Eclipse: Introduction

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What is Eclipse?

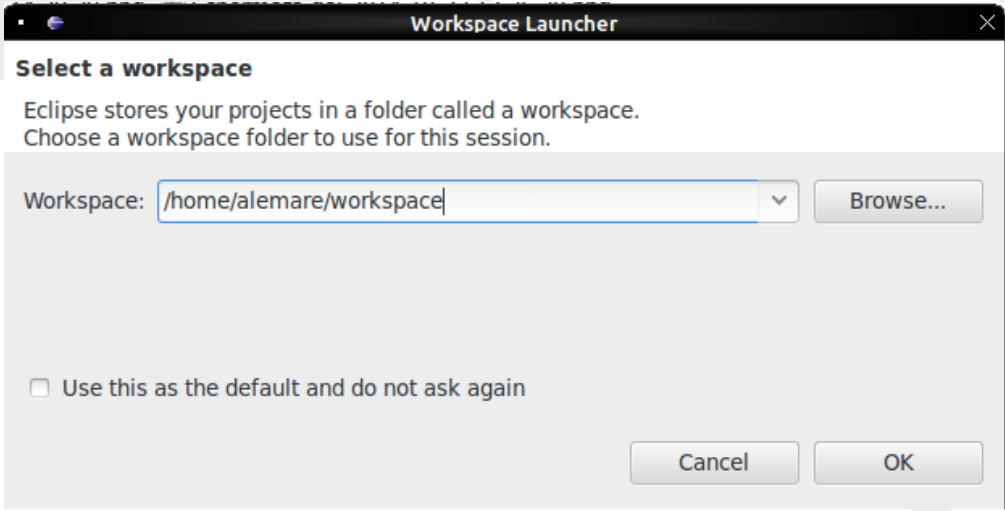
- an Integrated Development Environment (IDE)
  - provides tools for coding, building, running and debugging applications
- designed for Java, now supports many other languages
  - good support for C, C++, Python, PHP, Ruby, etc...
- Eclipse can be downloaded from:
  - http://www.eclipse.org/downloads/packages/
- grab “Eclipse IDE for Java Developers”: Eclipse comes bundled as a zip file (Windows) or a tarball (all other operating systems)

Eclipse How-To

- where are my files
- creating a new project
- set project's properties
- run configurations
- debugging

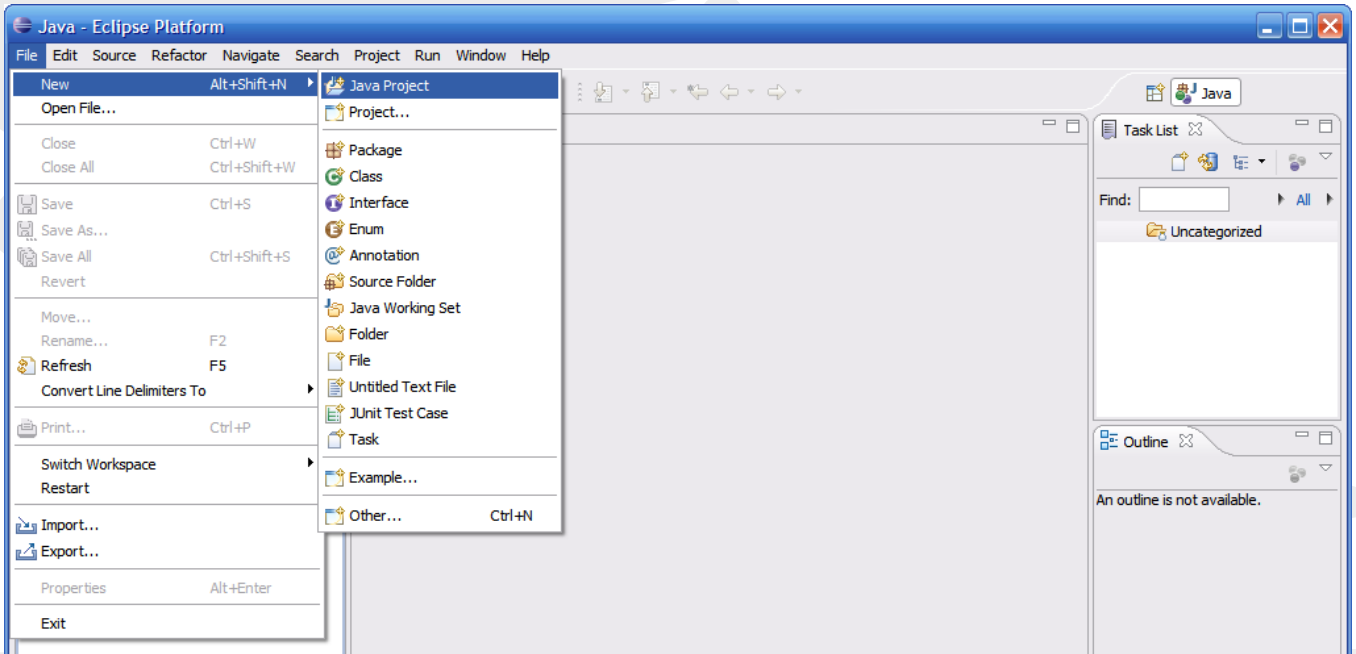
Where are my files?

