

Installation of Eclipse and Virtual Laboratory Tools

Prepare for Eclipse Installation:

- 1) Since Eclipse has been developed in Java, Eclipse requires the JVM (Java Virtual Machine) to run. Check if the Java Virtual Machine has been already installed on your machine. To do so, open the DOS command window and type the command `java -version`. If the Java Virtual Machine is available on your machine the command will produce something like this.

```
C:\Users\Paolo>java -version
java version "1.7.0_03"
Java(TM) SE Runtime Environment (build 1.7.0_03-b05)
Java HotSpot(TM) 64-Bit Server VM (build 22.1-b02, mixed mode)
```

- 2) If the Java Virtual Machine is not present, download the version JDK-7u3 at <http://www.oracle.com/technetwork/java/javase/downloads/jdk-7u3-download-1501626.html> Select the correct version for your operating system and install it on your machine.

Java SE Development Kit 7u3

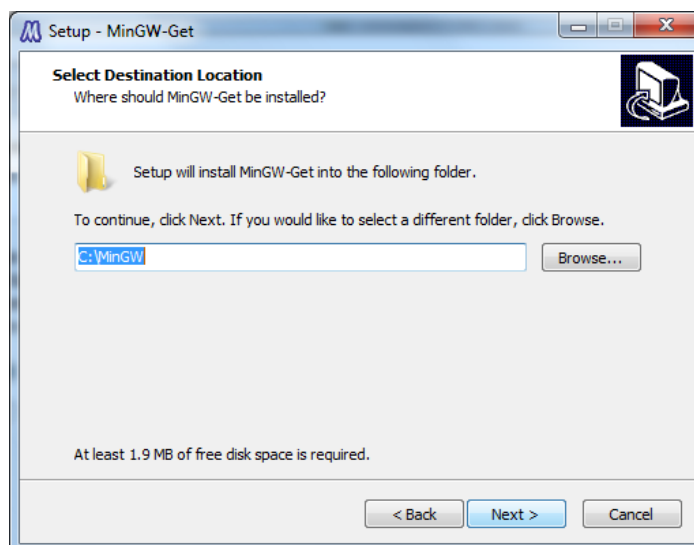
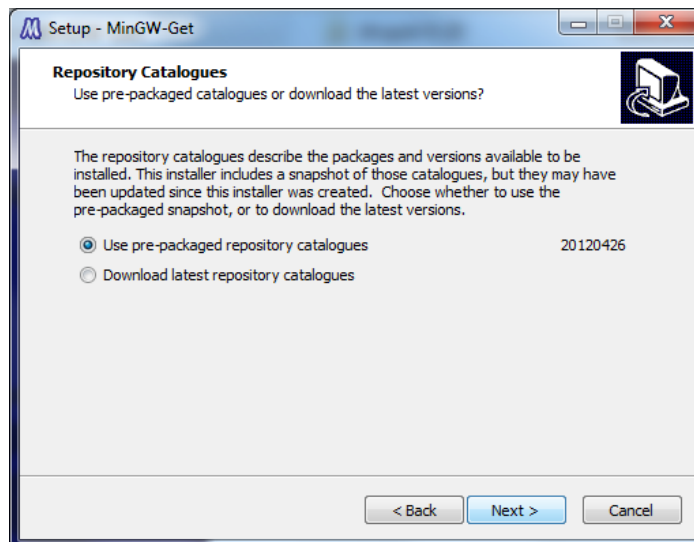
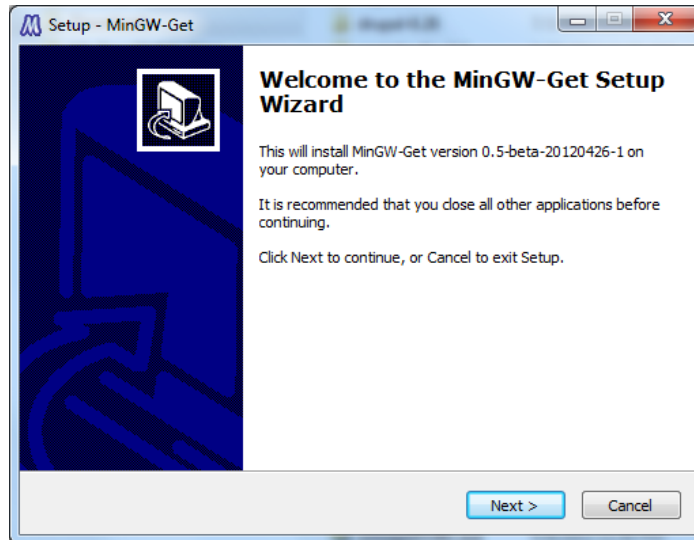
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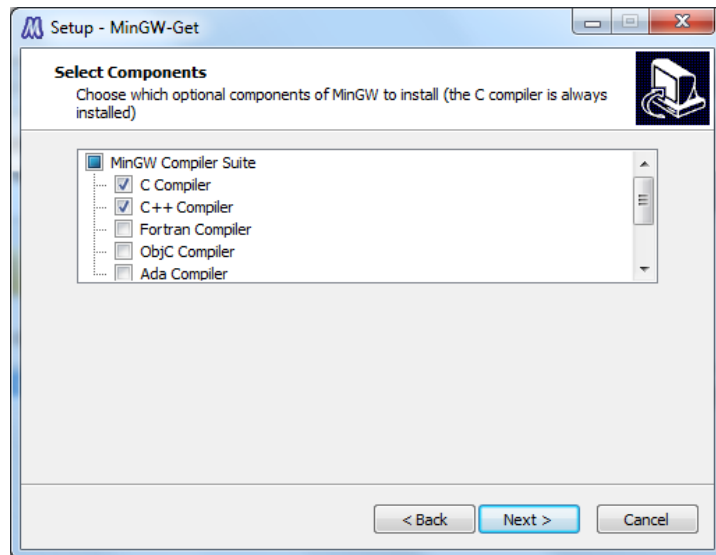
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Product / File Description	File Size	Download
Linux x86	63.65 MB	jdk-7u3-linux-i586.rpm
Linux x86	78.66 MB	jdk-7u3-linux-i586.tar.gz
Linux x64	64.53 MB	jdk-7u3-linux-x64.rpm
Linux x64	77.3 MB	jdk-7u3-linux-x64.tar.gz
Solaris x86	135.96 MB	jdk-7u3-solaris-i586.tar.Z
Solaris x86	81.4 MB	jdk-7u3-solaris-i586.tar.gz
Solaris SPARC	138.92 MB	jdk-7u3-solaris-sparc.tar.Z
Solaris SPARC	86.07 MB	jdk-7u3-solaris-sparc.tar.gz
Solaris SPARC 64-bit	16.14 MB	jdk-7u3-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	12.31 MB	jdk-7u3-solaris-sparcv9.tar.gz
Solaris x64	14.46 MB	jdk-7u3-solaris-x64.tar.Z
Solaris x64	9.25 MB	jdk-7u3-solaris-x64.tar.gz
Windows x86	84.12 MB	jdk-7u3-windows-i586.exe
Windows x64	87.41 MB	jdk-7u3-windows-x64.exe

