

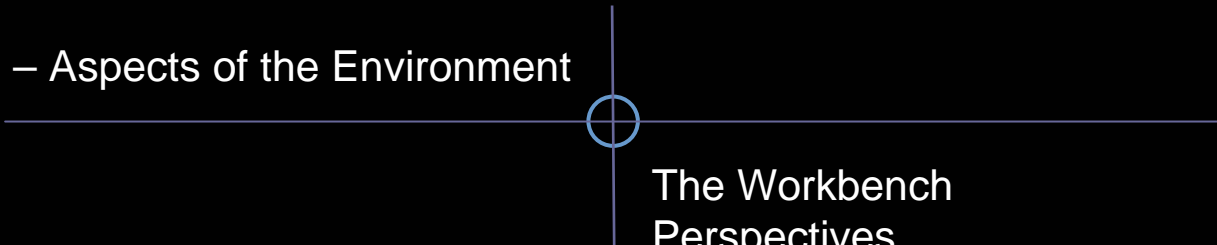


Developing Data Structures with Open Source Tools

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Module Two – The Eclipse Environment

Part B – Aspects of the Environment



The Workbench
Perspectives
The Java Editor
Code Assist
Navigator and Outline views
Updating

The Workbench

The Workbench is the main development area of Eclipse. (Remember Eclipse used to be called WebSphere Workbench.) This is where you navigate through your project, code, configure output, debug, and more.

A Workbench offers you one or more *perspectives*. A *perspective* contains editors and views that are specific to the project on which you are working.

- We'll be using the Java perspective a lot.
- There is a resource perspective, debug perspective, and many others.

You may have many perspectives open at once and easily switch among them using buttons near the top of the window, under the menus.