- when launching Eclipse you need to choose the workspace
- the workspace identifies the root folder where all your projects will be saved



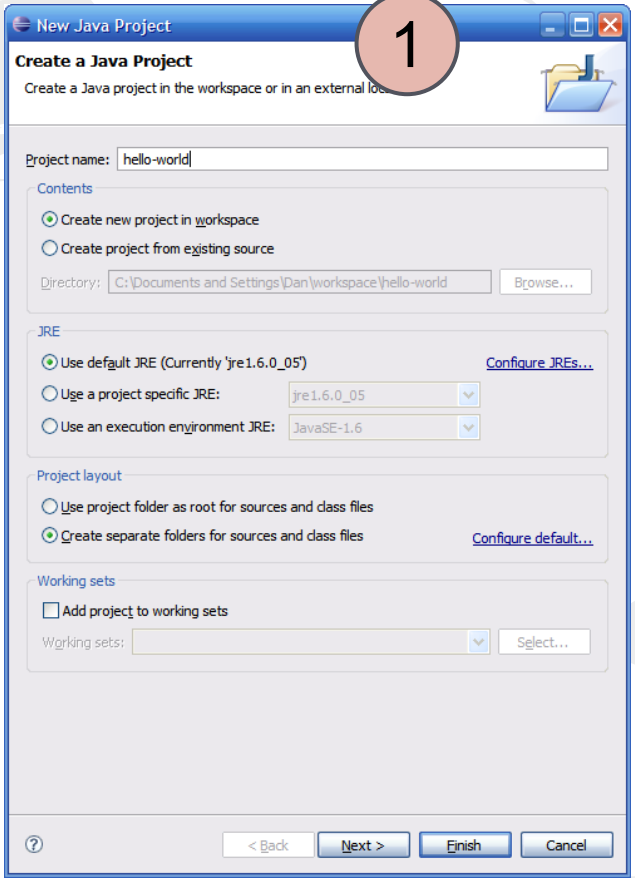
Creating a New Project (I)

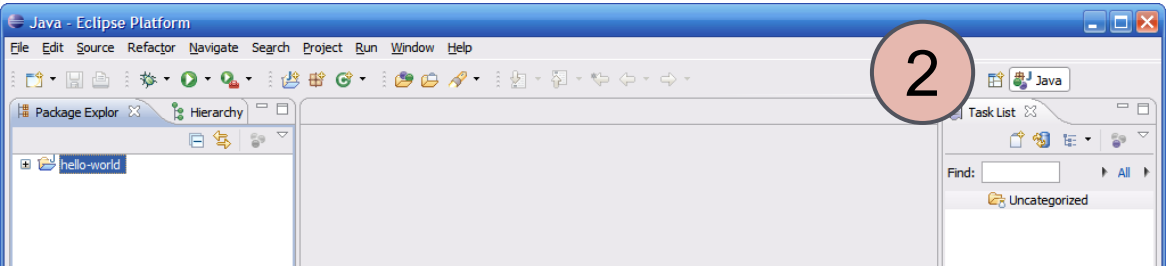
- all code in Eclipse needs to live under a project
- to create a project: File->New->Java->Project



Creating a New Project (II)