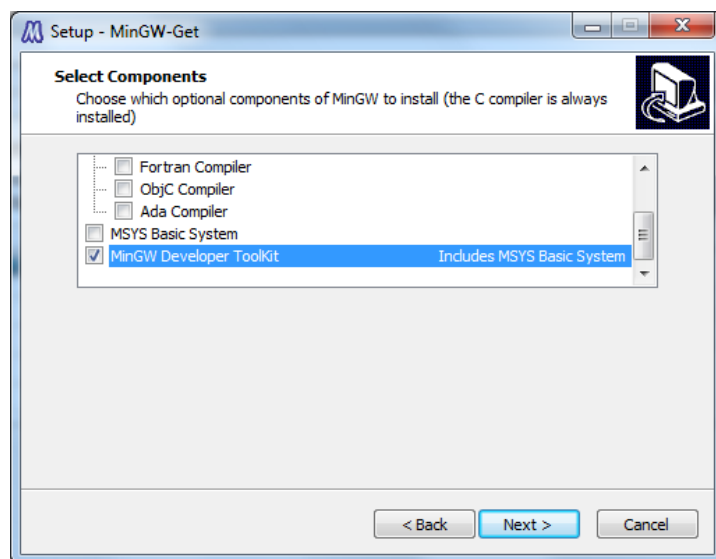
Java SE Development Kit 7u3 Demos and Samples Downloads