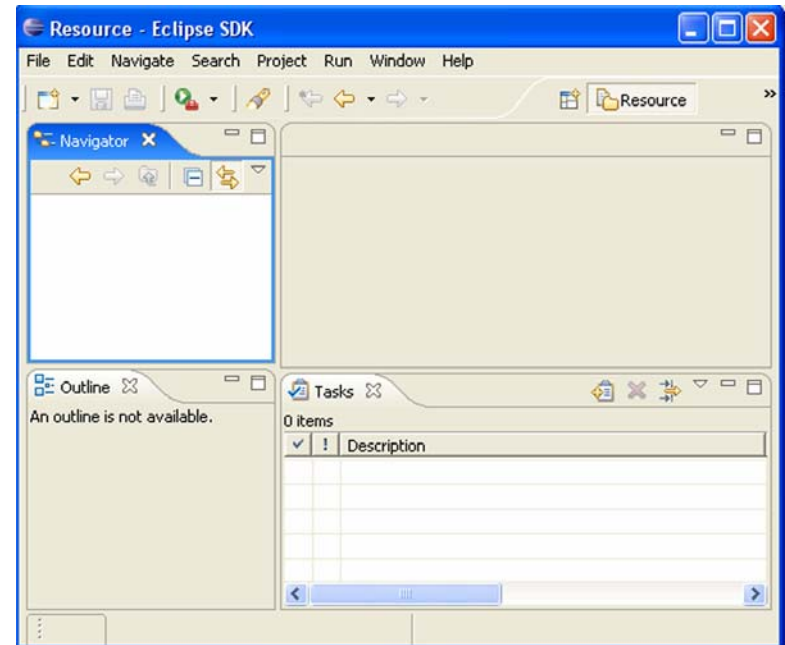


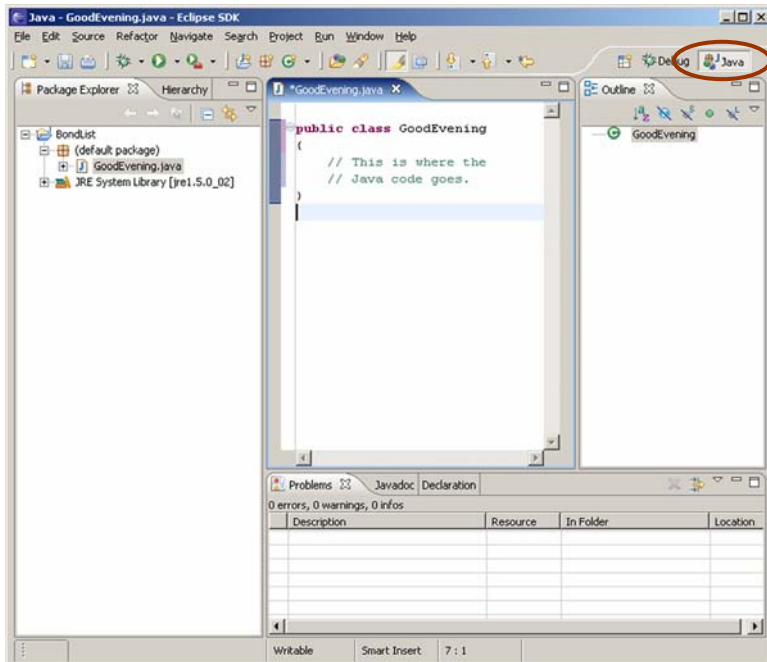
Image from the Eclipse on-line documentation (<http://help.eclipse.org/help31>)

Perspectives

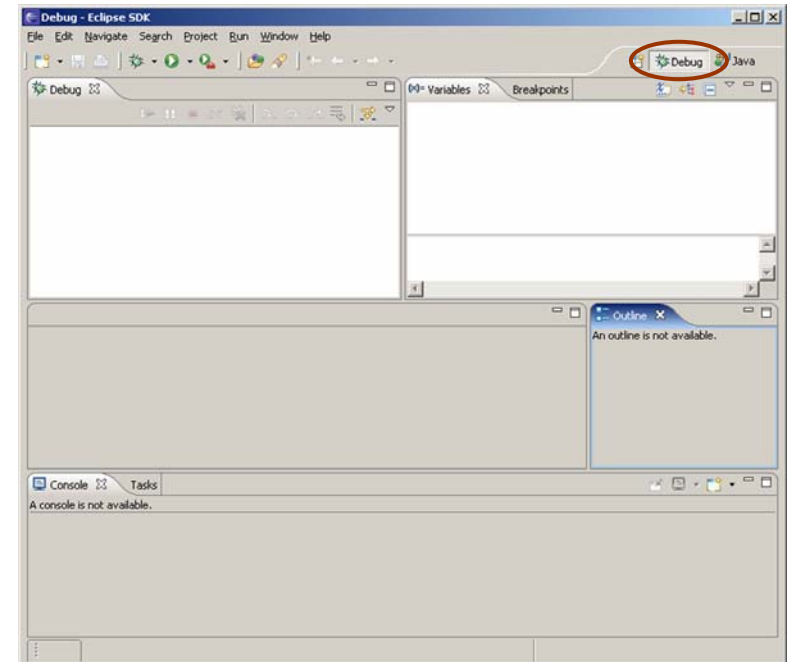
Two of the most common perspectives are Java and Debug.

- Note the perspective-changing buttons near the top, left corner of the window (circled).
- Each perspective on the Workbench contains different editors and views.