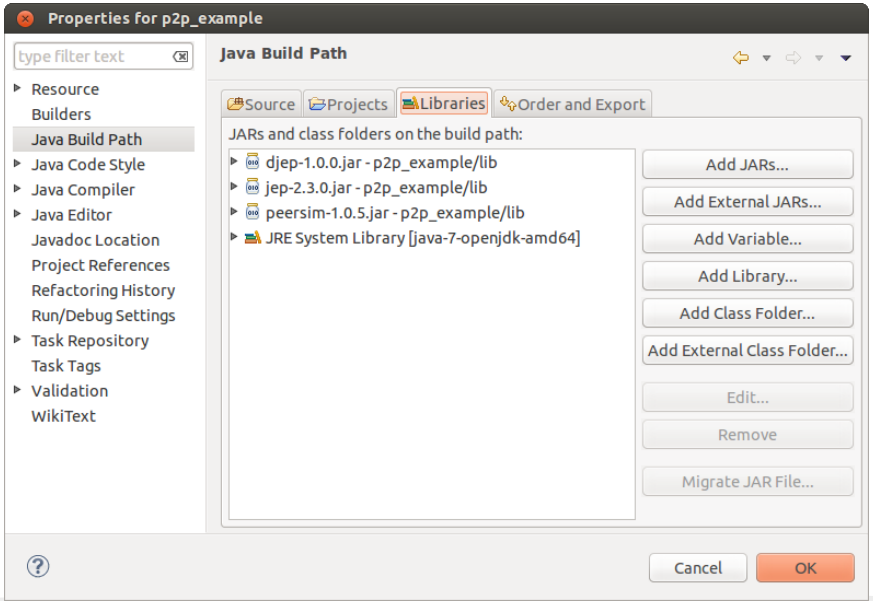
1. enter a name for the project, then click Finish
2. the newly created project should then appear under the Package Explorer
3. verify that a new folder has been created in your workspace folder





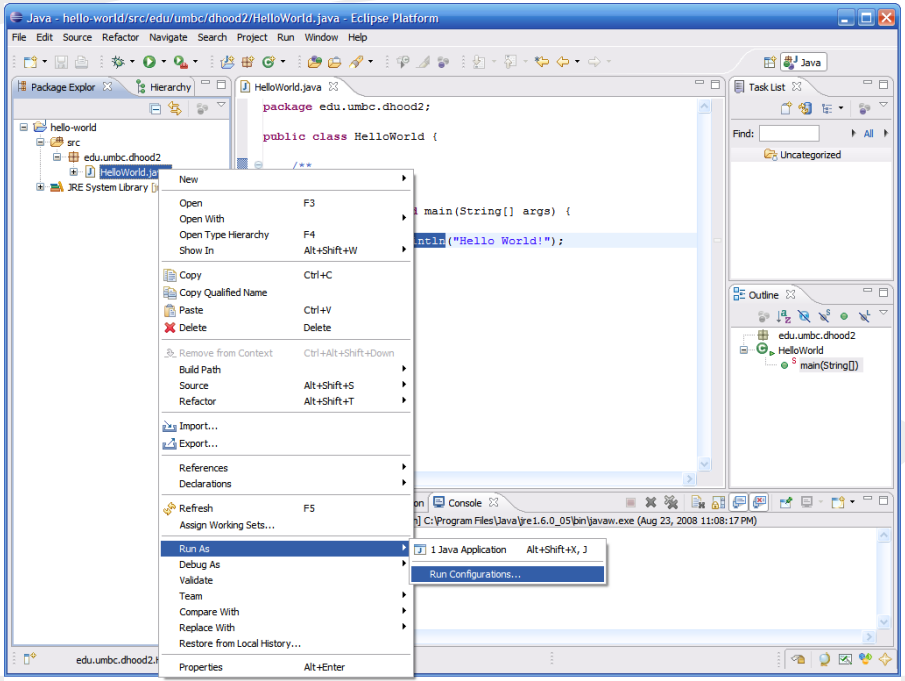
Project's properties

- find under Project -> Properties
- to add third-party libraries
- to set the correct Java library

