



# Eclipse with Linux Ubuntu 9.10 Karmic Koala: BUG FIX

- Download Eclipse classic from the following link:

<http://www.eclipse.org/downloads/>

- Extract it
- With the GALILEO release there is a bug with the graphical Interface. Supposing that the executable file is in “home/ilaria/Scrivania/eclipse\_folder”, create a text file with the following string:

```
#!/bin/bash
export GDK_NATIVE_WINDOWS=true
/home/ilaria/Scrivania/eclipse_folder/eclipse
```

- Save it with a name that you like, but with the extension .sh. Save it in the folder where the eclipse executable is
- Right click on the file and allow it to be EXECUTABLE
- Now lunch the .sh file instead of launching the eclipse icon and the bug is fixed

Go to the workbench icon:



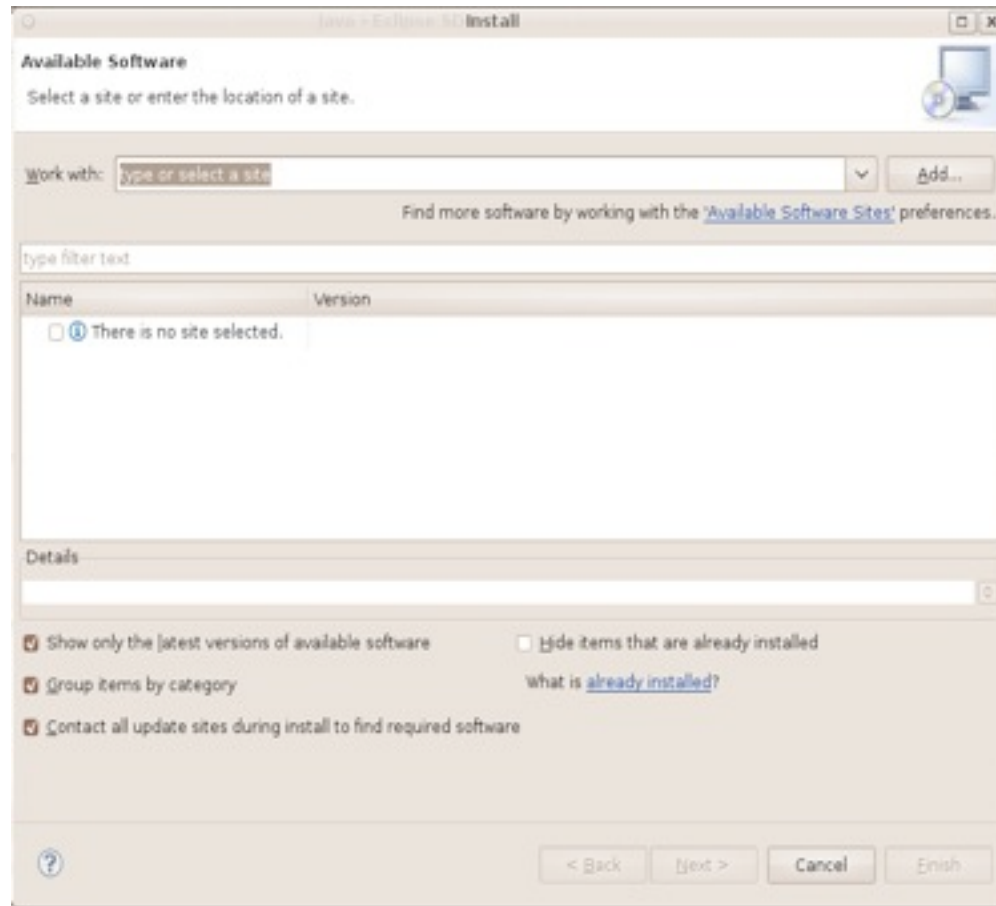
You now need to install:

- CDT packages for eclipse Galileo
- SVN packages for eclipse Galileo

# CDT packages for eclipse Galileo

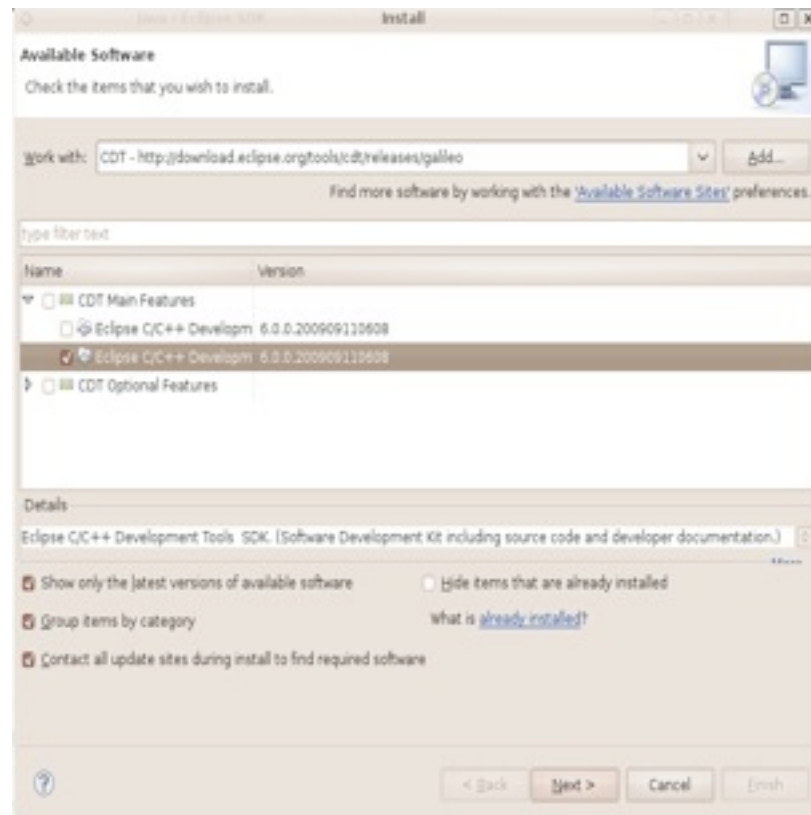
# CDT: Eclipse C/C++ Development Tooling

- From Help → Install New Software

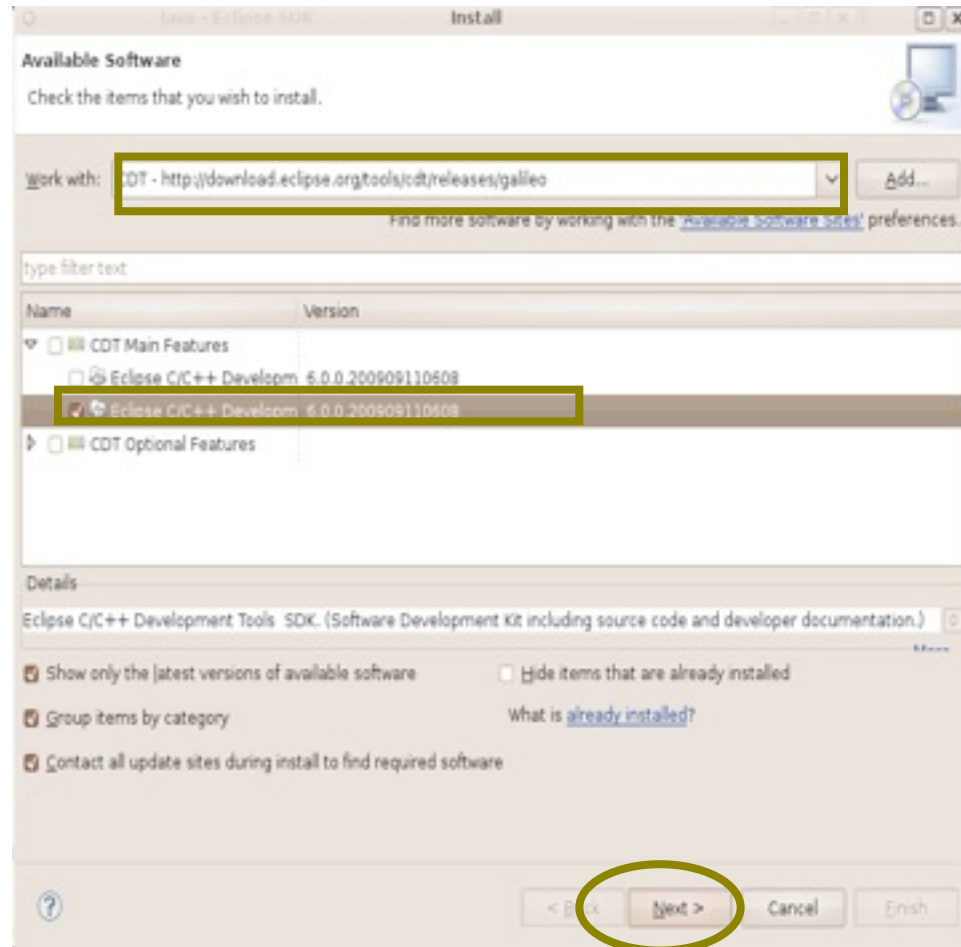


## CDT: Eclipse C/C++ Development Tooling

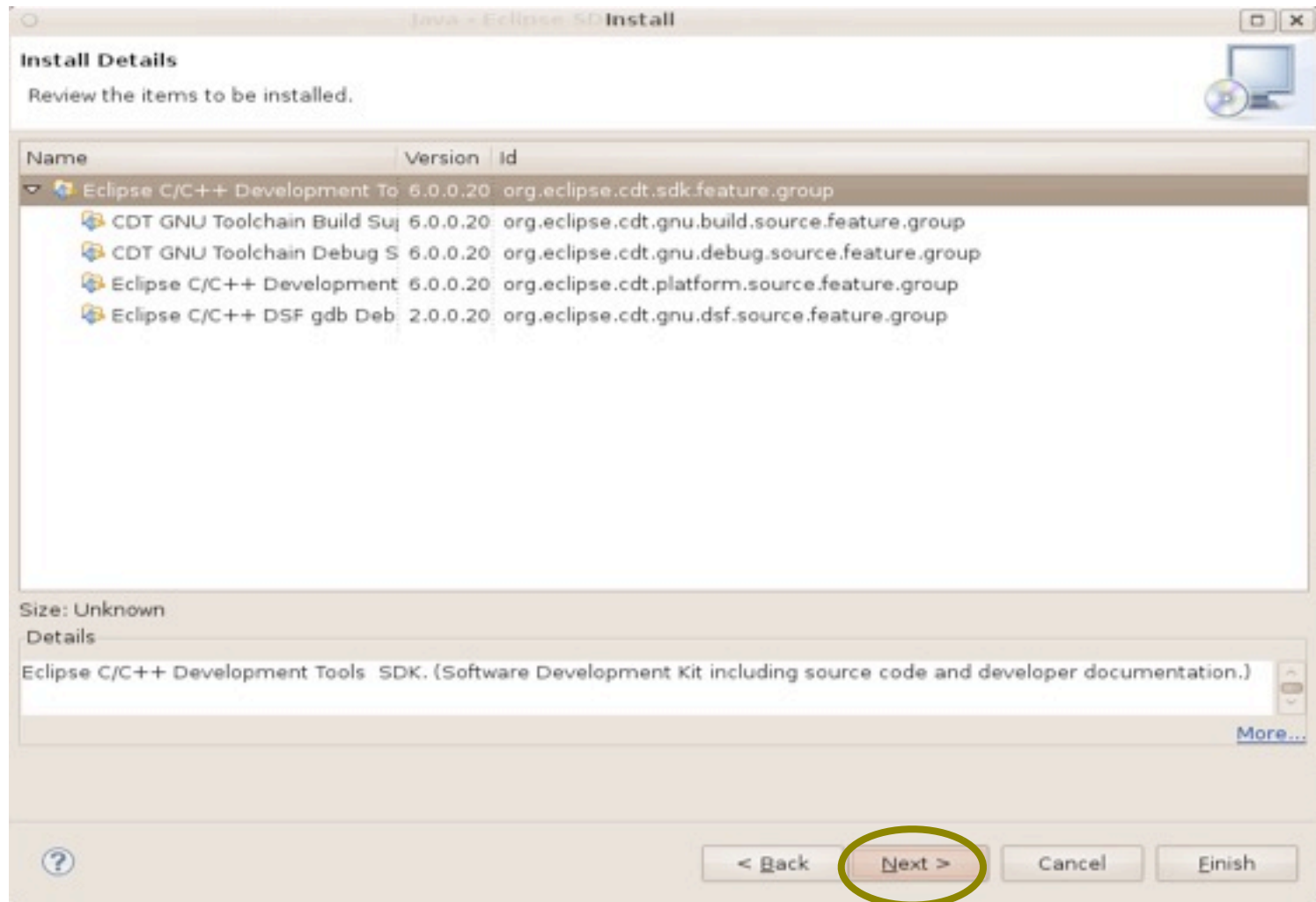
- From Help → Install New Software
- Work with: Galileo - <http://download.eclipse.org/releases/galileo>



