# **YOUR Software Engineering ENVIRONMENT**

We will be using a different environment for this course. To do projects of the size and nature needed for this course, we need a state of the art Interactive Development Environment with integrated components such as a

usable GUI interface, acceptable database connection, language compiler, and interactive development environment (IDE).

The environment defined for your use in this course can be placed on your own computer. The instructions are in the next few sections. The components are as follows:

IDE - ECLIPSE (free, heterogeneous and expandable) JIGLOO – GUI interface (free, easy to use) DERBY – Database System (free, easy to use)

Eclipse has hundreds and hundreds of free plugins. It has language copilers (C, C++, Java, Ruby, Eiffle, Smalltalk, version of Ada, Object Pascal (whew), etc., refactoring tools, UML tools, upper CASE, lower CASE, code validators, pattern searchers, code structuring tools, performance evaluators, etc. It is slick slick slick. Free plugin can be found at various places. Just Google "Free Plugin ECLIPSE". Here are a few that were up today but everyday new people are setting up sites with more and more items. The first two links have the standard things. Alphaworks changes often. New innovative software is placed on this site and often vendors buy the rights to the software and enhance it for a marketable product. So check it often to get neat software.

http://www.eclipseplugincentral.com/ Plugins for Eclipse www.alphaworks.ibm.com

Below are the instructions for creating your environment. You will not need it right away but I thought I would let you get it set up in case you have any problems.

# CREATING THE ECLIPSE ENVIRONMENT WITH JIGLOO (GUI INTERFACE) AND DERBY (SQL DATABASE)

## 1. DOWNLOAD NECESSARY ZIP FILES

Before you begin, create a folder called "Java" under "My Documents" so you can easily remove them when these two courses are over. Check out <u>Developer Resources for Java</u> <u>Technology</u> for the Java compiler (if needed) and other supporting materials.

## 1.a. Download Eclipse Zip File

First, download the eclipse environment from http://www.eclipse.org/downloads/.

Choose Eclipse Classic -windows option - if you use a different operating system (Linux or MacOSX) this is where you would make a different choice however, this procedure has not been tested. The following should appear:



Choose save. You will be prompted for a save location. Save it in your folder called 'Java' under 'My Documents' to allow simple removal of this IDE zip files and executables in the future. Depending on your throughput, downloading may take a while since the zipped file is more than 100 MB.

## 1.b. Download JIGLOO Zip File

Now, download JIGLOO from <a href="http://www.cloudgarden.com/jigloo/">http://www.cloudgarden.com/jigloo/</a> and scroll down until you reach "Installation using the zip file" as shown below:

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Jigloo	You should use the Update Manager in Eclipse to download and install Jigloo - just open it (under "Help->Software Updates->Find and Install"). You will need to create a new remote site entry in the update manager for the Jigloo update-site - the url is: http://cloudgarden1.com/update-site For more detailed help, read this											
Features Screenshot	Installation using zip file: Alternatively, you can download the zip file from <u>here</u> . Unzip it into the eclipse folder so that the structure is eclipse/plugins/com.cloudgarden.jigloo_3.9.5											
License Download and Installation												
Help / FAQ Examples	Examples											
Documentation	You can create examples using Eclipse's "New" wizard - in Eclipse, choose "File->New->Other" and under "GUI Forms" you will see an "Examples" section.											
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Feedback Revision History	The documentation bundle "Jigloo GUI Builder User's Guide" is contained in the Jigloo plugin - after you install Jigloo, open up the "Help->Help Contents" menu in Eclipse and go to the entry for "Jigloo GUI Builder Guide".											
	It is recommended you look at the "Quick Start" section in the Jigloo documentation before using Jigloo in earnest. Also, please read the FAQs, which address some common questions/problems.											
	If you will be running SWT applications inside Eclipse, it is important that you read the "Preparing your project to use the SWT classes" part of the 📃											
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Click on the 'here' link. The following screen will appear:

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It may be necessary to click on the 'here' link. Save the file in the same 'Java' folder as the ECLIPSE zip file.

# 1.c. Download DIRBY Zip File

Last, go to the Derby website <u>http://db.apache.org/derby/releases/release-10.2.2.0.cgi</u>. Scroll down to the 'Distributions' area. There is a paragraph on two separate Eclipse plugins for Derby as shown near the bottom of the screen print below:



Download both Eclipse plugins labeled <u>derby core plugin 10.2.2.485682.zip</u> and <u>derby ui plugin 1.1.0.zip</u>. Because of the frequency of releases, do not be alarmed if the release number is greater than these and still download. Save in the same 'Java' folder as the Eclipse and JIGLOO zip files.

# 1. CREATING the ENVIRONMENT

Look in the 'Java' folder in which the zip files were saved. There should be the following:

Java Compilers Four additional zip folders: one for Eclipse, one for JIGLOO and two for Derby.

Make sure all these zip folders are present before you continue.

## 1.a Unzipping your Eclipse File

- (1) Unzip the Eclipse file by right clicking on the Eclipse folder
- (2) Choose extract all.
- (3) When the extraction wizard appears. Click Next.
- (4) You will be prompted to specify the location to unzip the data.
- (5) Choose the default which will unzip the data into 'Java/Eclipse-SDK-3.3-Win32/Eclipse' folder. (Note that the Eclipse-SKD-3.3-Win32 portion of the file directory structure may change based on the current version of Eclipse downloaded from the website and the operating chosen to download.)
- (6) Click 'Finish'.

## 1,b, Unzipping JIGLOO

- (1) Proceed on by right clicking on the JIGLOO zip file and choosing 'Extract All'.
- (2) Click 'Next' in the extraction wizard.
- (3) You will be prompted to specify the location to unzip the data a. DO NOT CHOOSE THE DEFAULT THIS TIME
- (4) Click Browse and go to the 'Java/ Eclipse-SDK-3.3-Win32/Eclipse' folder.
- (5) Once this exact folder is selected, Click 'OK".
- (6) Click "Next" Unzip will proceed.
- (7) After the Unzip has completed, verify that the folder 'com.cloudgarden.jigloo\_4.0' exists in the 'Java/Eclipse-SDK-3.3-Win32/Eclipse/Plugins' subdirectory.
- (8) Click "Finish"

## **1.c. Unzipping DEBRY**

For each of the Derby zip files, (remember there are two) unzip as follows:

- (1) (Right click on the zip file, choose 'Extract All', Click 'Next'.
- (2) You will be prompted to specify the location to unzip the data'
  - a. DO NOT CHOOSE THE DEFAULT

(3) Click Browse and go to the 'Java/Eclipse-SDK-3.3-Win32/Eclipse' folder.

(4) Once the exact folder is selected, Click 'OK'.

(5) Click 'Next'. Unzip of Derby will proceed.

(6) Click "Finish"

After unzipping both DERBY files, verify that the folders under

'Java/Eclipse-SDK-3.3-Win32/Eclipse/Plugins/' exist:

org.apache.derby\_core\_plugin\_10.2.2

org.apache.derby\_ui\_plugin\_1.1.0

org.apache.derby.plugin.doc\_1.1.0