

Eclipse (Indigo) Instructions For Java Programs

Getting Started

 Before you begin working with Eclipse you must first define your workspace using the Workspace Launcher dialog box. At this point you will need to instruct Eclipse as to where your Java Projects are going to be saved and/or are stored. When you are working in the Business/CS Computer Lab and Classrooms, make sure that you specify whether your files are located in either your Home Directory (Z: drive) or your USB drive.

| Workspace Launcher | × |
|--|------------------|
| Select a workspace | |
| Eclipse stores your projects in a folder called a workspace. Choose a workspace folder to use for this session. | |
| Workspace: z:\Eclipse\Java | ▼ <u>B</u> rowse |
| Use this as the default and do not ask again | OK Cancel |

2. Press OK to continue.

Creating a NEW Java Project

1. Select File > New > Project.. from the main menu. This will open the New Project dialog box.



2. Select the Java Project from the list of project types in the New Project dialog box.

| | New Project | |
|---|---|--------|
| • | Select a wizard Create a Java project Wizards: type filter text ↓ Java Project from Existing Ant Buildfile Plug-in Project ↓ General ↓ General | |
| | ? < Back Next > Finish | Cancel |

- 3. Press the **Next** button to continue.
- 4. Enter the Name of your <u>NEW</u> Java project in the **Project Name** field in **New Java Project** dialog box.

| 💽 New Java Project | - • • |
|--|--------------|
| Create a Java Project Create a Java project in the workspace or in an external location. | |
| Project name: MyJavaProject | |
| ✓ Use default location Location: Z:\MyJavaProject | Browse |
| | |
| O Use a project specific JRE: jre6 | |
| Use default JRE (currently 'jre6') | nfigure JREs |
| Use project folder as root for sources and class files O Create separate folders for sources and class files | gure default |
| Working sets | |
| Add project to working sets Working sets: | Select |
| | |
| | |
| (?) < Back Next > Finish | Cancel |
| | Cancer |

5. Press the **Finish** button to complete the Java Project setup process.



Your will then be prompted by the following dialog box:

| 🔘 Орег | n Associated Perspective? | × |
|------------|--|---|
| \bigcirc | This kind of project is associated with the Java perspective. | |
| | This perspective is designed to support Java development. It offers a Package Explorer, a Type Hierarchy, and Java-specific navigation actions. | |
| | Do you want to open this perspective now? | |
| 🔲 Ren | nember my decision | |
| | Yes No | |
| Voc hut | ton to continue | |

6. Press the **Yes** button to continue.

At this point in time your <u>NEW</u> Java **Project** should appear as an asset in the **Package Explorer** panel on the left hand side of your **Eclipse** application window.

| Java - Eclipse File Edit Navigate Search Project Run | Window Help | | | |
|---|-------------------------------------|--|----------|--|
| 🔁 • 🗌 🕼 🗁 🗇 • 💊 • | 瞪 🞯 🔹 😕 😂 🛷 👻 🖢 🖓 | $\bullet \Leftrightarrow \diamond \bullet \diamond \bullet$ | | 😭 🐉 Java 😤 Java EE |
| 🛱 Package Explorer 🛛 🗖 🗖 | | Task List 🛛 🗖 | 🚳 Welcor | me 🛛 🗖 🗖 |
| □ 🔄 🖨 🔽 | | | | 🟠 🔶 🌳 🖍 🖺 |
| | | Find Q All All Activate | 0 | Overview Get an overview of the features |
| | | Connect Mylyn S <u>Connect</u> to your task and ALM tools or <u>create</u> a local task. | | Tutorials Go through tutorials |
| | | An outline is not available. | 1 | Samples Try out the samples |
| | | | | What's New Find out what is new |
| | | | - | Workbench Go to the workbench |
| | 🖹 Problems 🛛 🥥 🖉 Javadoc 🗟 Declarat | ion 🕞 🗸 🗆 🗖 | | |
| | 0 items | Resource Path | | |
| | | | | |
| | • | 4 | | |

7. Click on the b to expand your Project so that you can see all of your Project assets.

| ſ | Java - Eclipse | |
|---|---|----------|
| | <u>File Edit Source Refactor Navigate Sea</u> | rc |
| | 🔁 • 🛛 🕼 🗁 🛭 🔅 • 🔾 • 🗛 • | + |
| | 📕 Package Explorer 🛛 🗖 🗖 | |
| | E 🔄 MylavaProject | |
| | C → SIC | |
| | JRE System Library [JavaSE-1.6] | |
| | | |
| | | ` |

8. Right click on the src folder located in your Project folder and select New > Class.

A New Java Class dialog box should appear on the screen at this point in time.