- 3) If you do not find it there, go to <http://www.oracle.com/technetwork/java/javase/downloads/index.html> and install Java SE.
- 4) At this point you must install the Minimal GNU Compiler (MINGW). Documentation et al. is available at <http://www.mingw.org/>. You can download the latest version directly from <http://sourceforge.net/projects/mingw/files/>. Install it on your machine in its default folder (i.e., Program Files). Follow the Installation Wizard as shown below and be sure that the Suite will install the compiler for C++ (you may need to select that option).





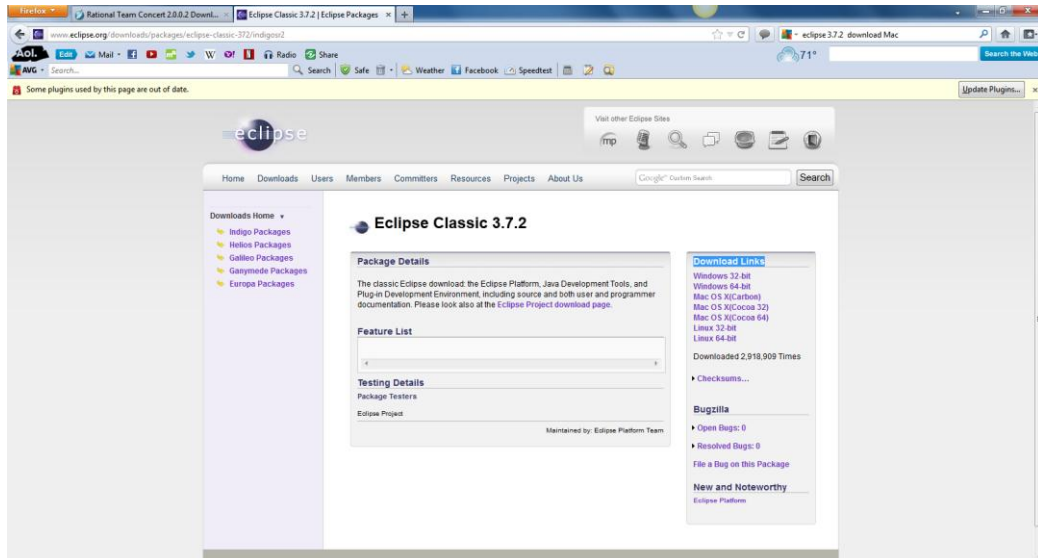
TENTION!!! SCROLL DOWN AND CONTINUE THE SELECTION



- 5) To access the libraries of the MINGW, open the Control Panel/System/Advanced System Settings/Environment Variables. In the System Variables dialog box, select Path and click Edit. In the field "Variable Value" put the cursor at the text, add a semicolon and then type C:\MinGw\lib;c:\MinGw\bin; Select Ok.
- 6) After you have completed the installation of the JVM and MINGW you can finally install Eclipse.

Perform Eclipse Installation:

- 7) Go to <http://www.eclipse.org/downloads/packages/eclipse-classic-372/indigo/sr2> and download the Indigo version of Eclipse called Eclipse Classic 3.7.2.



- 8) Locate the “Download Links” channel (on the right hand side of the window) and download the appropriate version for your machine (attention to the version 32 or 64 bits for Windows, Mac OS, Linux).
- 9) Unzip Eclipse in any directory of choice (For example: C:\Software). Launch Eclipse (No need for any installation).