Java perspective



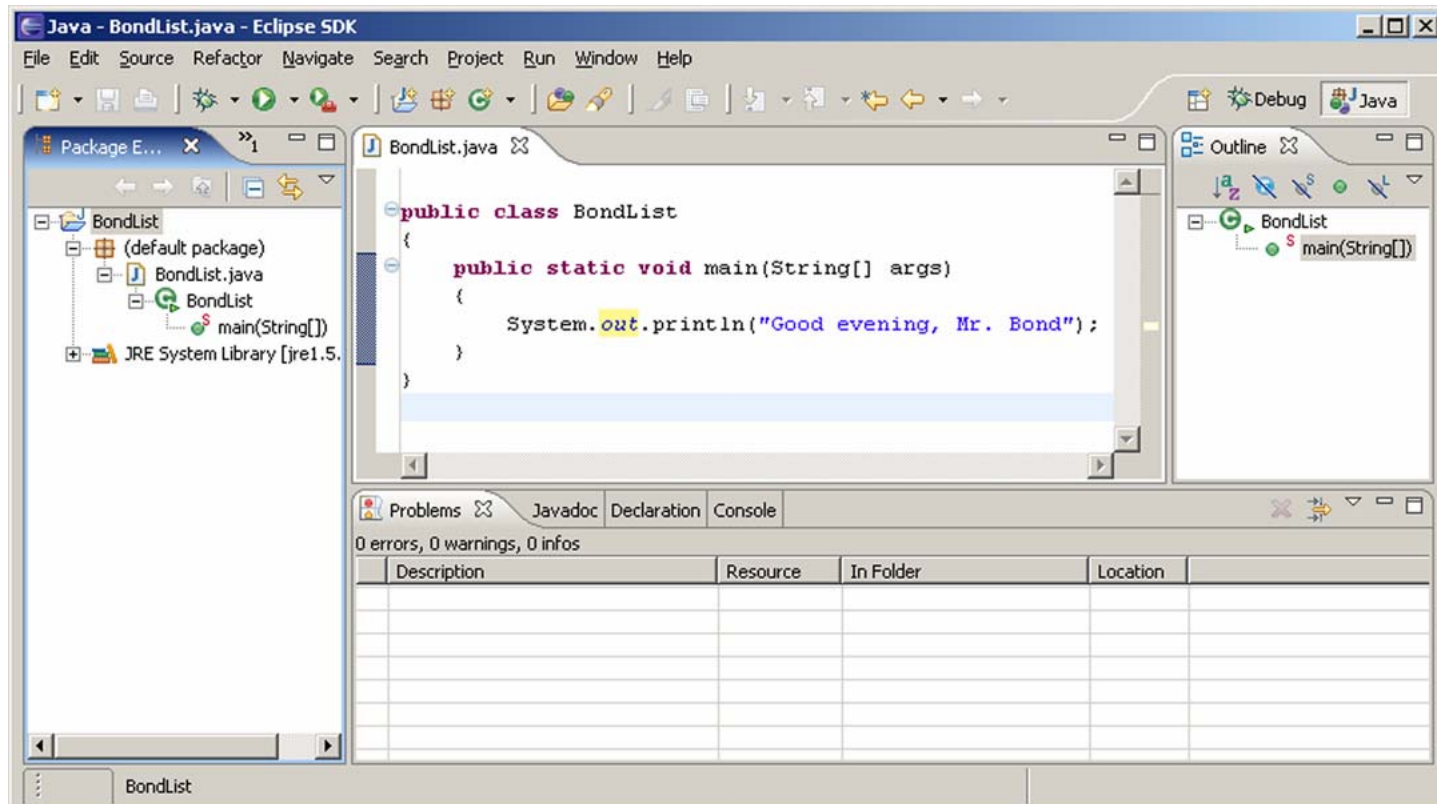
Debug perspective



The Java Editor

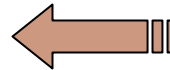
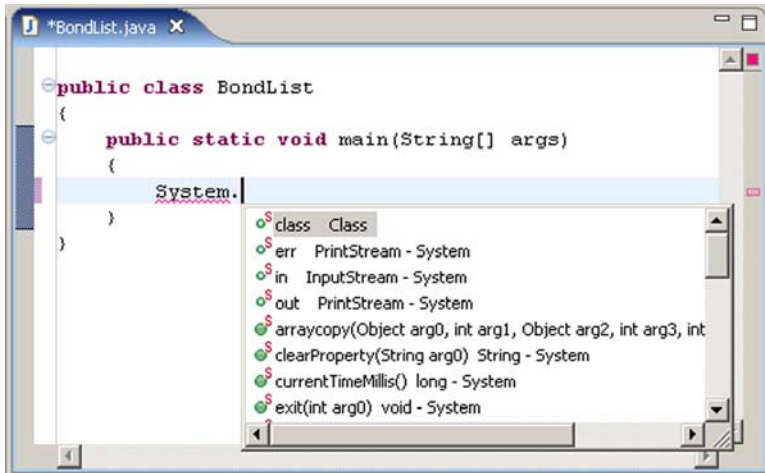
This is the default Java perspective. (You can customize it.) Note the following parts:

- Package, Outline, Problems, Javadoc, Declaration, and Console views
- Source code editor with syntax highlighting



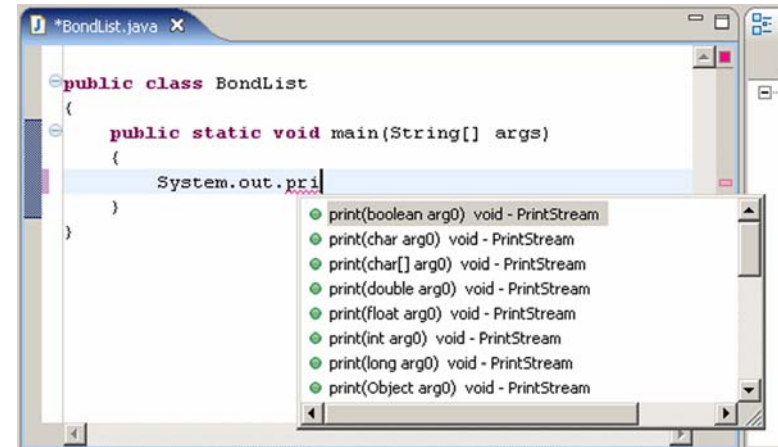
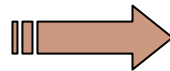
Code Assist

The Java editor will help you write your code. While it's still up to you to know what you want to do, the editor will help you remember the Java syntax using a feature called Code Assist.

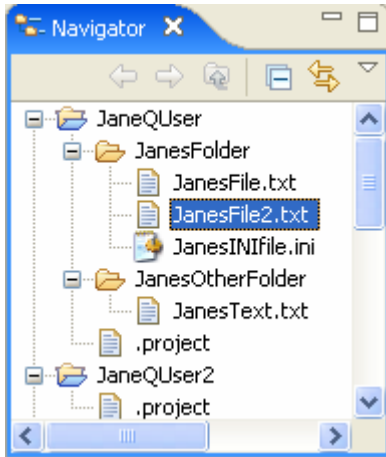


In this example, Eclipse prompts us with all the valid key words that can appear after "System."

Here, we've entered a few more characters so Eclipse refines our choices.

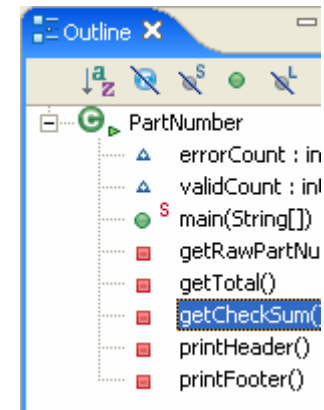


Navigator and Outline Views



The Navigator view shows the directory structure of your project. It's very much like any tree control in other environments. The Navigator view reflect the **physical layout** of your components.

The Outline view shows the code structure of your project. It's also a tree in structure, but reflects the hierarchical structure of your classes and objects rather than the physical structure of the files. The Outline view reflects the **logical layout** of your components.



