

Using ADA with GNATbench

- (1) **First install GNAT-GPL:** <http://www.radford.edu/~nokie/classes/320/compileInstall.html>.
- (2) Make sure you have Eclipse SDK Version 3.4 + (this will be named **Ganymede** or **Galileo**).
 - a. You can download the latest version of Eclipse SDK from: <http://www.eclipse.org/downloads/>
 - b. I used the **Eclipse classic version** which is about 150 Mb – you will find this on the above website – this was the last software on that website when I downloaded it.
- (3) Once Eclipse has been installed – make note of the folder where Eclipse is located. If you already have Eclipse – look for the **eclipse** folder. When you enter this folder and follow the sub-folders you will see the sub-folders: **plugins, features** -- *make a note of their locations, i.e., where they are located. You will need to copy the GnatBench plugings and features into these subfolders in step 6f below.*
- (4) Start up eclipse and browse to Help → Software Updates.
- (5) **Install C/C++ development environment (required for ADA):** In the “Installed software” tab make sure you see Eclipse C/C++ development tools. If you don’t then click on “Available Software” tab.
 - a. Click on the “Add Site” button.
 - i. If you have Ganymede, enter the URL:
<http://download.eclipse.org/tools/cdt/releases/ganymede>
 - ii. If you have Galileo, enter the URL: <http://download.eclipse.org/tools/cdt/releases/galileo>
 - b. Click on the + next to “Ganymede Update Side” or “Galileo update site”.
 - i. Look for C and C++ development. Click on the check box next to it to select it.
 - ii. Click on “Install” (top right corner).
 - c. You will need to restart eclipse after the installation is over.
- (6) **Install GNATbench and gnumake (required for ADA):**
 - a. This requires the entire GNAT GPL that you installed in step (1)
 - b. Goto the website: <https://libre.adacore.com/libre/download/>
 - c. Create an account for yourself and login.
 - d. Where it says select your platform: choose **x86-windows** if you plan to run on Windows.
 - e. Scroll down select **gnatbench-2.3.0-bin-eclipse.zip**.
 - f. Scroll down to **Tools**→ **select gnumake....exe file**.
 - g. **Download both the files.**
 - h. Now for, gnatbench-2.3.0-bin-eclipse.zip
 - i. Let it download and unzip it. When it is installing – make note of the folder it installs itself into – this is important.
 - ii. Go to that folder and you should see two subfolders: features and plugins.
 - iii. Copy the files from features and plugins into the respective sub-folders of the same name in Eclipse (refer to step 3 above). into the features subfolder of eclipse
 - i. **Now for, gnumake, simply unzip the file you downloaded.**
 - i. Look for the folder where GNAT has been installed – most likely C:\GNAT
 - ii. Copy the gnumake....exe file into the bin\ sub-folder and *rename it to make.exe*.
- (7) **Starting and compling ADA using Eclipse.**
 - a. Once you start Eclipse, goto **File** → **New Project**.
 - b. Select **Ada** → **Ada Project**. Click next.
 - c. Enter a project name of your choice.

- d. Enter the name of the Ada main subprogram unit (e.g., hello1).
- e. You can choose to select the “**Generate the file containing that Ada main subprogram**” and “**Generate Ada main subprogram as Hello World application**” – Eclipse will basically create a shell ADA program (similar to the way it creates a shell main method in Java).
- f. Click **next**.
- g. Click **next**.
- h. Select **gnatmake**.
- i. **To build the project –**
 - i. **Click Project → Build Project** (if this option is disabled, it is because you probably have the build automatically option set. First disable that).
- j. **To run:**
 - i. **Highlight the project name.**
 - ii. **Click on Run → Run as local C/C++ application.**
 - iii. **Select the .exe file and click OK.**