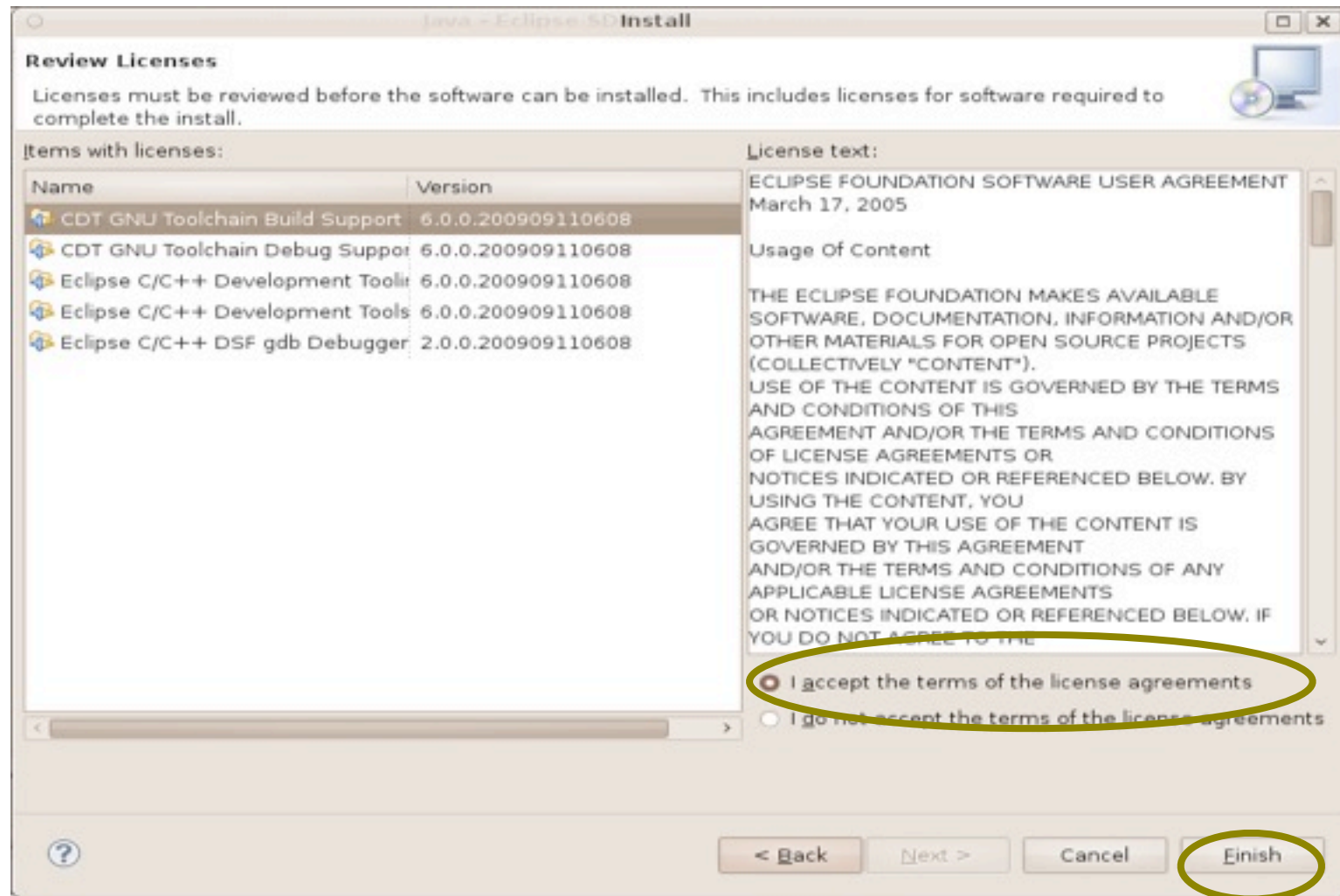
# CDT: Eclipse C/C++ Development Tooling



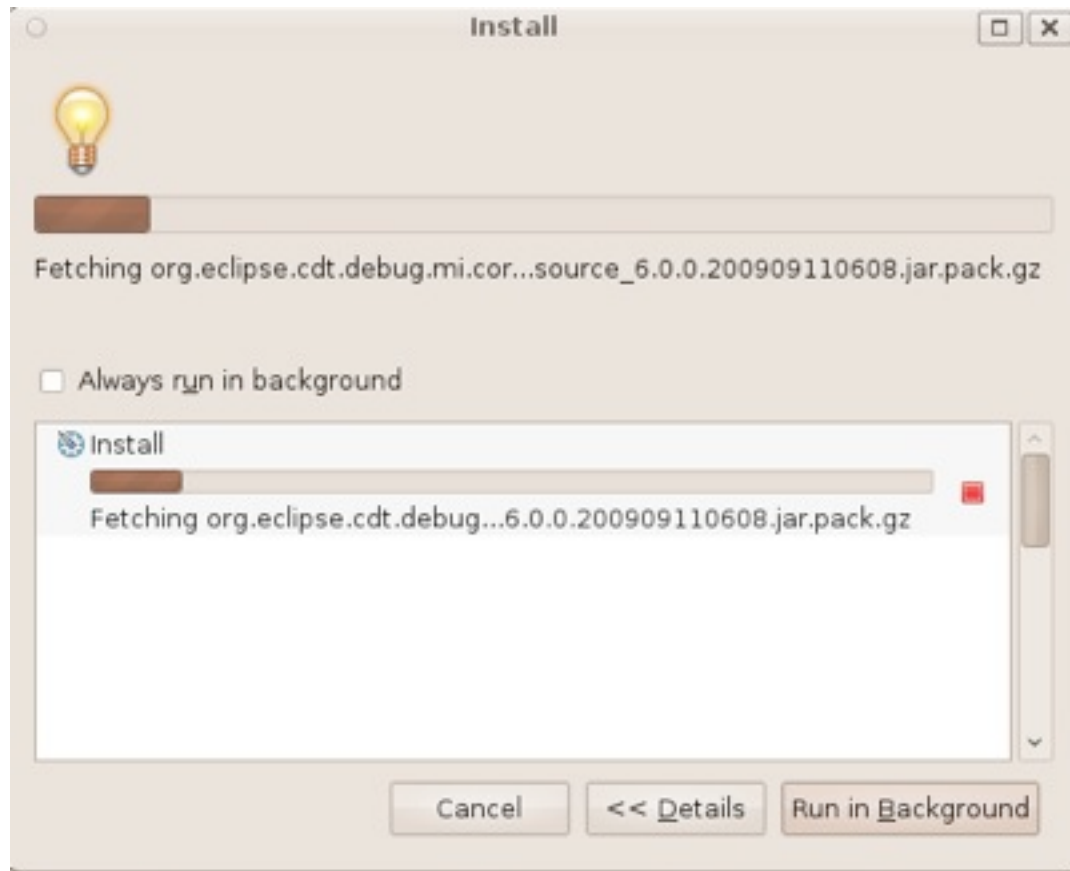
# CDT: Eclipse C/C++ Development Tooling



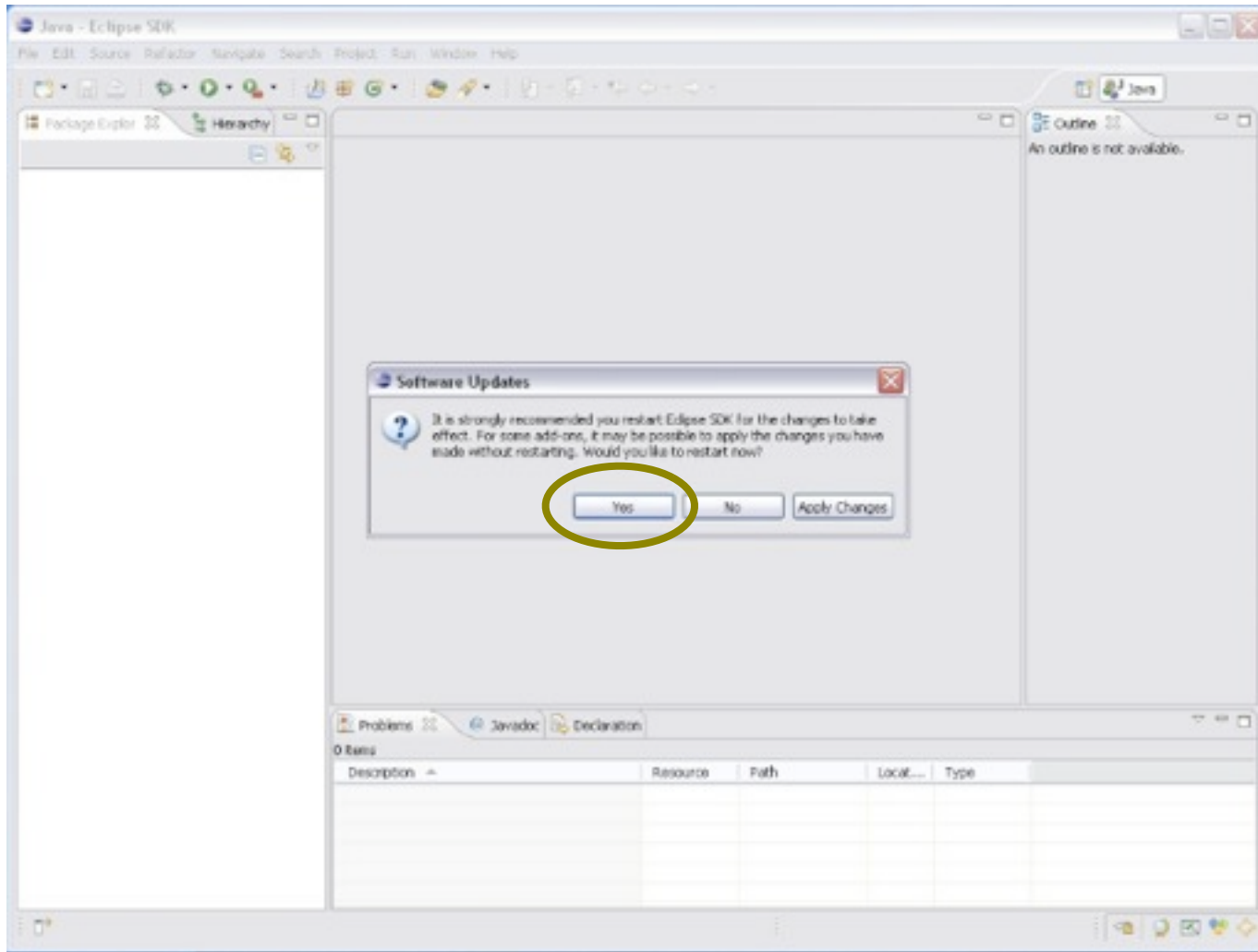
# CDT: Eclipse C/C++ Development Tooling