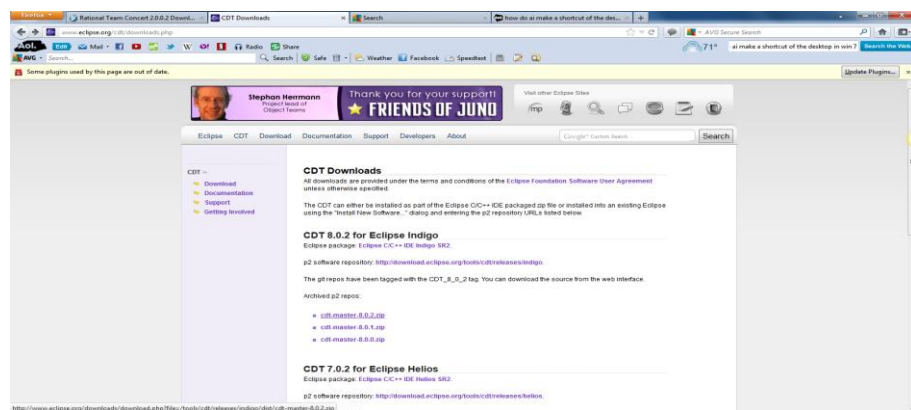
Required Plug-ins for Eclipse:

At this point we must install Two (2) plug-ins for Eclipse:

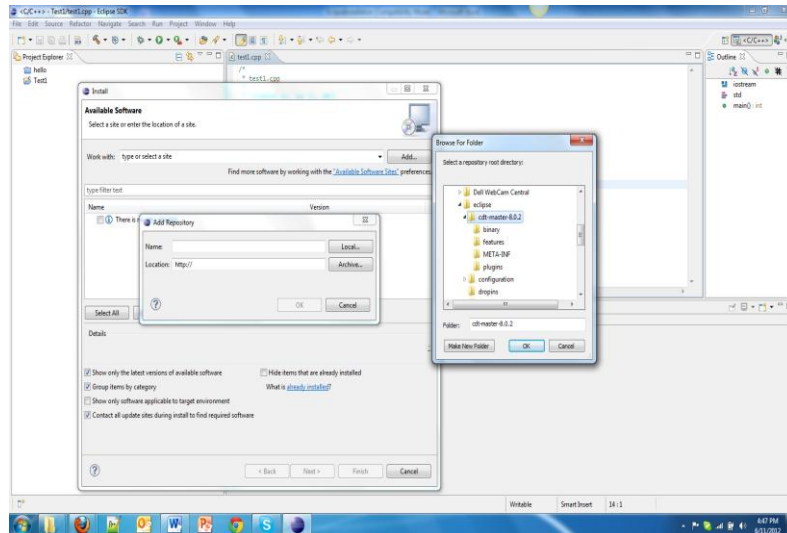
1. the C++ plug-in (cdt-master-8.0.x).
2. the RTC-Express-Client-p2Repository-2.0.0.2 plug-in which contains the Laboratory.

10) Download and install the C++ plug-in:

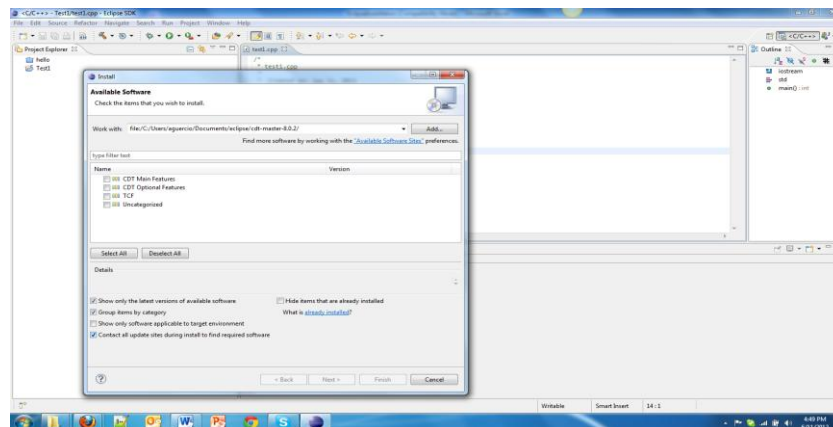
- a. Go to <http://www.eclipse.org/cdt/downloads.php> and download the cdt-master-8.0.2.zip from the CDT 8.0.2 for Eclipse Indigo section



