

CSSE2003

Software Engineering Studio

Tutorial Week 2

Semester 2, 2009

School of Information Technology and Electrical Engineering

The University of Queensland

Part 2: Using Eclipse

Goals:

1. To know how to obtain and install Eclipse
2. To know how to establish and manage a **basic** Eclipse Java Project

Getting to know Eclipse

Below is a short list of Frequently Asked Questions on Eclipse and its use in our course. Read through them to get an overview.

What is Eclipse? (From: <http://www.eclipse.org/home/newcomers.php>)

Eclipse is an open source community, whose projects are focused on building an open development platform comprised of extensible frameworks, tools and runtimes for building, deploying and managing software across the lifecycle.

What's included with Eclipse?

Eclipse includes most software engineering tools required for this course, especially a Java IDE, JUnit test tool, Ant build engine.

What's NOT included with Eclipse?

In order to **compile** and **debug** Java programs, you will need to install a Java **Source Developer Kit (SDK)**. We recommend the Java 5 SDK. You can download it from <http://java.sun.com>.

How do I install Eclipse?

You do not need to run a separate installer to set up Eclipse. Simply unzip the file you downloaded to a folder of your choice. In the extracted folder, double-click the eclipse.exe executable file. This will run Eclipse.

Can I use Eclipse @ home?

Yes, but we still recommend that you to attend the lab, as we like to stay in contact, like to see that your software builds and runs and as an incentive award marks to you for each tutorial you attend and actively participate in.

We do not provide any support for home PCs and dev environments. It is your responsibility to work out how to install and configure tools for your home system. It is also your responsibility to ensure that your assignments run in the lab. "This worked at home." is not sufficient to attain marks for a demonstration.

If you want to save the 100MB+ download quota Eclipse will cost you, consider using our cached copies available from the course website.

Managing Java Projects in Eclipse

The Eclipse Java development environment is flexible and powerful. This comes at the cost of some considerable effort in learning how to use it. In today's lab we will go through the Eclipse Java Introductory Tutorial. Even if you have used Eclipse in earlier courses, this tutorial will likely introduce you to some new functionality. Please work your way diligently and individually through the tutorial, because after this lab, we will assume that you are familiar with its content and hence will only point to it in response to questions after week three.

We will cover the tutorial in three work units. The first two should be completed in the lab; the third should be done as an individual preparation for next week. You will need to know the content of the third part in order to complete the course.



The first two work units end with a checkpoint. If you have reached the check point, please indicate this to the tutor and demonstrate your work.

At one point, you will be asked to download the source code for JUnit. This source is **external**. Use our mirror at

<http://www.itee.uq.edu.au/~csse2003/Tutorials/junit381src.jar>

to save on your download quota, if you want.

To carry out the tutorial,

1. Start the Eclipse executable. You will find a shortcut on your  system under **Start** → **Programs** → **Eclipse**.
2. When Eclipse starts, a dialogue box will open, and you will be asked about a “workspace location”. Press **Enter** to accept the default choice.
3. On the right side of the menu bar at the top of the Eclipse application, locate and drop the **Help** entry and click the **Help Contents** entry. The Eclipse Help System will open.
4. On the left pane, unfold the tree by clicking the node expanders  to show the path **Java** → **Development User Guide** → **Getting Started** → **Basic Tutorial**.
5. Click on **Basic Tutorial**.
6. Read the text in the right pane and carry out any instructions. If you see a label that reads “**Next Section:**” click on the link immediately following the label and continue the tutorial. Text beyond that label is only informative.
7. If you complete a section with one of the titles listed below, you have reached a checkpoint. Interrupt your work and call a tutor to present your progress. The work schedule to reach both points is tight.

Checkpoint sections:

- a. “Extracting a new method”
 - b. “Running your programs”
8. Outside the tutorial time, before next week's tutorial, continue to work through the **Java** → **Development User Guide** → **Getting Started** tutorial, up to and including the section entitled **Eclipse and J2SE 5.0**
 9. If you have any questions regarding the part of the tutorial to be reviewed in step 8), please post the questions during this week on the course news group. Tutors will respond to subject matter explained in the introductory tutorial during this week.