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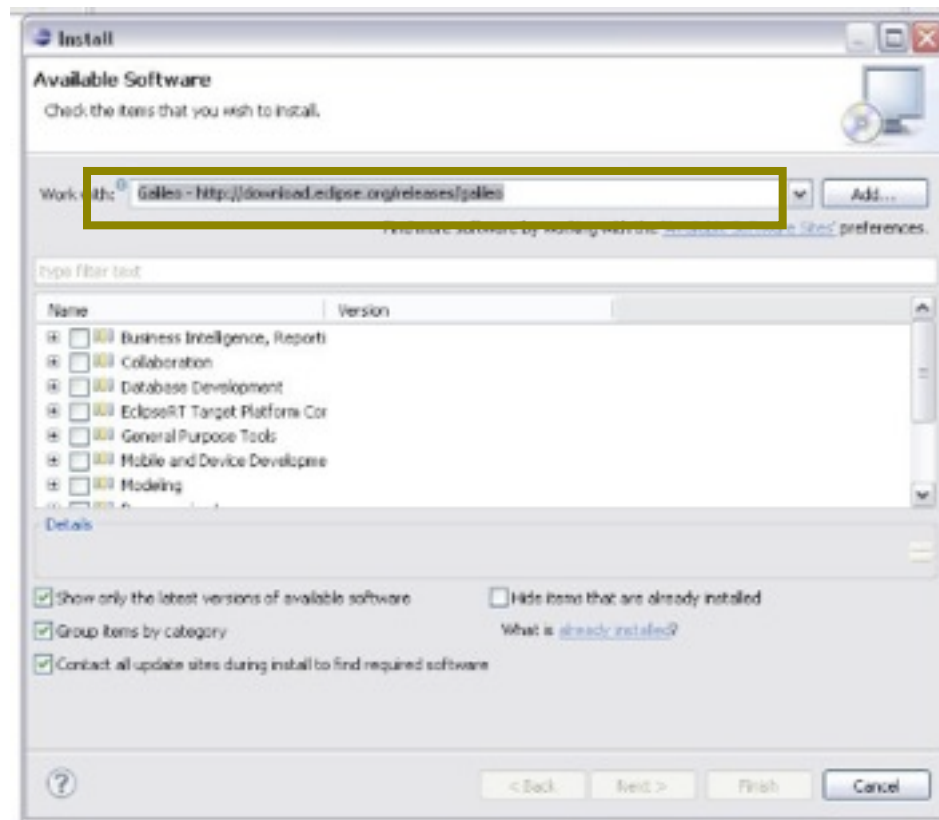
# CDT: Eclipse C/C++ Development Tooling



To use SVN in eclipse Galileo

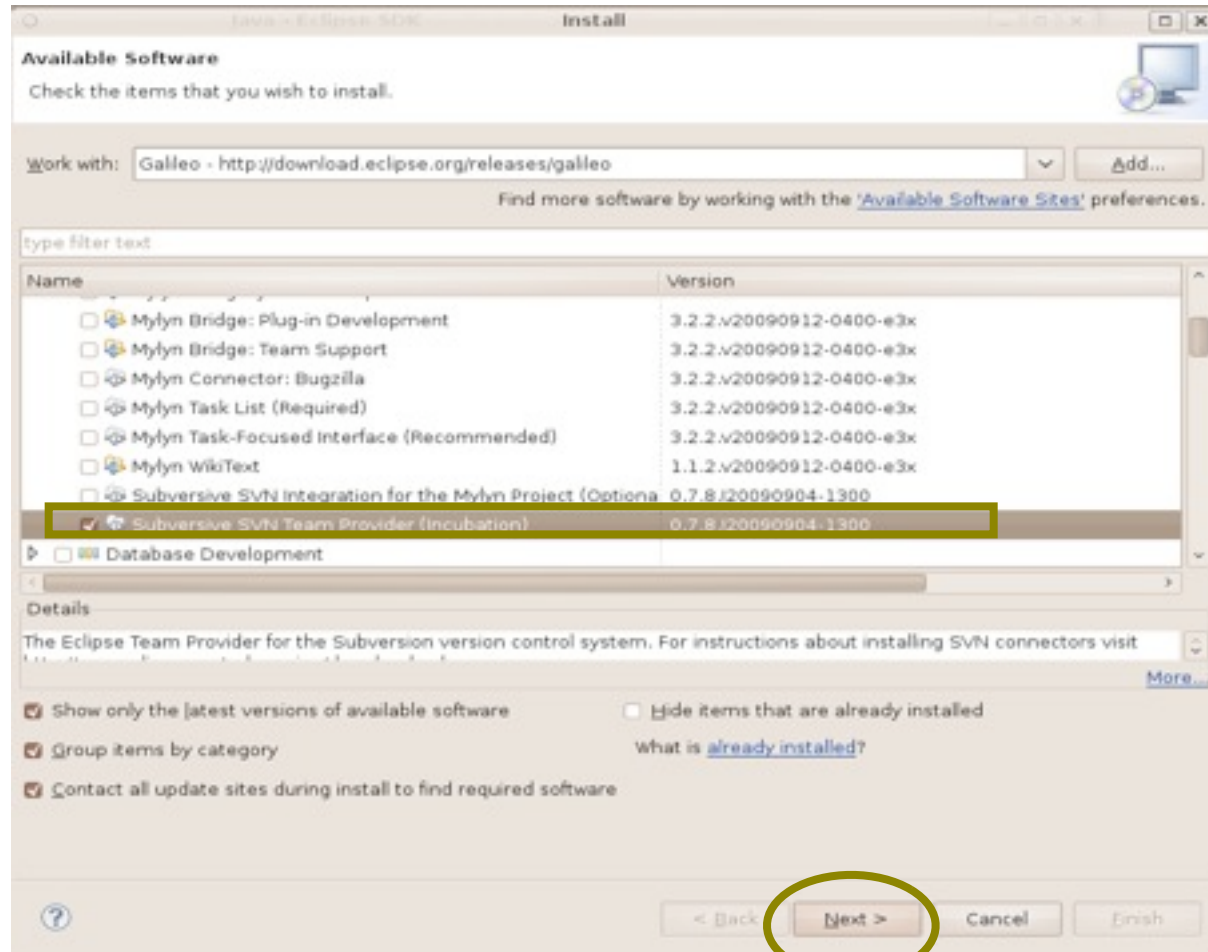
## To use SVN in eclipse Galileo: Subversion

- From Help → Install New Software
- Work with: Galileo - <http://download.eclipse.org/releases/galileo>