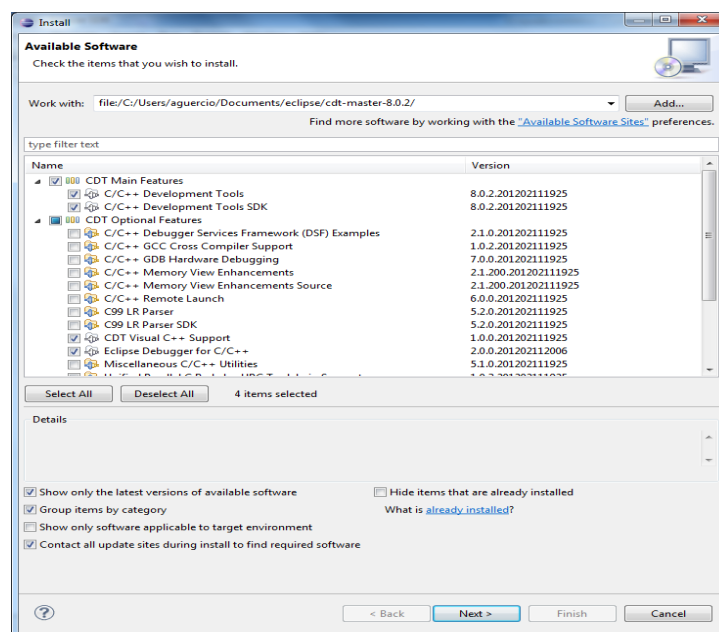
- b. Unzip it and save it wherever you prefer on your machine (For example: C:\Software).
- c. Open Eclipse (if it is not open), go to the Help menu and select *Install New Software*.



- d. Next to the field “Work With” click *Add*, the *Local*, then browse and select the folder *cdt-master-8.0.2*. Press *OK* and *OK* again. You will see this display:

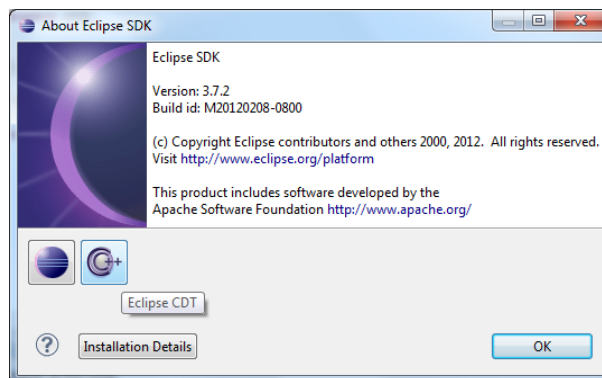


- e. Open the first two folders to show their content and select only the 4 suggested features:



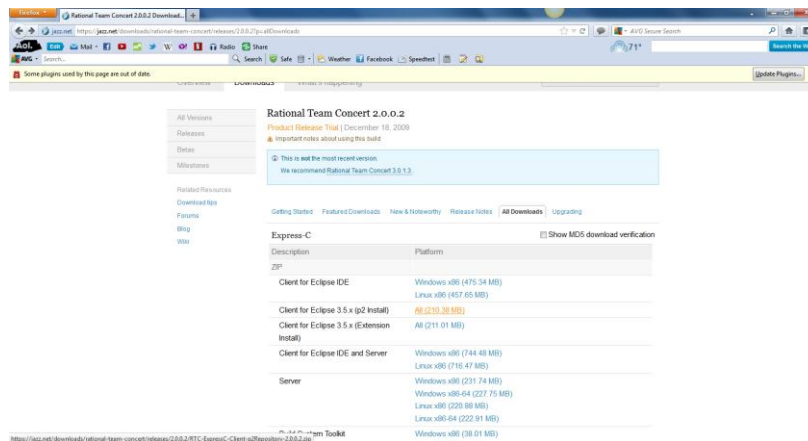
- f. Press *Next* and complete the installation of the C++ plug-in.

- g. At this point check if the installation has been performed. Go to Help -> About Eclipse SDK and click on *Installation Details*. You should see the C++ plug-in icon, next to the Eclipse icon as shown below.

