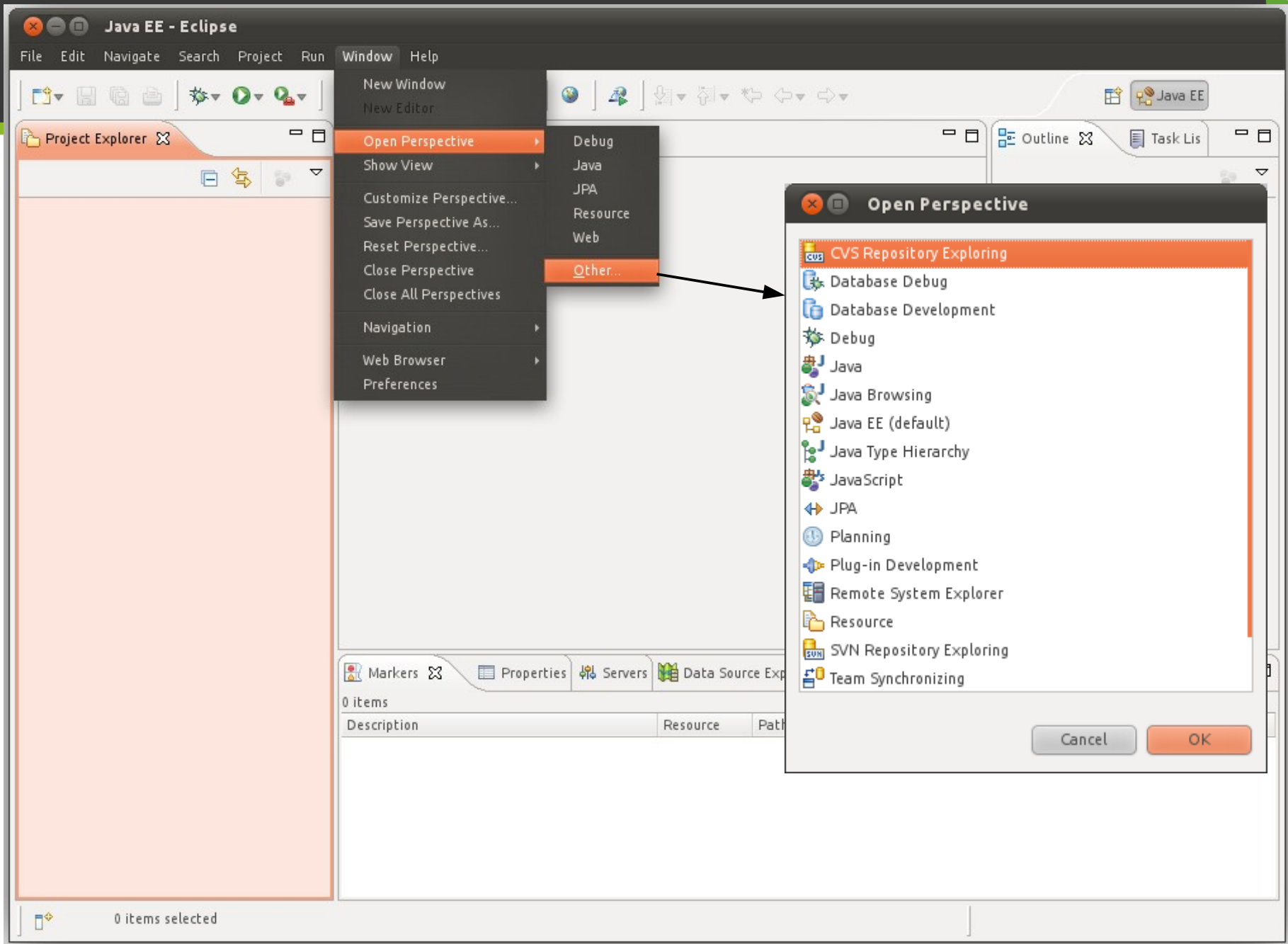


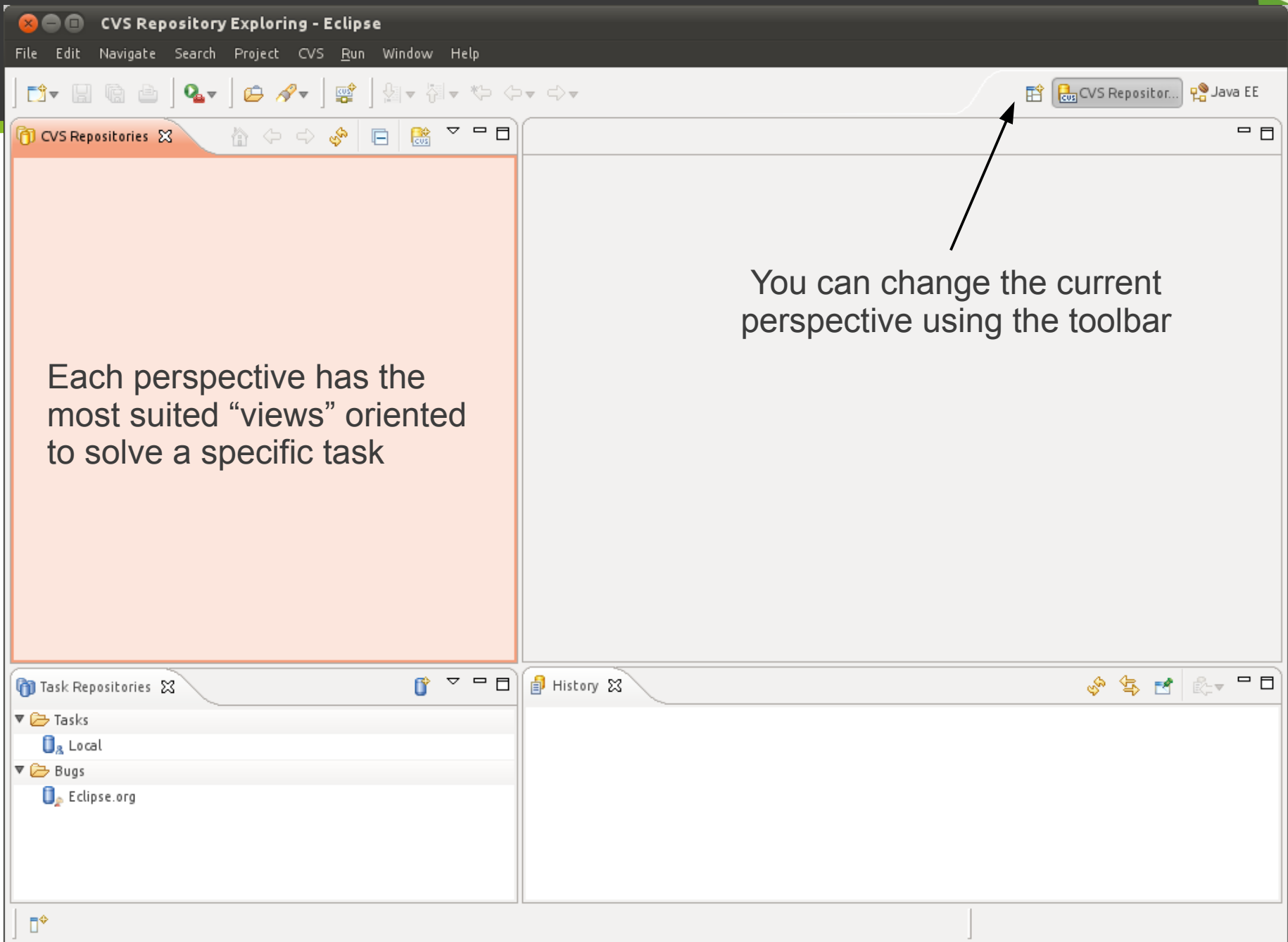
- If you close a *view* it can be shown again





- Eclipse has several “perspectives” depending on the task at hand
  - Programming perspectives
    - Java, Java EE, C/C++
  - Debug perspective
  - Control Version systems perspectives
    - SVN repository exploring, Git, CVS
    - Team synchronizing
  - Other perspectives
    - XML, JPA, Database debugs...
- The available perspectives depend on your eclipse distro and the installed plugins







- PyDev is the Eclipse plugin to develop with Python
- Is being developed by appcelerator, the Aptana company
- It is not an official Eclipse plugin (but this is not important)
- Can be used to do **Python**, **Jython** and **IronPython** development
- It is included in Aptana (Eclipse Distro)
- It is open source (Eclipse Public License)