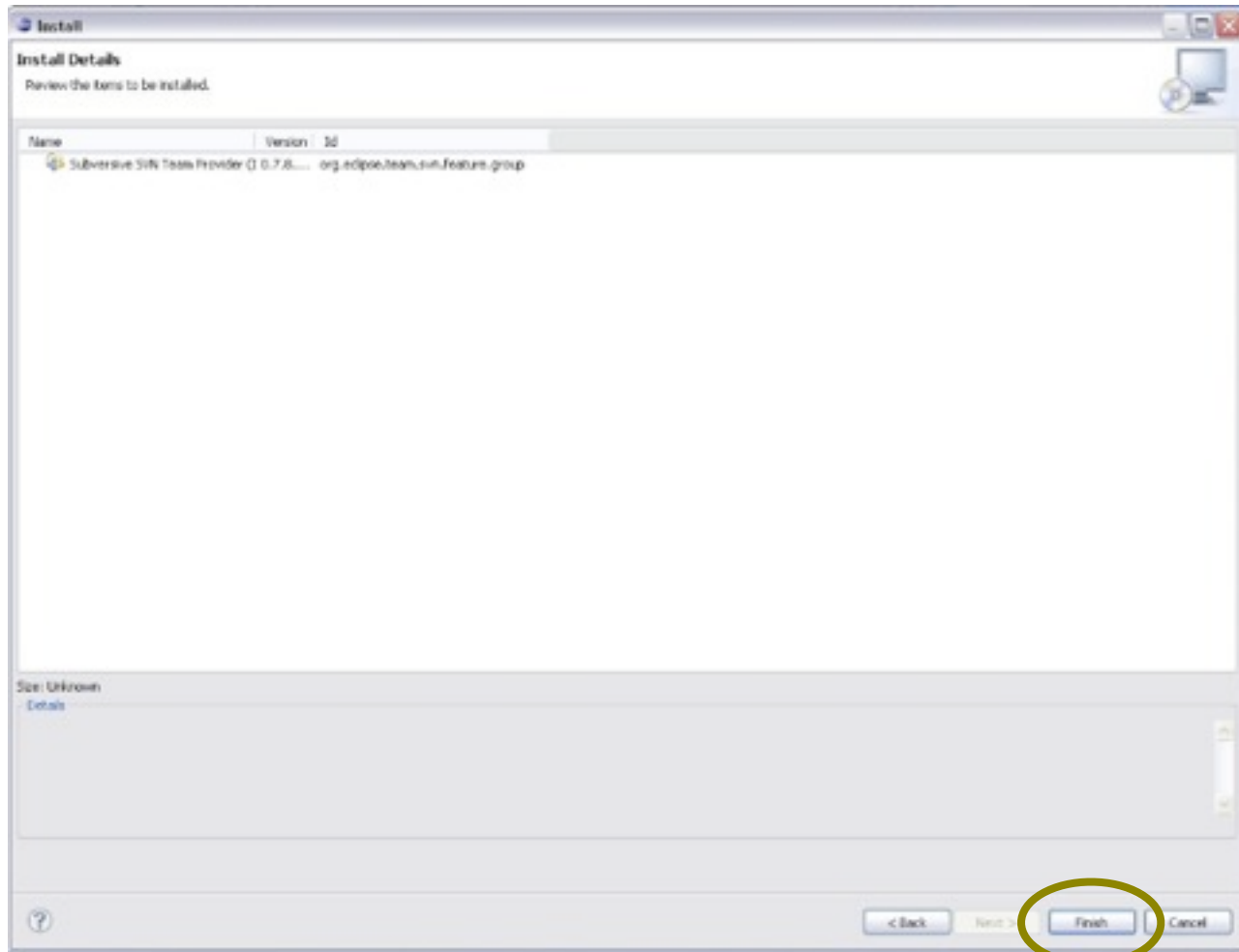


To use SVN in eclipse Galileo: Subversion

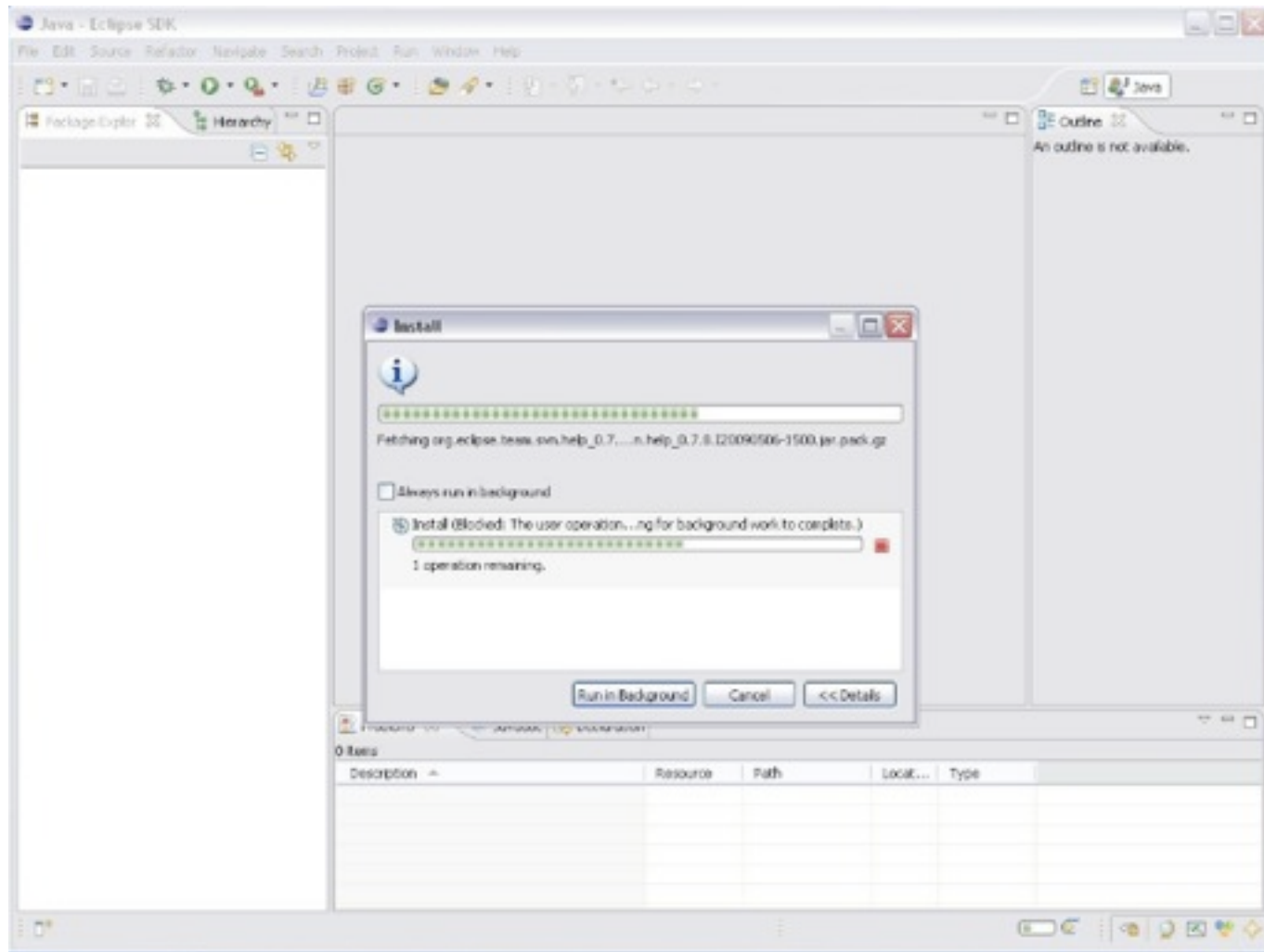
Collaboration → Subversive SVN Team Provider (Incubator)



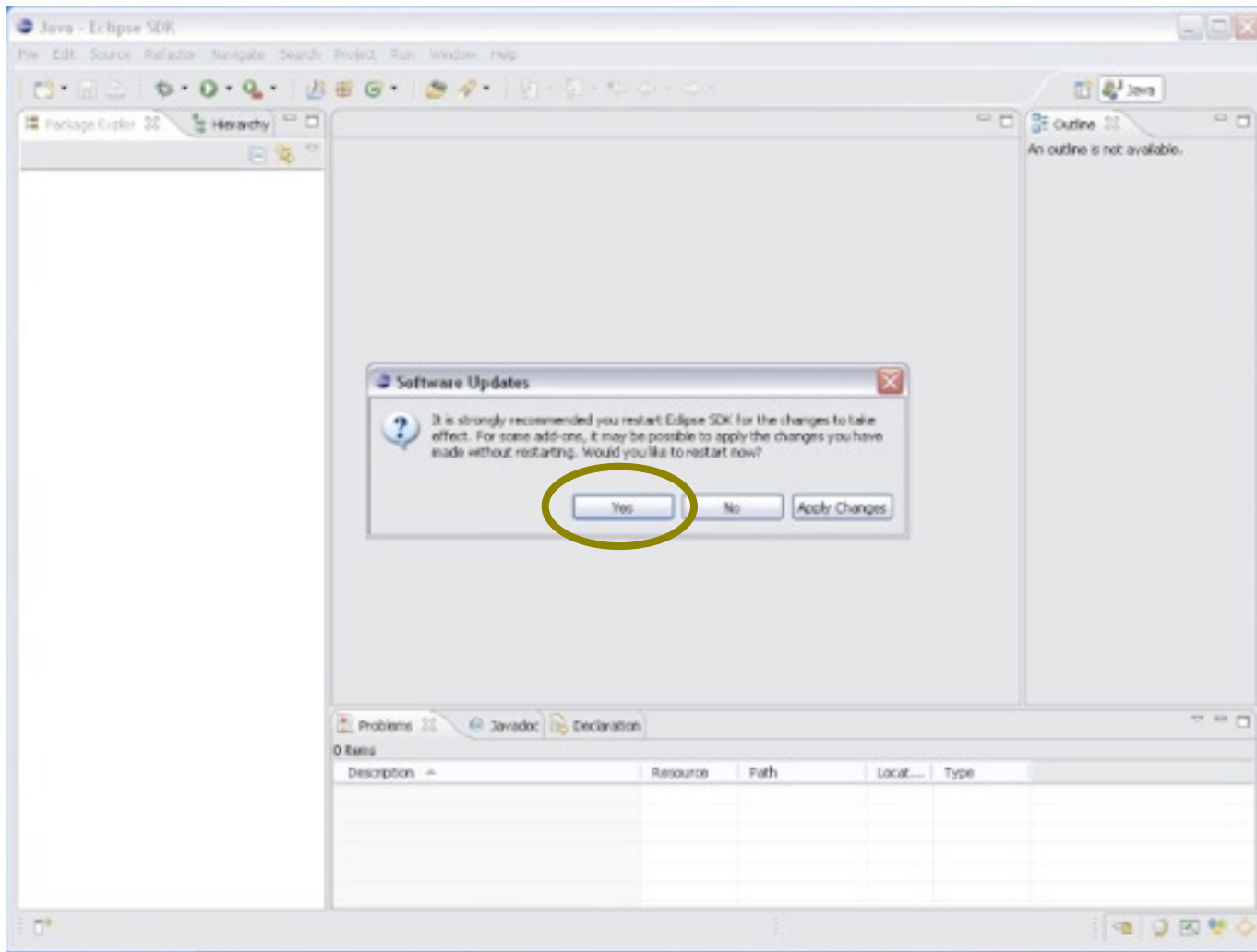
## To use SVN in eclipse Galileo: Subversion



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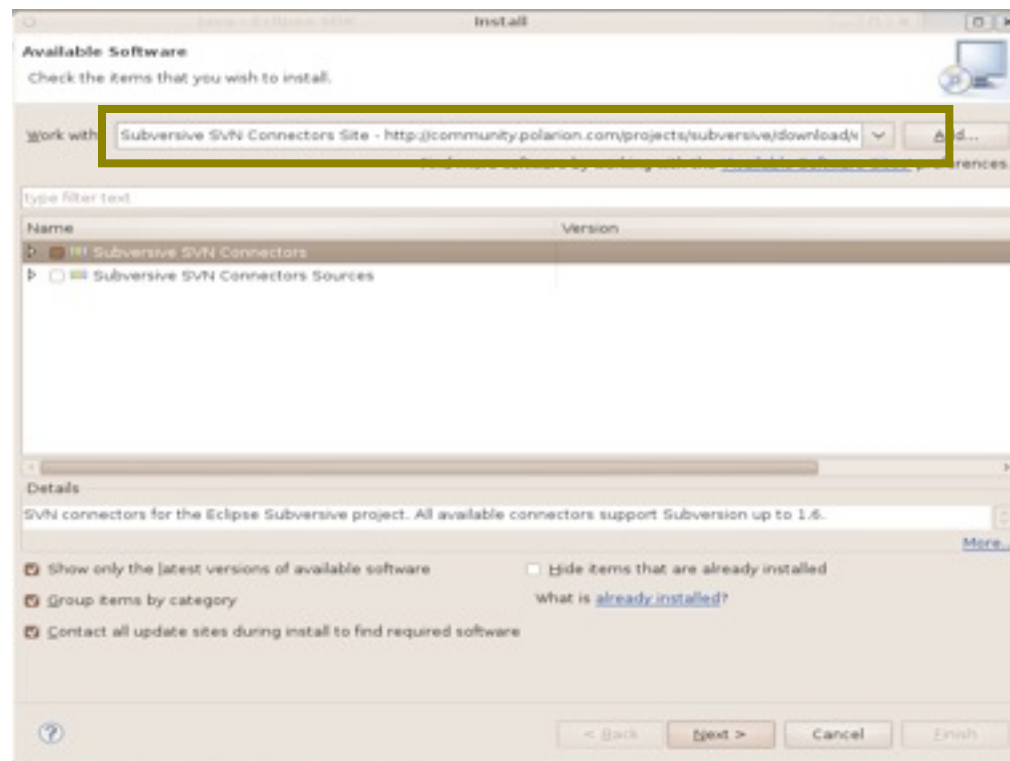