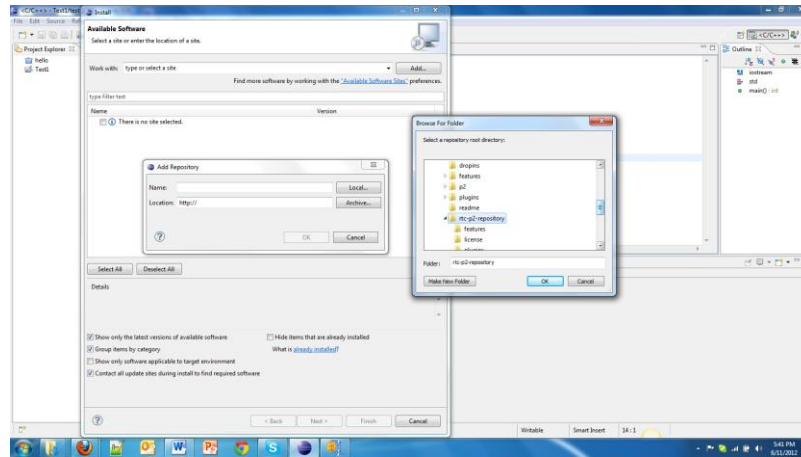


11) How to install the RTC-Express-Client-p2Repository-2.0.0.2 plug-in for the Laboratory

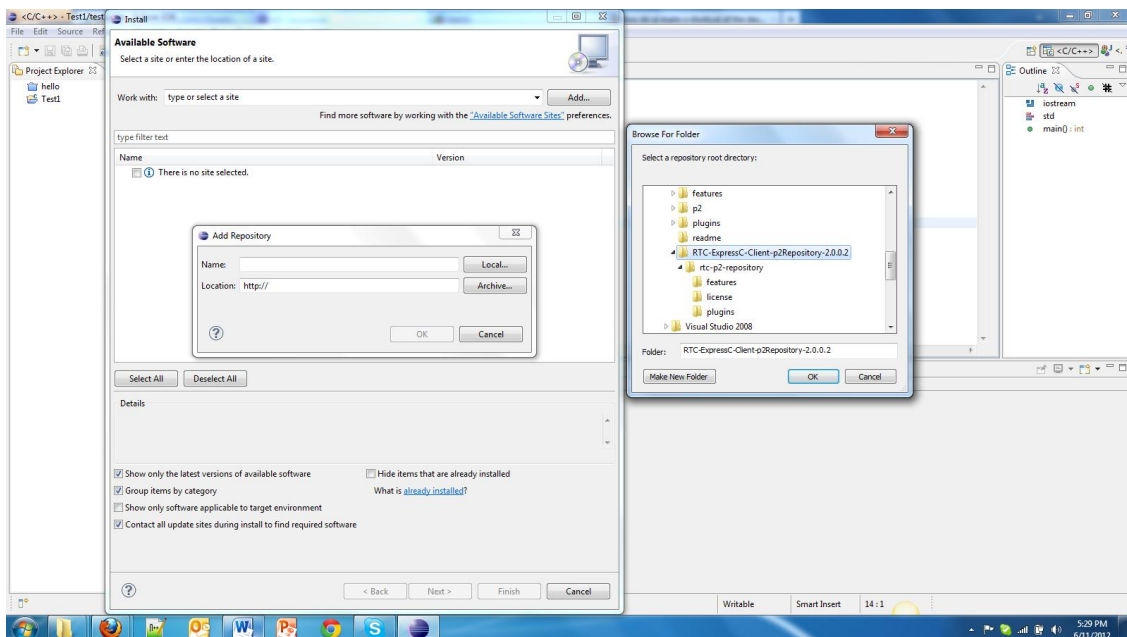
- a. Download the lab manager plug-in at <https://jazz.net/downloads/rational-team-concert/releases/2.0.0.2?p=allDownloads>. From the Rational Team Concert 2.0.0.2, in the list Express-C, select the Client for Eclipse 3.5.x (p2 Install) and download it.