<http://pydev.org/>



- It comes with many goodies such as:
  - Django integration
  - Code completion
  - Auto import
  - Syntax highlighting
  - Code analysis
  - Go to definition
  - Refactoring
  - Mark occurrences
  - Debugger
  - Remote debugger
  - Tokens browser
  - Interactive console
  - Unittest integration
  - Code coverage



PyDev - Robots/src/robots/tests/test\_robot.py - Eclipse SDK

File Edit Source Refactoring Navigate Search Project Pydev Run Commands Window Help

PyDev Package Explorer

- Robots
  - src
    - robots
      - tests
        - test\_robot.py
        - \_\_init\_\_.py
      - core.py
      - my.py
    - .project
    - .pydevproject
    - python (D:\bin\python265\python.exe)

Outline

- unittest
  - TestCase
    - testRobots
      - Robot (robots.core)
    - \_\_main\_\_

```
import unittest

class TestCase(unittest.TestCase):

    def testRobots(self):
        from robots.core import Robot
        robot = Robot()
        robot.Walk()
        robot.SayHello()

if __name__ == '__main__':
    unittest.main()
```

sys

- SystemError
- SystemExit
- sys\_executable - setuptools.command.easy\_install
- sys\_maxsize - win32com.test.testShell
- sys\_version - django.core.servers.basehttp
- sys\_version - platform
- sys\_version - wsgiref.simple\_server
- SysconfigTestCase - distutils.tests.test\_sysconfig
- sysdate - sqlalchemy.sql.functions
- sysfile - numpy.distutils.system\_info
- sysid - xml.sax.saxutils

Press Ctrl+Space for templates.

Writable Insert 11 : 12



- Installation
  - Be sure that python is installed in your system

```
mica@mica-laptop: ~  
mica@mica-laptop:~$ python  
Python 2.7.1+ (r271:86832, Apr 11 2011, 18:13:53)  
[GCC 4.5.2] on linux2  
Type "help", "copyright", "credits" or "license" for more information.  
>>> 5 +5  
10  
>>> exit()  
mica@mica-laptop:~$
```

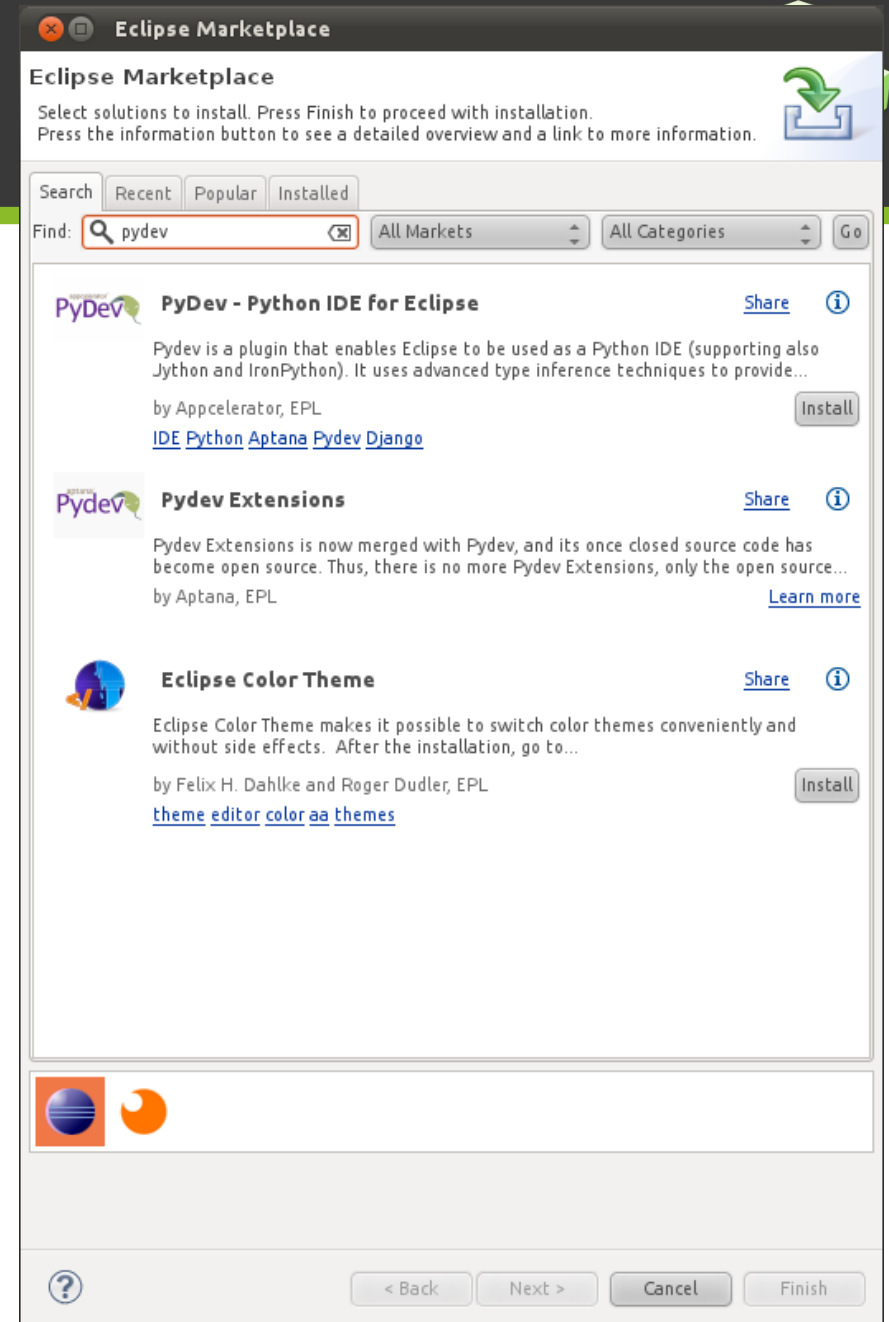
- If not, install it :)