## To use SVN in eclipse Galileo: Subversion



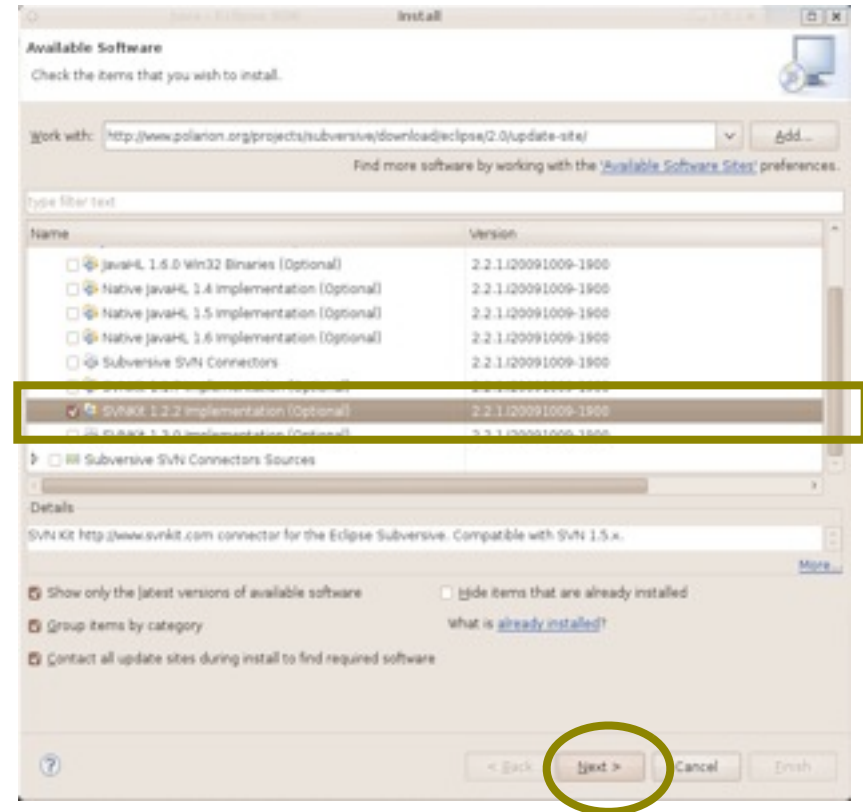
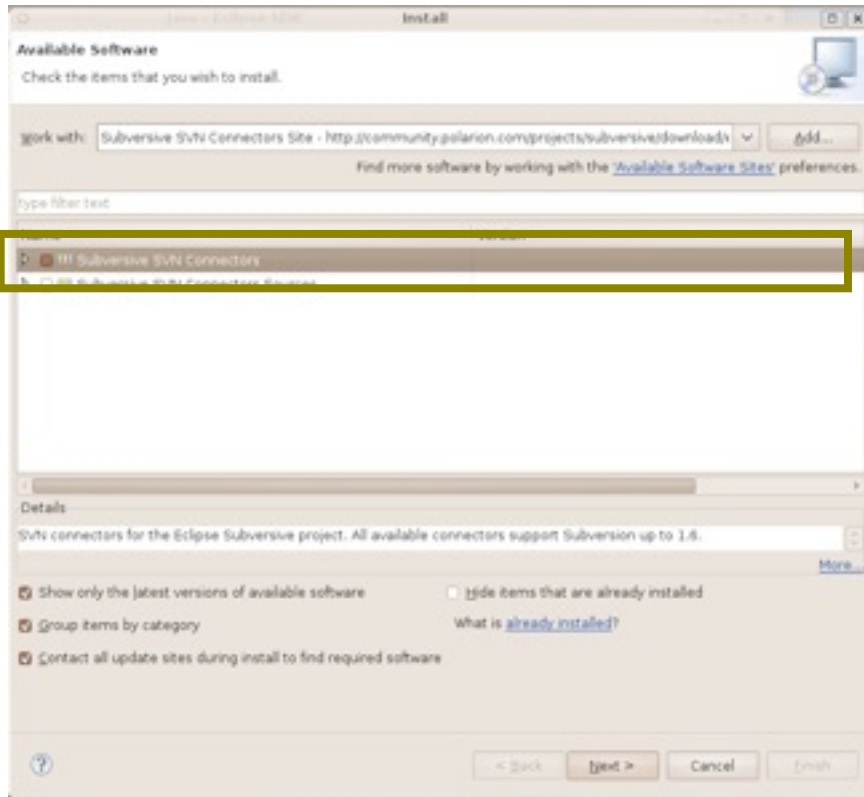
## To use SVN in eclipse Galileo: Subversion

- From Help → Install New Software
- Work with: <http://www.polarion.org/projects/subversive/download/eclipse/2.0/update-site/>
- Click on “add” → enter any name → click on ok.

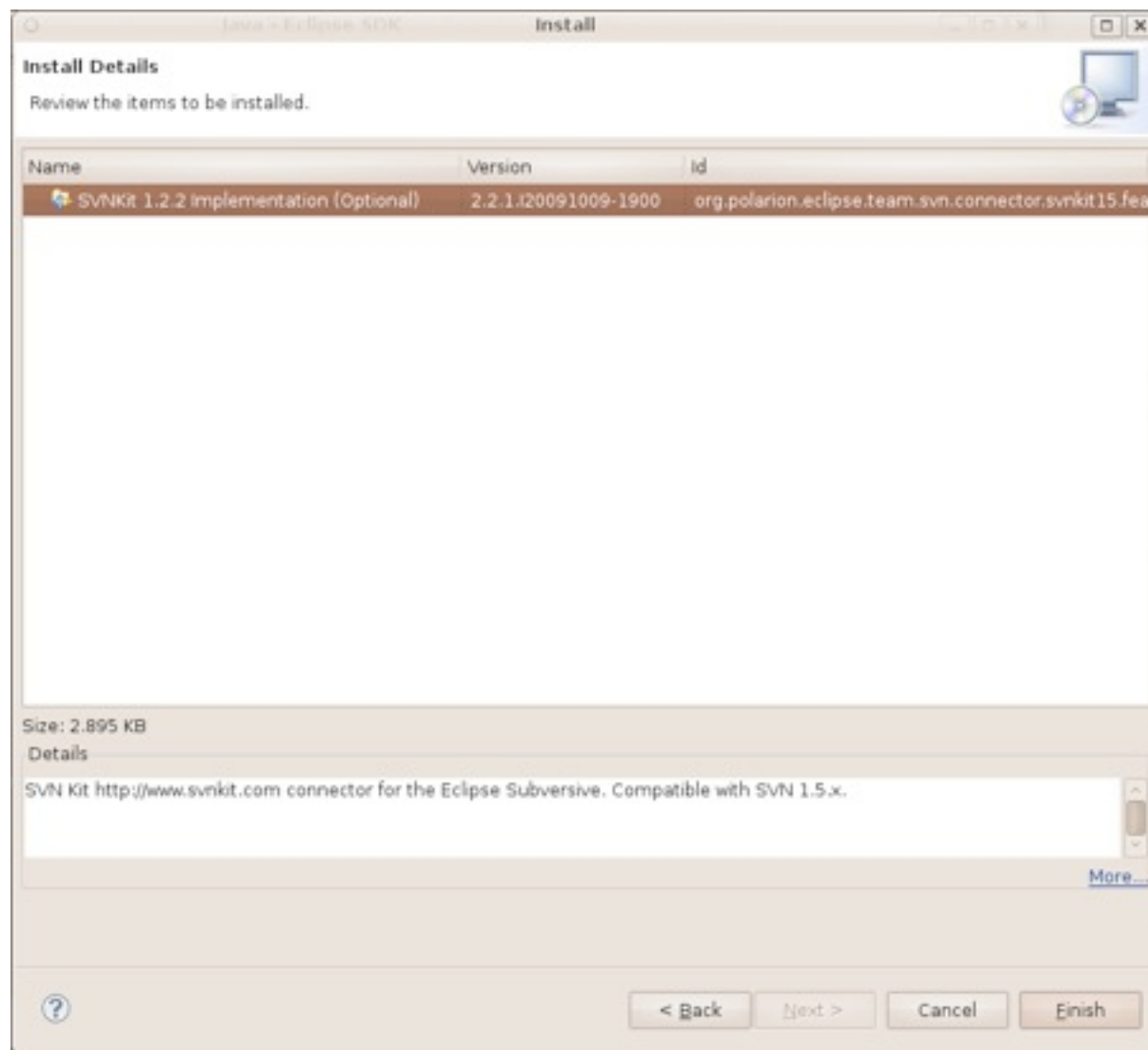


# To use SVN in eclipse Galileo: Subversion

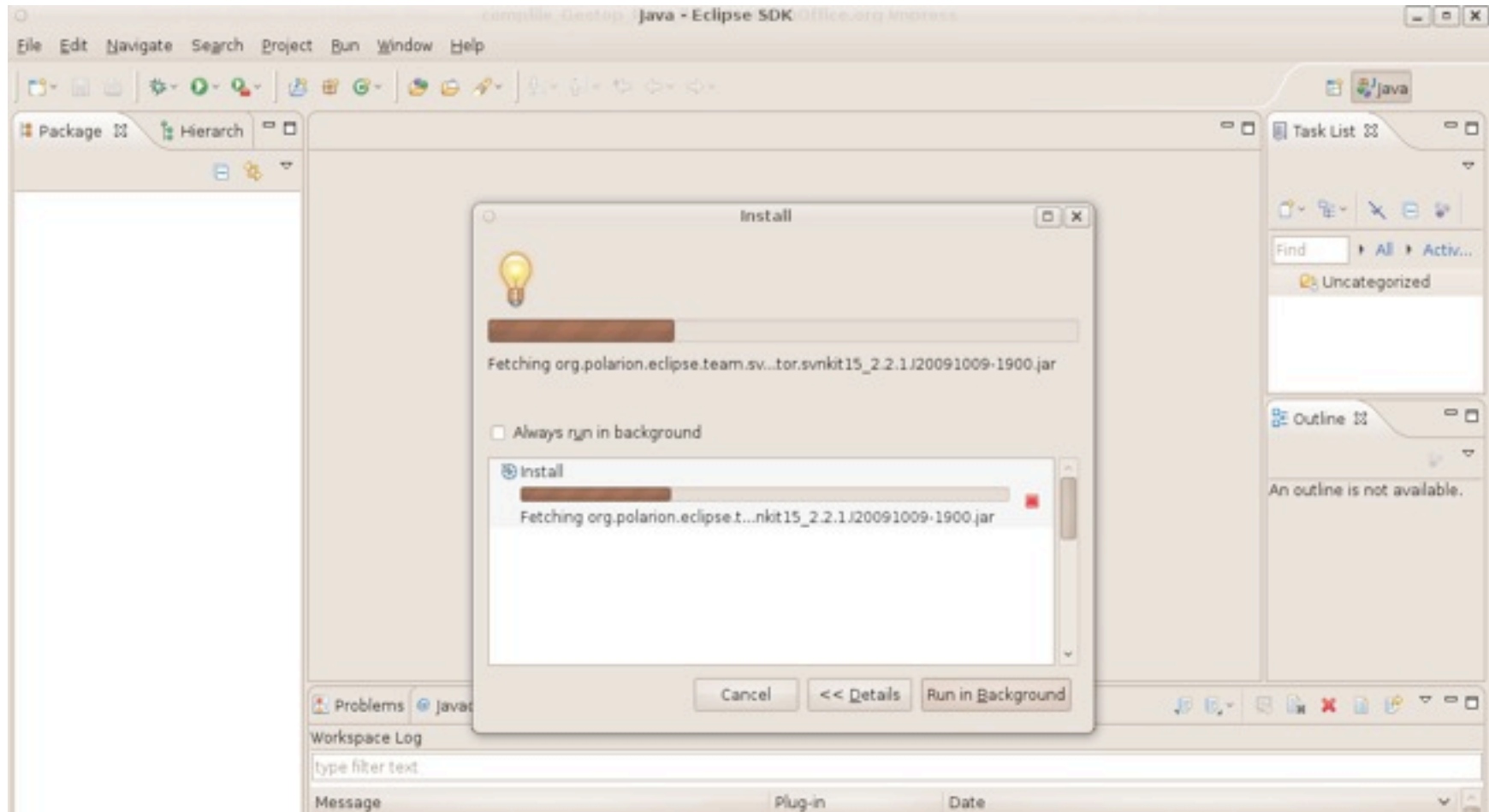
- Subversive SVN Connectors → SVNKit Implementation (Optional)