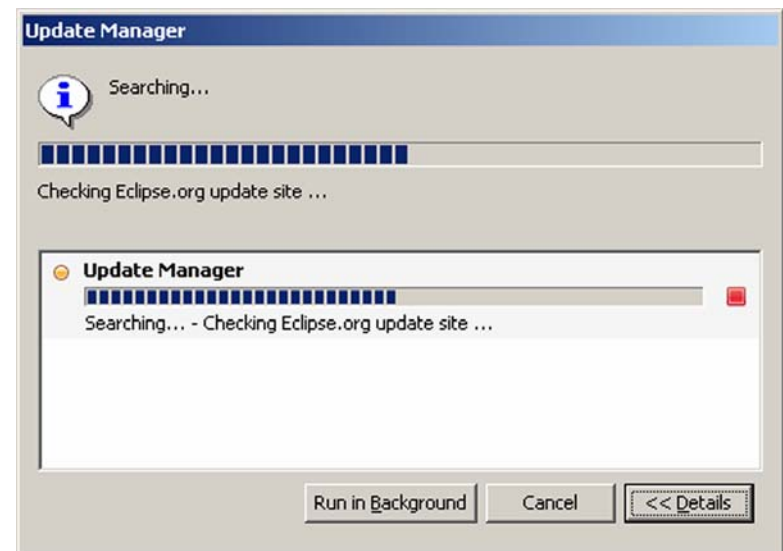
Updating Eclipse

Eclipse is constantly evolving. To stay current and benefit from the latest and greatest tools and improvements, you need to keep it up to date. Being that Eclipse so totally rocks, the developers have already thought of that and provided built-in functionality to do this in the form of the Update Manager.

On the main menu, click Help, Software Updates, Find and Install.

- At this point you will be given a choice to look for updates to currently installed features or to search for all new ones. Pick one and click the “finish” button.
- You may be asked to select a mirror site. Pick one and press “ok”.
- The Update Manager will now search for the updates you’ve asked for.
- If any are found, you will be given the opportunity to download and install them. Just follow the on-screen instructions.

It’s that simple. And cool.





Resources to Explore

Eclipse interactive on-line help: help.eclipse.org/help31/index.jsp





Self-review

What's an editor? A view? The Workbench?

Of the various parts of the UI, what's the difference among them?





Discussion Topics



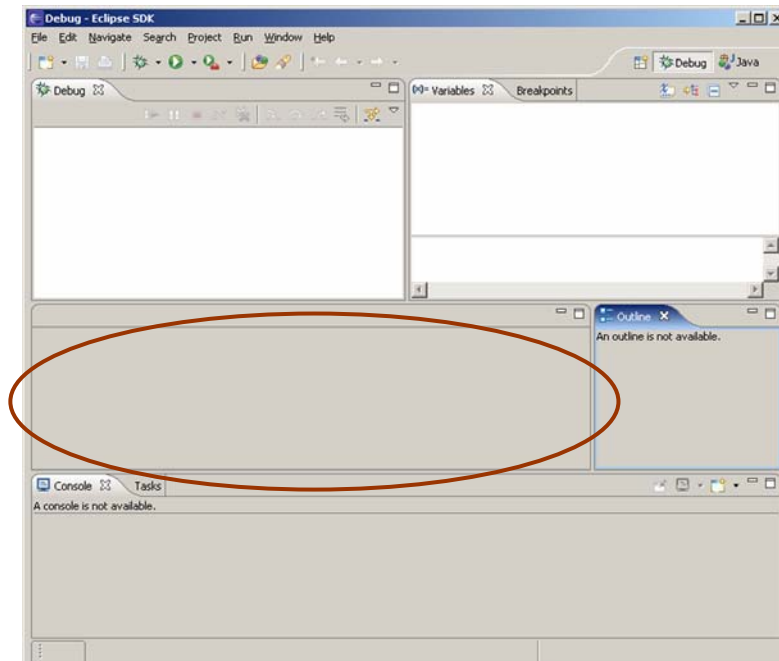
What additional tools or features can you find for Eclipse?

Do you know what a plug-in is? (You'll be using one in the sequel to this course.)

Homework



- 2b1 – Explain the difference between the physical and logical structure of a project.
- 2b2 – In the debug perspective below, what will be shown in the circled area that's currently blank when actual debugging is taking place?





Coming Attractions



It's time. We must finally step up to the place and attempt... oh no... can it be? Yes... it is... our **first project** !

(You can do it. I'll help. It'll be fun. Geek fun, but fun nonetheless.)