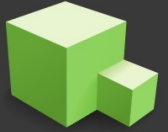


- Installation (2)
  - Be sure you have an Eclipse distro somewhere in your disk and execute it
  - Try to use a modern version (last one is 3.7 aka Indigo)
  - Launch Eclipse with an user with write permissions in the eclipse folder itself (needed to install the plugin)
  - In Eclipse
    - **Menu Help > Eclipse Marketplace**
    - **Type "PyDev" in Find box and clic on "Go" button**

# PyDev

- Installation (3)
  - Do clic on “Install” button in “PyDev – Python IDE for Eclipse”
  - Go throught dialogs with “Yes” “Next” “Accept” “Install” “Restart” or similar options...
  - Be patient... if download fails, restart.





- Installation

- After Eclipse restart, you can open the new “PyDev” perspective
- Menu “Window > Open Perspective > Other...”



PyDev - Eclipse

File Edit Navigate Search Project Pydev Run Window Help

PyDev Package Explorer

Project and File explorer

Folders are shown like "packages" in the python sense

Source file editor area

Outline

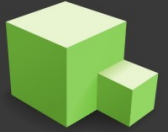
An outline is not available.

Source file members (classes, methods, functions...)

Problems

0 items

| Description        | Resource | Path | Location | Type |
|--------------------|----------|------|----------|------|
| Source code errors |          |      |          |      |



- Configure Python Interpreter in Eclipse
  - After installing it, the first thing you must do is configure the Python interpreter.
  - Menu “window > preferences > PyDev > Interpreter – Python
  - Try with “Auto Config” button, that will try to find it in your PATH



Preferences

Python Interpreters

Python interpreters (e.g.: python.exe)

| Name   | Location           |
|--------|--------------------|
| python | /usr/bin/python2.7 |

New...  
Auto Config  
Remove  
Up  
Down

Libraries Forced Builtins Predefined Environment String Substitution Variables

System PYTHONPATH

- System libs
  - /usr/lib/python2.7
  - /usr/lib/python2.7/plat-linux2
  - /usr/lib/python2.7/lib-tk
  - /usr/lib/python2.7/lib-old
  - /usr/lib/python2.7/lib-dynload
  - /usr/local/lib/python2.7/dist-packages
  - /usr/lib/python2.7/dist-packages
  - /usr/lib/python2.7/dist-packages/PIL
  - /usr/lib/pymodules/python2.7/gtk-2.0
  - /usr/lib/python2.7/dist-packages/gst-0.10
  - /usr/lib/python2.7/dist-packages/gtk-2.0
  - /usr/lib/pymodules/python2.7
  - /usr/lib/pymodules/python2.7/ubuntuone-control-panel
  - /usr/lib/pymodules/python2.7/ubuntuone-client