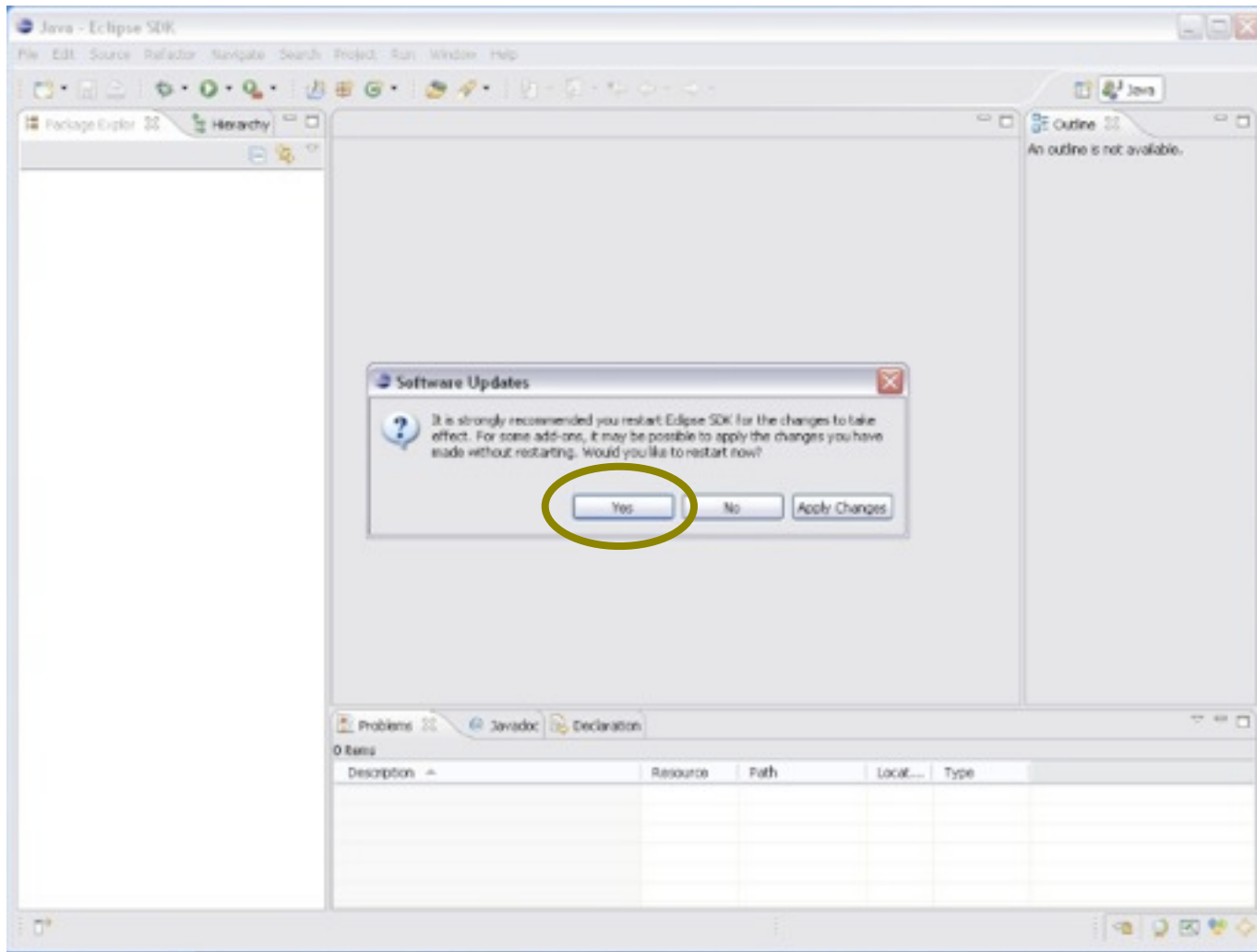
# To use SVN in eclipse Galileo: Subversion



# To use SVN in eclipse Galileo: Subversion



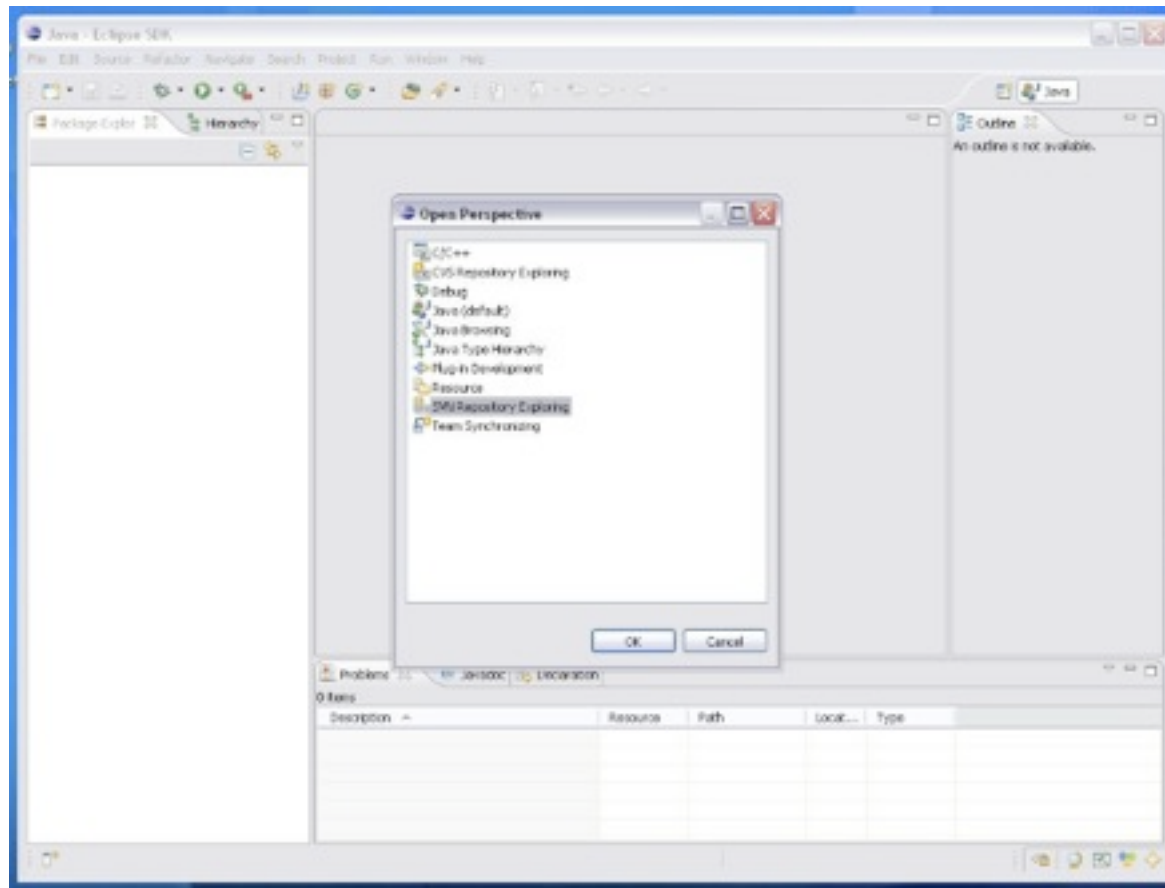
## To use SVN in eclipse Galileo: Subversion



Download from SVN GEOtop code

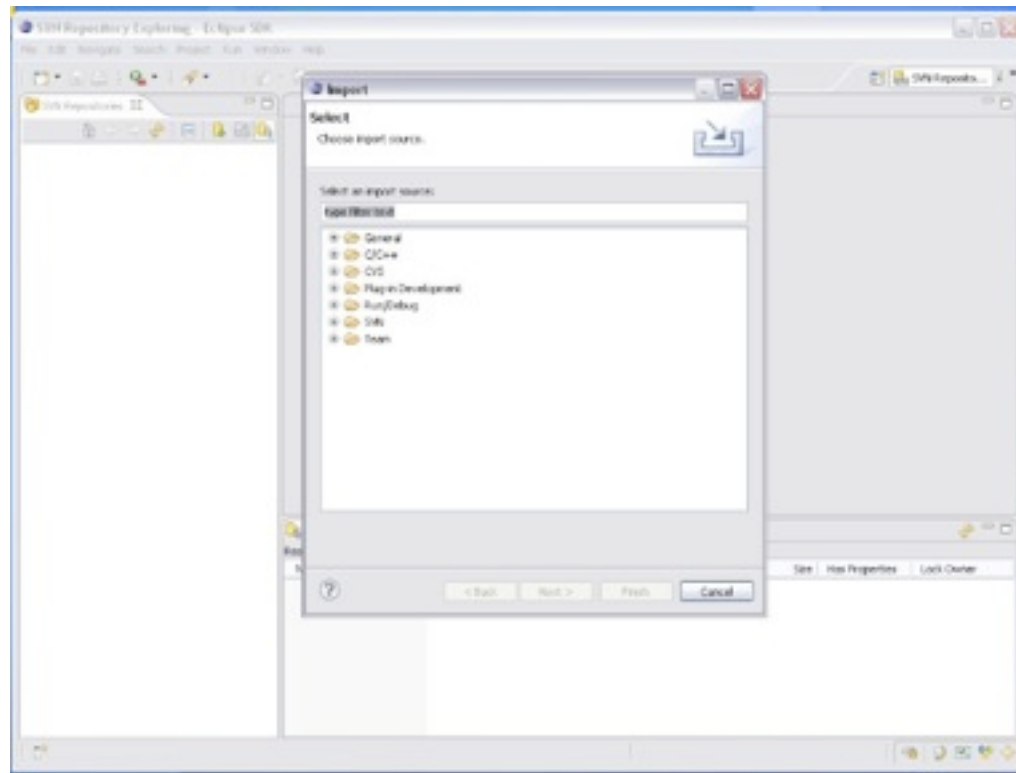
## Download from SVN GEOTop code: Set prospective