9. In the **Name** field, enter the name of the new Class you wish to create.

| 🥘 New Java Class | | - • • |
|-------------------------|--|-----------------|
| Java Class | efault package is discouraged. | C |
| Source fol <u>d</u> er: | MyJavaProject/src | Br <u>o</u> wse |
| Pac <u>k</u> age: | (default) | Bro <u>w</u> se |
| Enclosing type: | | Browse |
| Na <u>m</u> e: | MyNewClass | <u> </u> |
| Modifiers: | public O default O private O protected abstract I final static | F |
| Superclass: | java.lang.Object | Brows <u>e</u> |
| Interfaces: | | <u>A</u> dd |
| | | Remove |
| Which method stub | s would you like to create? | |
| | public static void main(String[] args) | |
| | Constructors from superclass | |
| De veu weette ede | ✓ Inherited abstract methods | |
| Do you want to add | Generate comments | |
| | | |
| ? | Finish | Cancel |

10. Next, **select** the **public static void main(String[] args)** option so that it is selected. This will add the main method to your program automatically.

| New Java Class | x |
|--|---|
| Java Class The use of the default package is discouraged. | |
| Source fol <u>d</u> er: MyJavaProject/src Br <u>o</u> wse | |
| Pac <u>k</u> age: (default) Bro <u>w</u> se | |
| Enclosing type: Browse | |
| Na <u>m</u> e: MyNewClass | |
| Modifiers: Image: Contract | |
| Superclass: java.lang.Object Brows <u>e</u> | |
| Interfaces: | |
| <u>R</u> emove | |
| Which method studs would you like to create? | |
| public static void main(String[] args) | |
| Constructors from superclass | |
| ✓ Inherited abstract methods Do you want to add comments? (Configure templates and default value here) ☐ Generate comments | |
| | |
| ? Einish Cancel | |

11. Press the **Finish** button to continue and create your new Java Class.

At this point in time the **NEW Java Class** should open up in a new **Tab** in the **Eclipse application** window and you can begin adding new source code to your project. *Please note that if you require additional workspace, close the Welcome Tab* – *this will expand the source sode editing tab.*



Saving a Java Project / Source File

- 1. Select the Tab that contains the Source Code you wish to save.
- 2. Select **File > Save** from the main menu. This will automatically save the source code in that is open in the active tab of your **Eclipse** workspace.

Notes About Saving Your Files

- If you want to save a copy of your source code in a new file, you will want to choose the **Save As..** option from the **File** menu.
- If you have more than one file open that you need to save, you may use the **Save All** option from the **File** menu and this will update all of your open files.
- <u>When saving your files in the Business/CS Computer Lab and Classrooms</u>, make sure that you are saving your files to either your Home Directory (Z: drive) or your USB drive otherwise you may lose your documents.

Compiling and Running a Java Program

1. To **Build and Run your program**, press the Run icon (^O) on the main menu.

The Save and Launch dialog box should then appear on the screen:

| Save and Launch | |
|--------------------------------------|---------------|
| Select resources to save: | |
| MyNewClass.java | |
| | |
| | |
| | |
| | |
| | |
| | |
| <u>S</u> elect All | Deselect All |
| Always save <u>r</u> esources before | ore launching |
| 🥐 ок | Cancel |
| <u> </u> | |

2. Press **OK** to continue.

If there are any problems with your program you will be prompted by a Errors in Workspace dialog box as well as a list of the build errors in the Problems Tab located at the bottom of your Eclipse application window.

| | Errors in Workspace | | | × | | |
|---------------------------|---------------------------------------|---------------|---------|----------|-------|--|
| $\boldsymbol{<}$ | Errors exist in required | l project(s): | > | | | |
| | MyJavaProject | | R | | | |
| | Proceed with launch? | | | | | |
| | 🔲 Always launch without aski | ing | Proceed | Cancel | | |
| Problems 🕅 🙆 | lavadoc) 🚯 Declarition 🖃 (| Console | | | ⊽ | |
| 1 error 0 warnings 0 othe | | console | | | 0 | |
| Description | · · · · · · · · · · · · · · · · · · · | Resource | Path | Location | Туре | |
| 😣 Errors (1 item) | | | | | | |
| | | | | | | |