New Folder  
New Egg/Zip(s)  
Remove

Restore Defaults Apply

Cancel OK

# PyDev



- A Python Program is developed in a Eclipse PyDev Project
  - Menu “File > New > PyDev project”
  - Select a name for it
  - Clic “Finish”

**PyDev Project**  
Project name is empty

Project name:

Project contents:  
 Use default

Directory

Project type  
Choose the project type  
 Python  Jython  Iron Python

Grammar Version

Interpreter

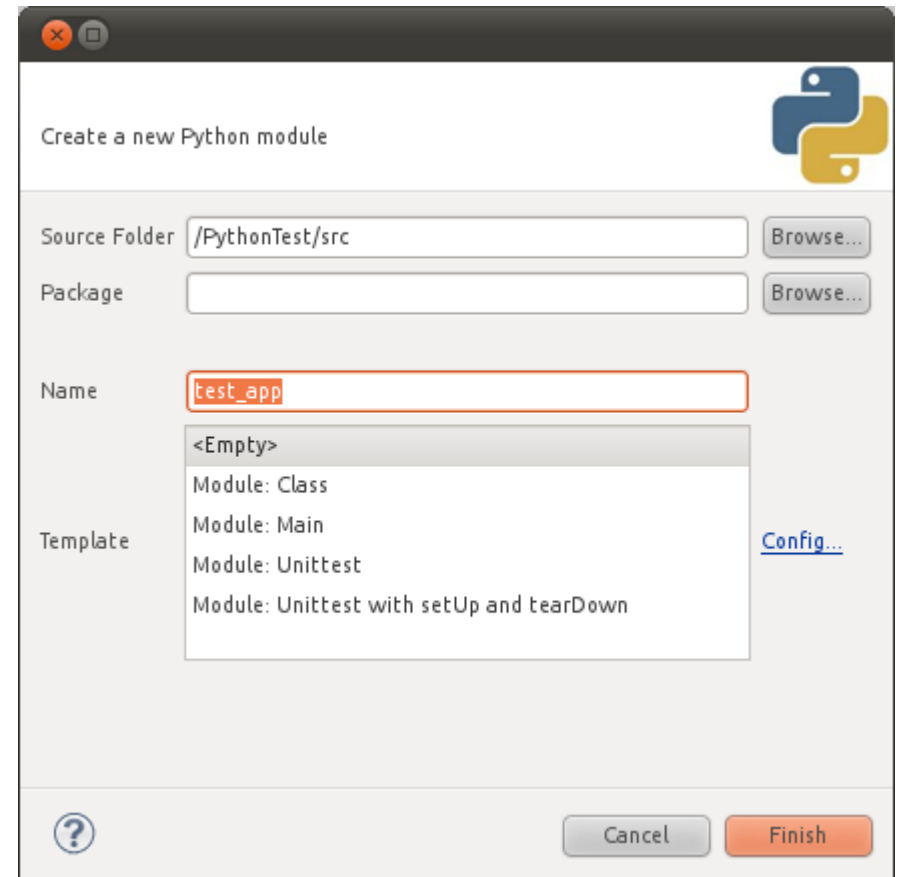
[Click here to configure an interpreter not listed.](#)

Create 'src' folder and add it to the PYTHONPATH?  
 Add project directory to the PYTHONPATH?  
 Don't configure PYTHONPATH (to be done manually later on)



- You are ready to create python modules (source files) and python packages (folders)
- Menu "File > New > PyDev Module"
- Write Name "test\_app"
- Clic in "Finish" button
- Write the module:

```
print "Hello World!"
```





- Execute a module
  - Launch the program
    - The first time: Menu "Run > Run As > Python Run"
    - The following times: Clic Green Play toolbar button
  - Program Input/output
    - The Console view appears with the program output
    - Is like a shell
  - Finishing the program
    - The program can be stopped any time with the stop button in the Console view



Launch Module

Stop the program

Console