- In eclipse, from Window → Open perspective → Other → SVN Repository Exploring

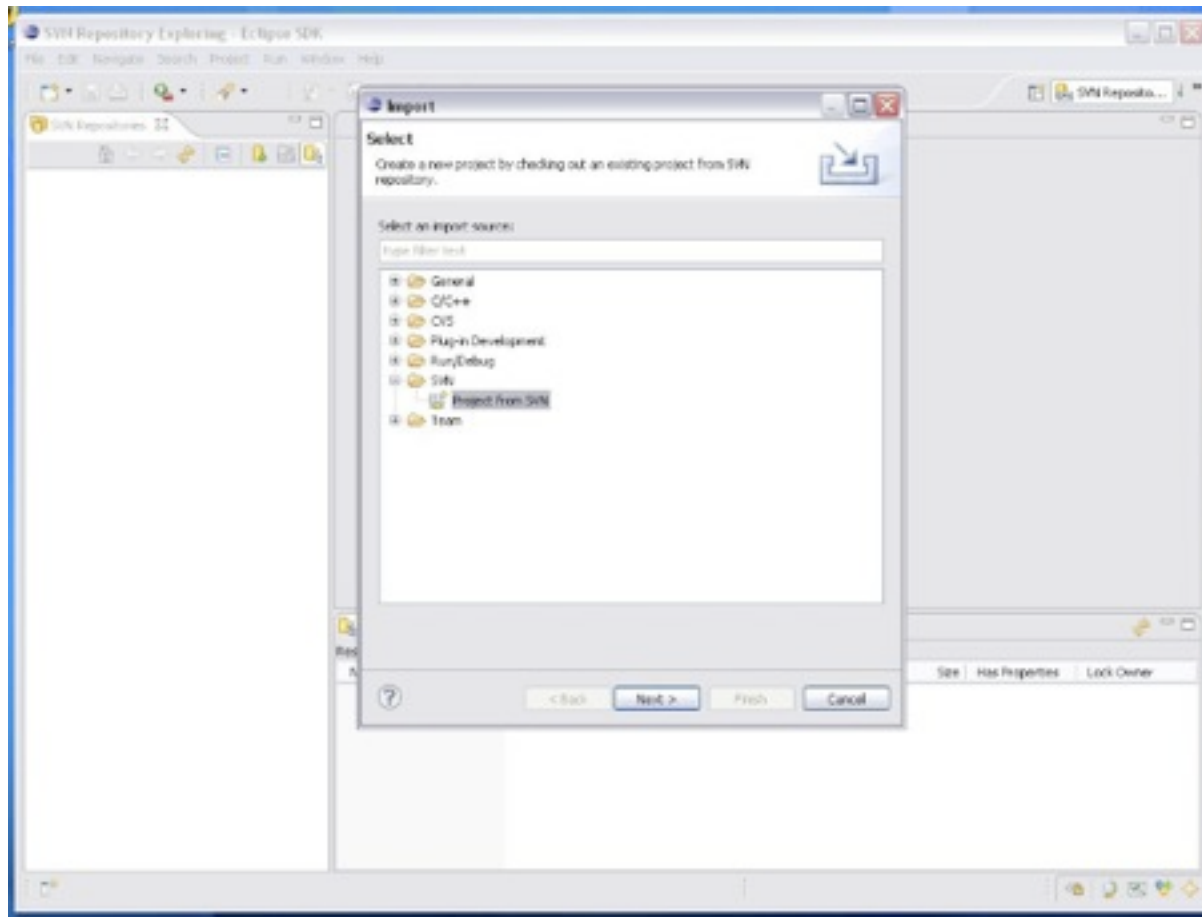


## Download from SVN GEOTop code

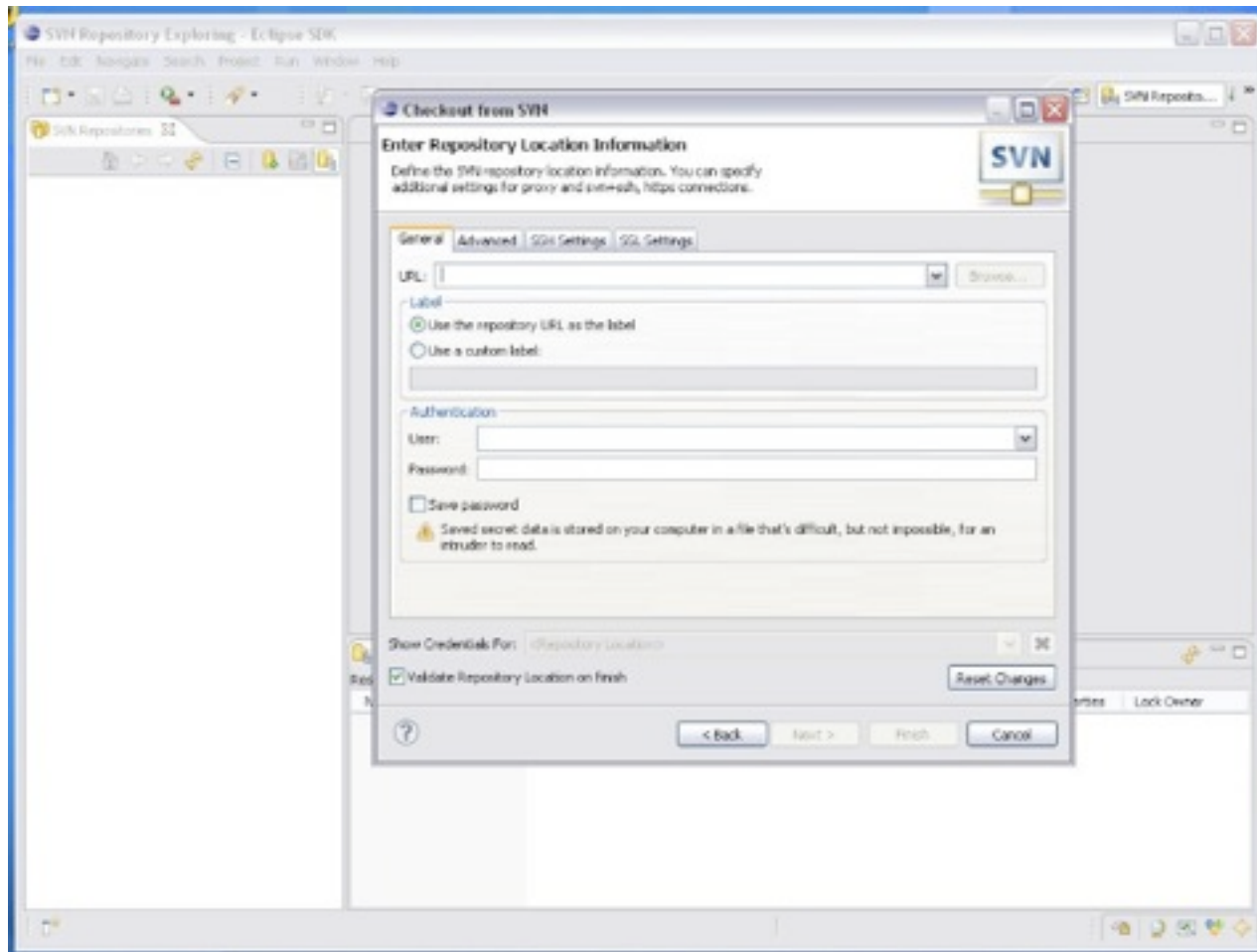
- In eclipse, from File → Import



## Download from SVN GEOTop code

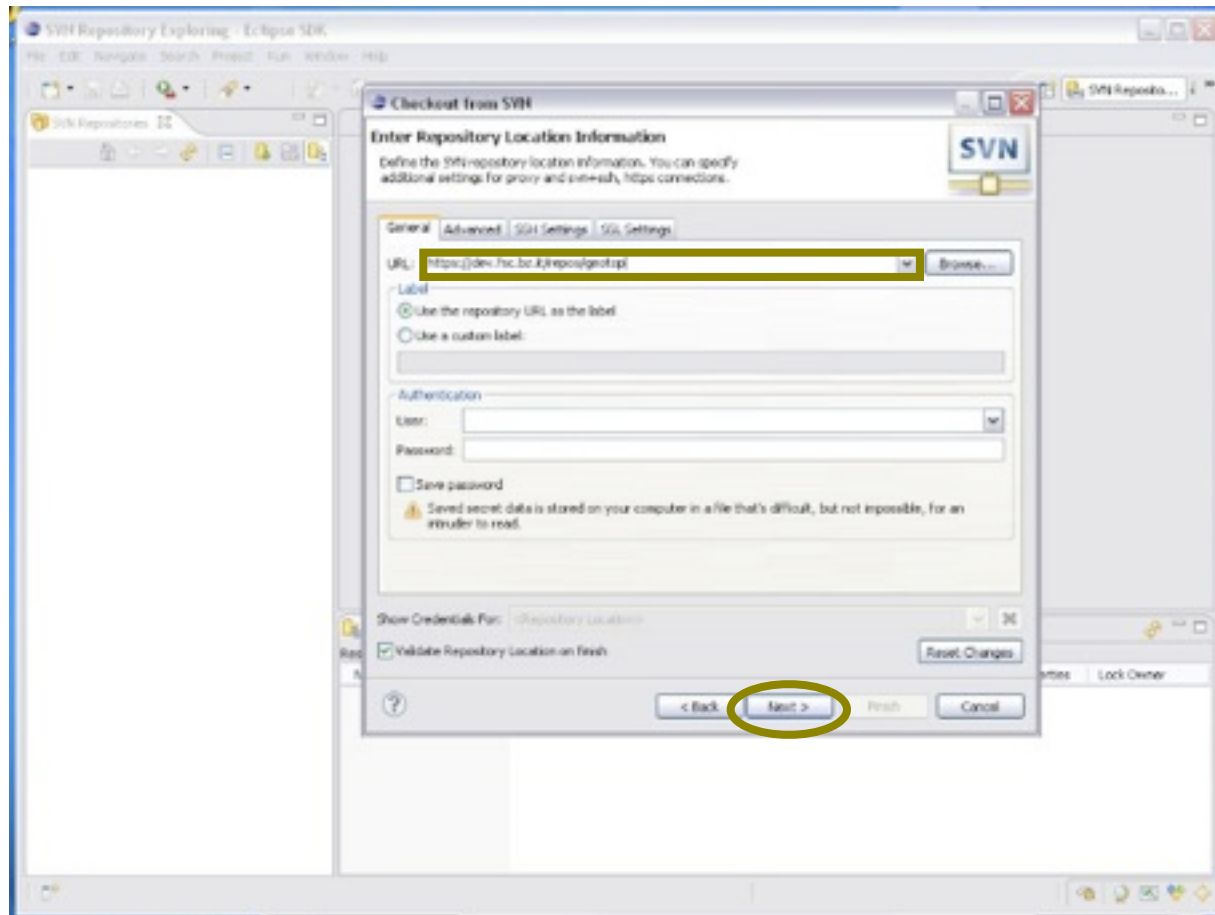


## Download from SVN GEOTop code



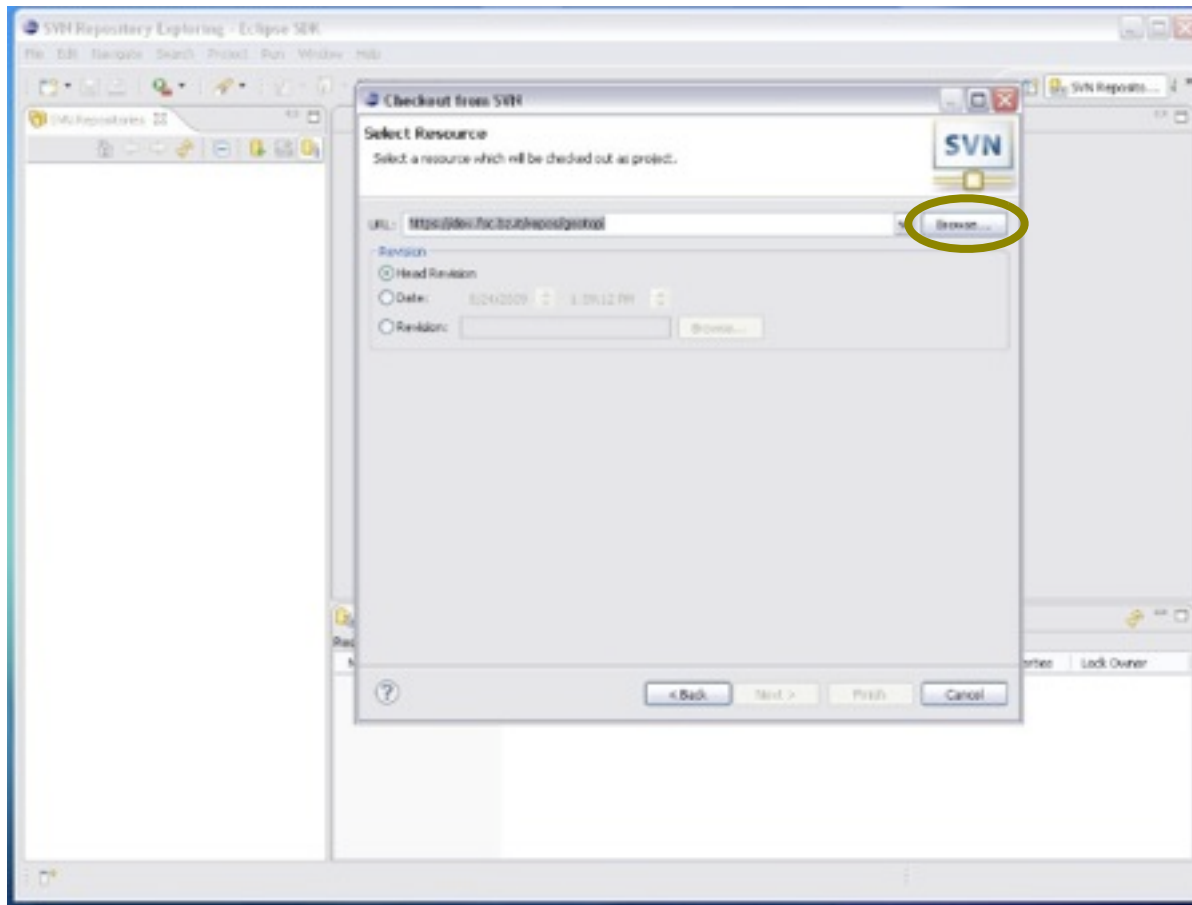