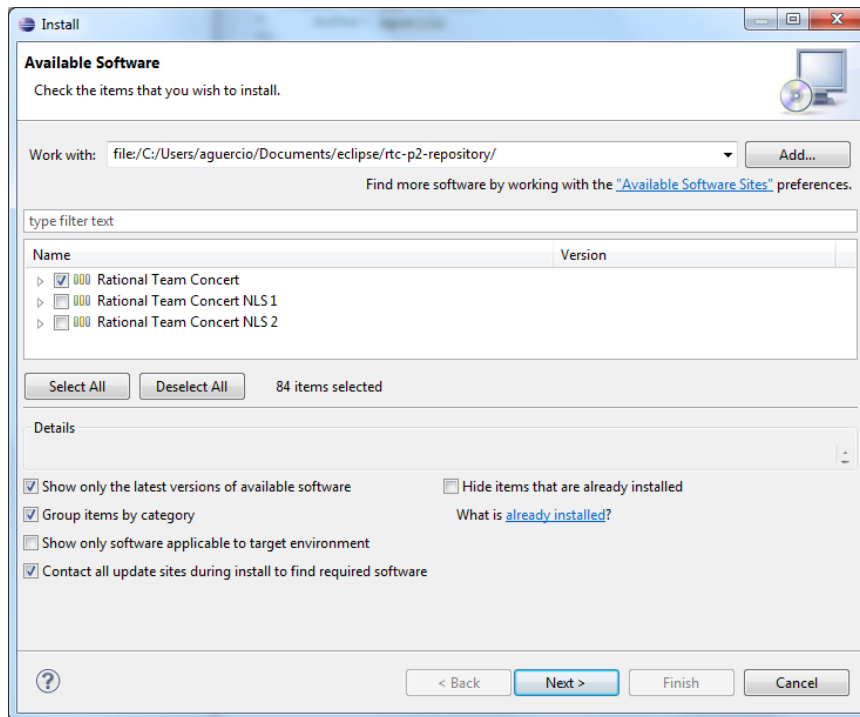
- b. You will be asked to login with your credentials. If this is the first time you are at this site and you do not have an account yet, create a new account and login with your credentials (It may take a few minutes to receive the registration email). Now download the file, unzip the file in a directory of your choice.
- c. The installation of the plug-in in Eclipse is similar to the one performed for the C++ plug-in. Return to Eclipse and install the plug-in from the *Help* → *Install New Software* menu. Press *Add*, the *Local*, the search for the folder *RTC-Express-Client-p2Repository-2.0.0.2* on your machine.



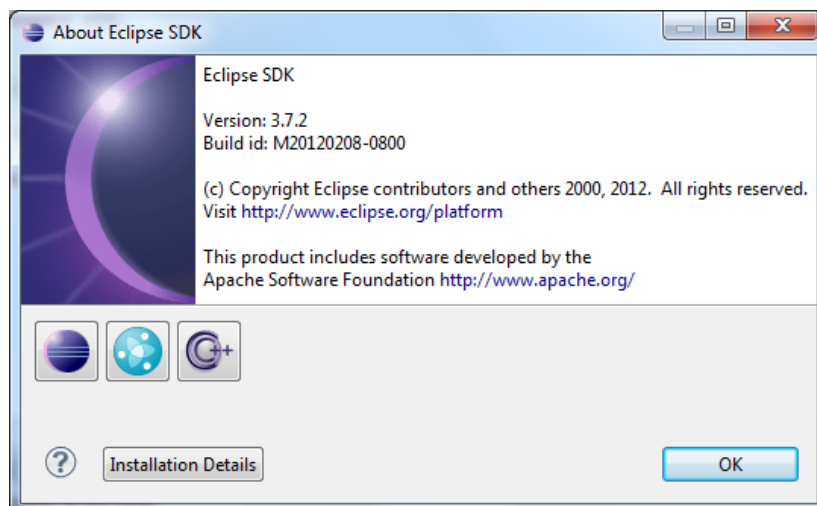
- d. Press OK and complete the installation. At this point check if the installation has been performed. Go to Help -> About Eclipse SDK and click on *Installation Details*. You should see the C++ plug-in icon, next to the Eclipse icon as shown below.



- e. Select the Rational Concert as shown in the picture, press next, accept the terms of the licence and complete the installation.



12) You must restart the machine for the installation to complete. When the machine restarts, open Eclipse and go to *Help* → *About Eclipse SDK*. You should see the icon of the repository, as shown in the picture, next to the other installed programs.



13) Create a C++ project and compile it to test that Eclipse is properly working. If your program compiles and runs you are set.