If your program has been built successfully, you will see the results at the bottom of your Eclipse application window in the **Console Tab** as shown below which indicate that your program has been built and run successfully:

| 🖹 Problems 🍘 Javadoc 🔞 Declaration 🖃 Console 🕴 🔰 😽 🗱 🙀 🗐 🖅 👘 🕫 👘 👘 👘 👘 | , 🗆 |
|---|-----|
| <terminated> MyNewClass [Java Application] C:\Program Files\Java\jre6\bin\javaw.exe (Sep 20, 2011 10:53:00 AM)</terminated> | |
| Hello Java World! | * |
| | |
| | |
| | |
| | |
| | - |
| | |

Closing a Java Project

1. Select **File > Close All** from the main menu. This will close the files you currently have open in the Eclipse application window.

If the files you are closing have not been saved, you will be prompted to do so via the dialog box.

| Save Save | Resource |
|-----------|--|
| ? | 'MyNewClass.java' has been modified. Save changes? |
| | Yes No Cancel |
| | |

2. Press the **Yes** button to continue.

Upon confirmation, all of your open files should be closed and your File View panel should be void of information. You can now either close **Eclipse** OR open a <u>NEW</u> or existing Java Project.

Exiting Eclipse

1. Select **File > Exit** from the main menu. At this point Eclipse will close.

Opening an EXISTING Java Project

Typically Eclipse will remember any projects that you have worked on providing you have worked on them in that particular environment which means you need only find the name of the project you have worked on in the list of projects that appears in the **Project Explorer** tab.

If the project does not appear in the Project Explorer tab you will need to import the project using the following instructions:

1. Select **File > Import..** from the main menu. This will open the **Import** dialog box.

| Choose import source. | 2 | |
|---|---|--|
| Select an import source: type filter text ▷ General ▷ Disconstructure ▷ Disconstructure <tr< th=""><th></th><th></th></tr<> | | |
| ▷ ₯ Run/Debug ▷ ₯ Tasks ▷ ₯ Team ▷ ∞ Web ▷ ₯ Web services ▷ ₯ XML | | |
| | | |

2. Expand the General Option and select the Existing Projects into Workspace option

| reate new projects from an archive file or directory. | |
|--|---|
| elect an import source: | |
| ype filter text | |
| Archive File Existing Projects into Workspace File System Preferences <l< th=""><th></th></l<> | |
| Carl Web | • |

- 3. Press Next to continue.
- 4. In the Import dialog box, **Select the root directory** of the Java Project you wish to import by Browsing for it using the **Browse** button

| M Import | |
|---|------------------|
| Import Projects Select a directory to search for existing Eclipse projects. | |
| Select root directory: Select <u>a</u> rchive file: Projects: | Browse Browse |
| | Select All |
| Copy projects into workspace Working sets Add project to working sets Working sets: | S <u>e</u> lect |
| (<u>Back</u> <u>N</u> ext > <u>Finish</u> | Cancel |

5. At this point in time you will be prompted to locate your Java Project via the Browse for Folder dialog box:

| Browse For Folder | | | | |
|---|--|--|--|--|
| Select root directory of the projects to import | | | | |
| | | | | |
| 🖌 👝 Removable Disk (G:) | | | | |
| Imetadata | | | | |
| ⊳ 🍌 bob2 — | | | | |
| CodeBlocksTest | | | | |
| 🔺 🍌 Eclipse | | | | |
| a 🌗 Java | | | | |
| 🛛 🕒 .metadata | | | | |
| MyJavaProject | | | | |
| 🛛 🕒 .metadata 🔍 🔻 | | | | |
| Folder: MyJavaProject | | | | |
| Make New Folder OK Cancel | | | | |

6. Press **OK** to confirm your Java Project folder.

7. In the **Import** dialog box, press the Finish button to complete the Java Project import process:

| Import | | |
|---|-----------------------------------|---------------------------------------|
| Import Projects Select a directory to sear | ch for existing Eclipse projects. | |
| Select root directory: Select archive file: Projects: | G:\Eclipse\Java\MyJavaProject | Browse Browse |
| WyJavaProject (G | :\Eclipse\Java\MyJavaProject) | Select All Deselect All Refresh |
| Copy projects into wo Working sets | rkspace ing sets | • Select |
| ? | < Back Next > Finis | h Cancel |

8. At this point your Project should be open in the Project Explorer tab of your **Eclipse Workspace** and you can continue adding source code to your Java Project.