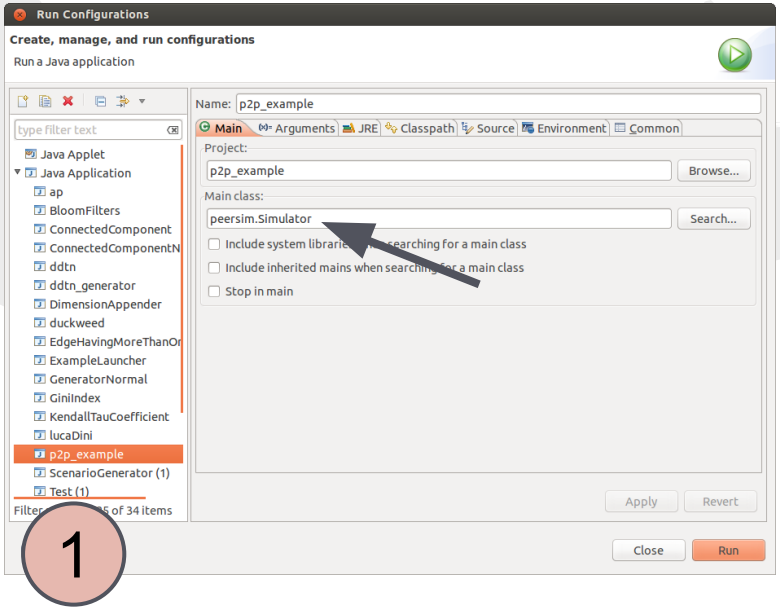


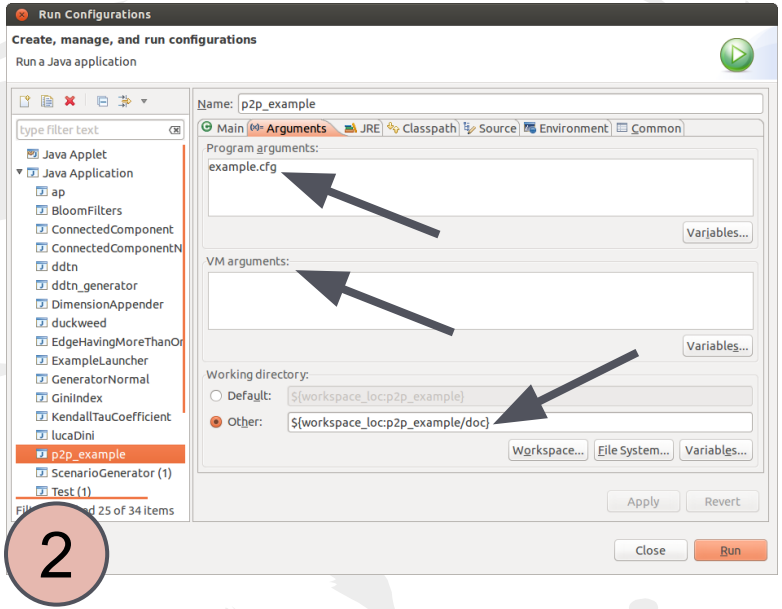
Run configuration (I)

- advanced options for executing a program can be found by right clicking the class then clicking Run As -> Run Configurations



Run configuration (II)



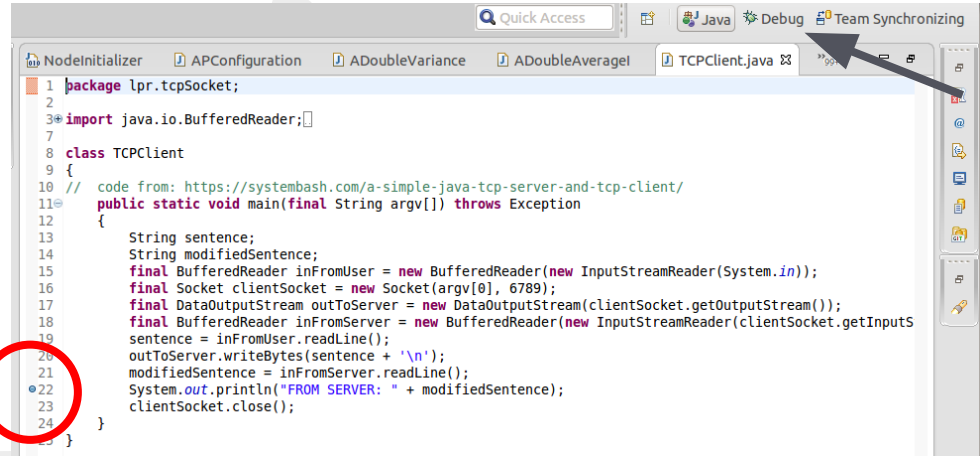


- set the main class

- set program arguments
- set JVM arguments
- set the working directory

How to debug (I)

- breakpoints:
  - cause the thread of execution to suspend and return to the debugger
  - to set a breakpoint double-click the left margin
- open the debug perspective



How to debug (II)

- step into 
- step over 
- watch variables