| Introduction to Eclipse |
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| INTRODUCTION |
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| Eclipse is open source software that provides an integrated development environment for JAVA. The software produced by the Eclipse Project is governed by the Common Public License. You may download this software for use on your computer.  Click on the Eclipse WebSite link on the right hand side of thia screen.  Click on "downloads," appearing on the left hand menubar. You will be presented with download sites for Eclipse 3.0. Download the software.  CAUTION: Prior to installing eclipse, you MUST install JAVA on your system. Eclipse will seek the Java SDK during installation. As well, for security reasons, make certain that you select the SDK 1.4.2\_05 or above. | [Eclipse WebSite](http://www.eclipse.org/)  [Download JAVA (NetBeans IDE + JDK 5.0 or JDK 5.0)](http://java.sun.com/j2se/1.5.0/download.jsp) |
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| THE WORKBENCH |
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| Install Eclipse on your PC.  CLICK on the Eclipse icon to open Eclipse.  The first time that you open Eclipse, you will be asked to select a directory for your program files. Note that, in the Penn State labs, you must select a directory that has write access. Subsequently, Eclipse will simply open the Workbench.  The workbench, the integrated development environment that is part of Eclipse, will be opened. You will develop your programs within this environment.  A Welcome Screen appears. On the upper, right hand side of this screen is the "WorkBench" icon.   * Click on the WorkBench Icon. |  |
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| Working in the Eclipse Environment.   * Eclipse refers to various open projects or resources as "perspectives." You may open more than one perspectives at any one time. * The name of the active perspective appears in the titlebar. The first time you will probably see the words, "Resource" in the titlebar. * As projects are developed, you will work in the JAVA Perspective * As you proceed, you may change perspectives (i.e. the workbench views). You can do this by clicking Window/Open Perspective and then choosing the perspective desired. |  |
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| CREATE A PROJECT:   * File * New * Project * Select Java Project. * Click on the Next Button * Insert a Project Name of your choice in the appropriate space. * Accept "Create Project in Workspace" or Browse to a desired directory for your project. * Click on the Next Button * Click Finish | A Java Project is created with the New Project Wizard.  You may want to work in "Navigator:" Window/Show View/Navigator. |
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| CREATE A PROJECT CLASS FILE:   * Select/highlight the Project. * File * New * Class * Insert a Package Name under the displayed Class Name. Package names are normally lower case and the same name as the primary class file. * Insert a Class Name * If this class is to drive the program (the main class), click on "public static class main..." Otherwise, do not check anything on the bottom of the form. * Click on Finish | A Java class file is created with the New Class Wizard. You will be returned to the Eclipse WorkBench and the Java editor will be on the screen. |
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| BUILDING YOUR PROJECT   * Select/highlight project from the Navigator or Package Explorer view. * Click on the Project on the MenuBar * Click on Build Project (make sure no other options on dropdown menu are checked) | Java byte code is created (or built). This is code that will be executed in the next step. |
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| RUNNING YOUR PROGRAM   * Select/highlight project desired from JAVA Projects listed on the left * Click on Run on the MenuBar * Click on Run As * Select either "java applet" or "java application," depending on your application. * Select your project name from the list that appears. | This step runs or executes your program. If there is output, you will see it on the screen. |
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| CREATE ADDITIONAL CLASS FILES WITHIN PROJECT:   * File * New (make certain that the Project created is selected) * Class * Insert the appropriate Package Name. This would be the same name as the one used for the other classes within your project. * Uncheck any package stubs that may be checked. | A Java class file is created with the New Class Wizard. You will be returned to the Eclipse WorkBench and the Java editor will be on the screen. |
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