## Download from SVN GEOTop code

- Add the Url: <https://dev.fsc.bz.it/repos/geotop>



## Download from SVN GEOTop code

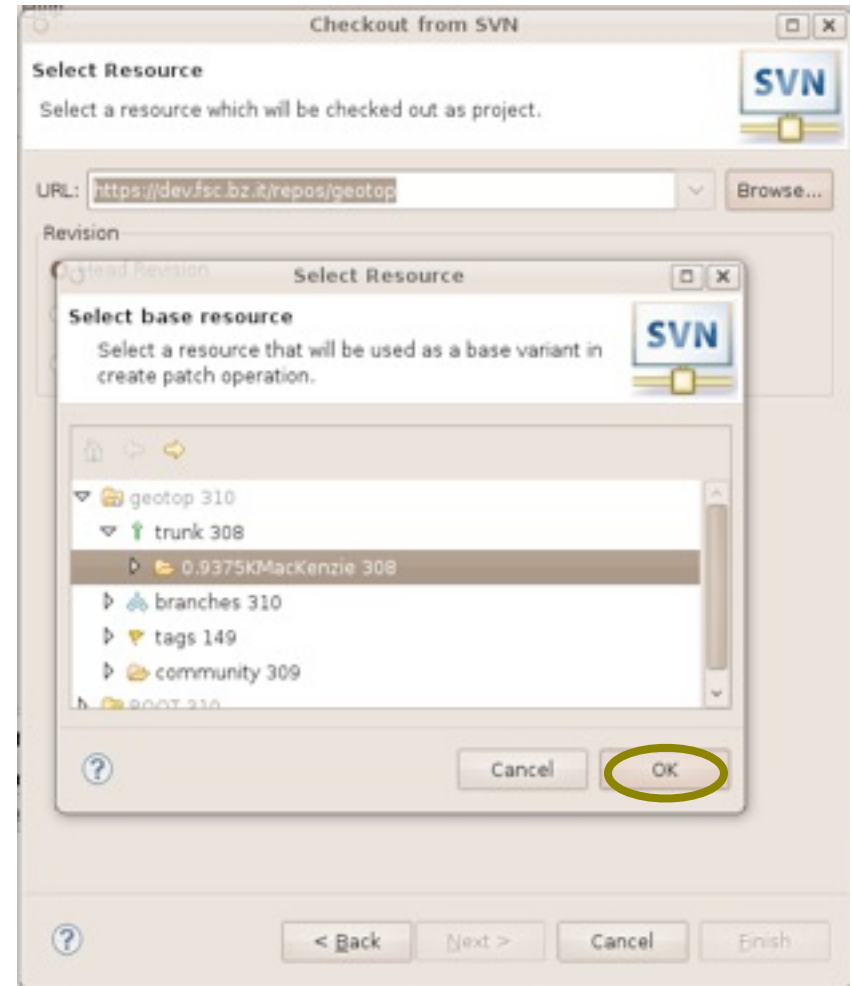
- Click on Browse...



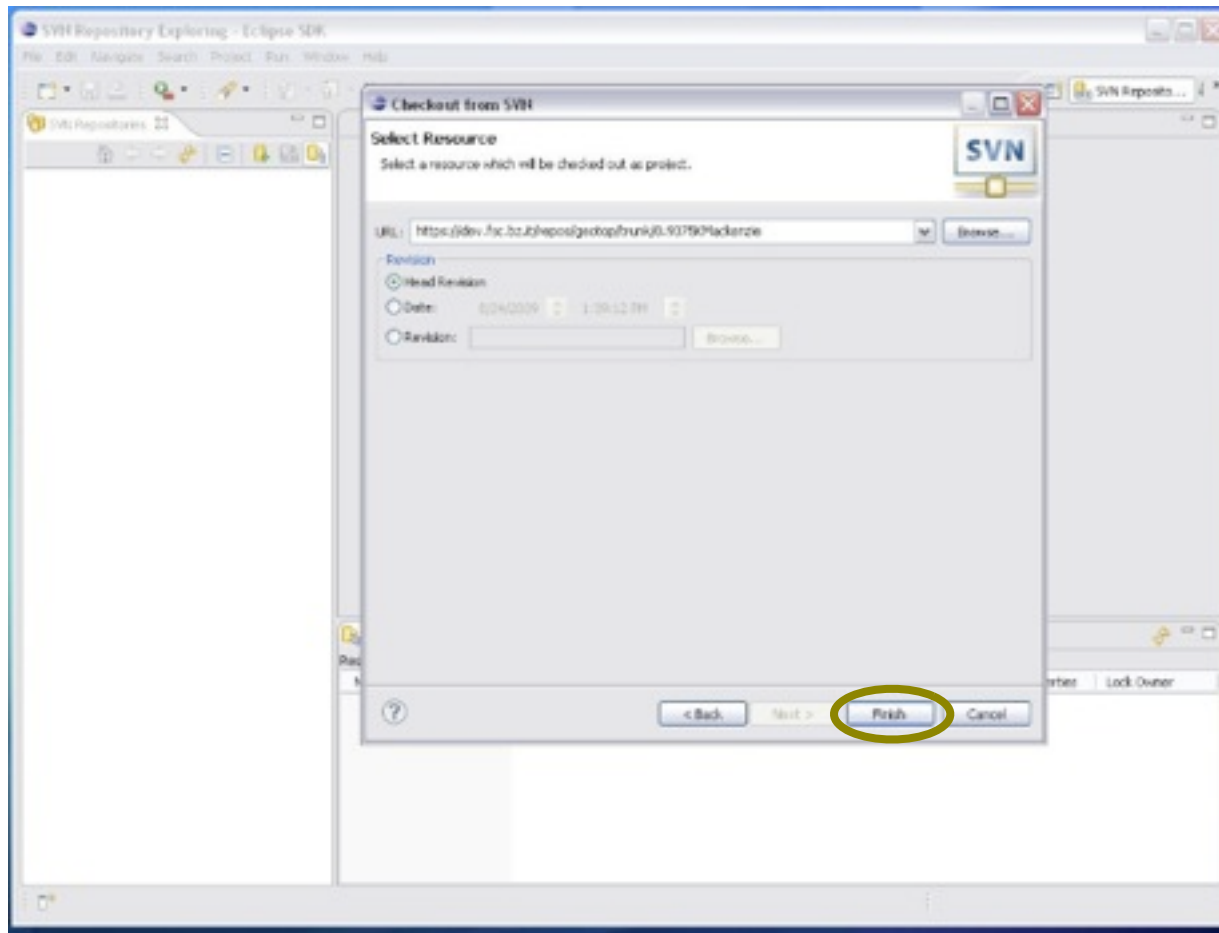
## Download from SVN GEOTop code

- From geotop → trunk → select 0.9375KMackenzie ##

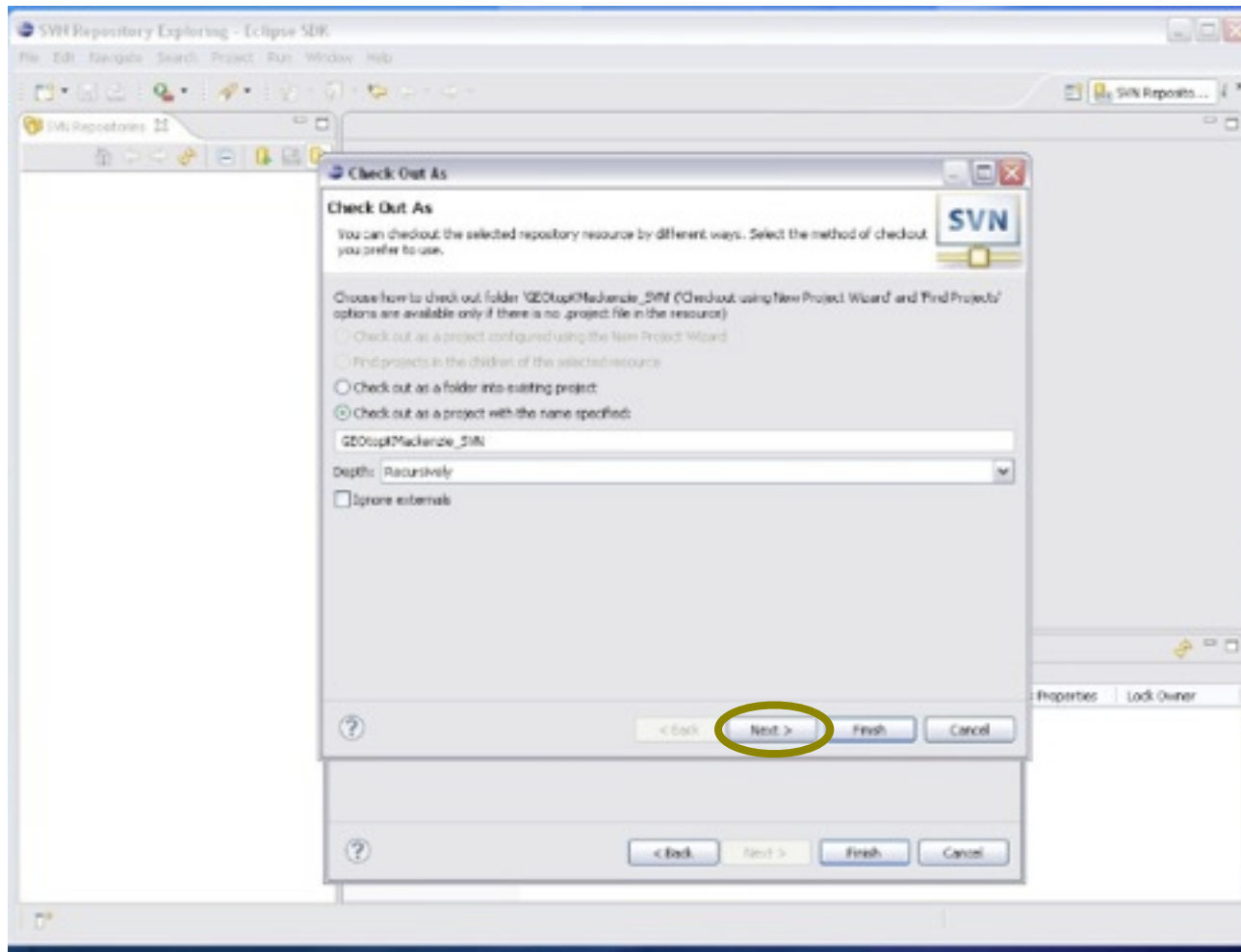
## is the current version (308 in the example)



## Download from SVN GEOTop code

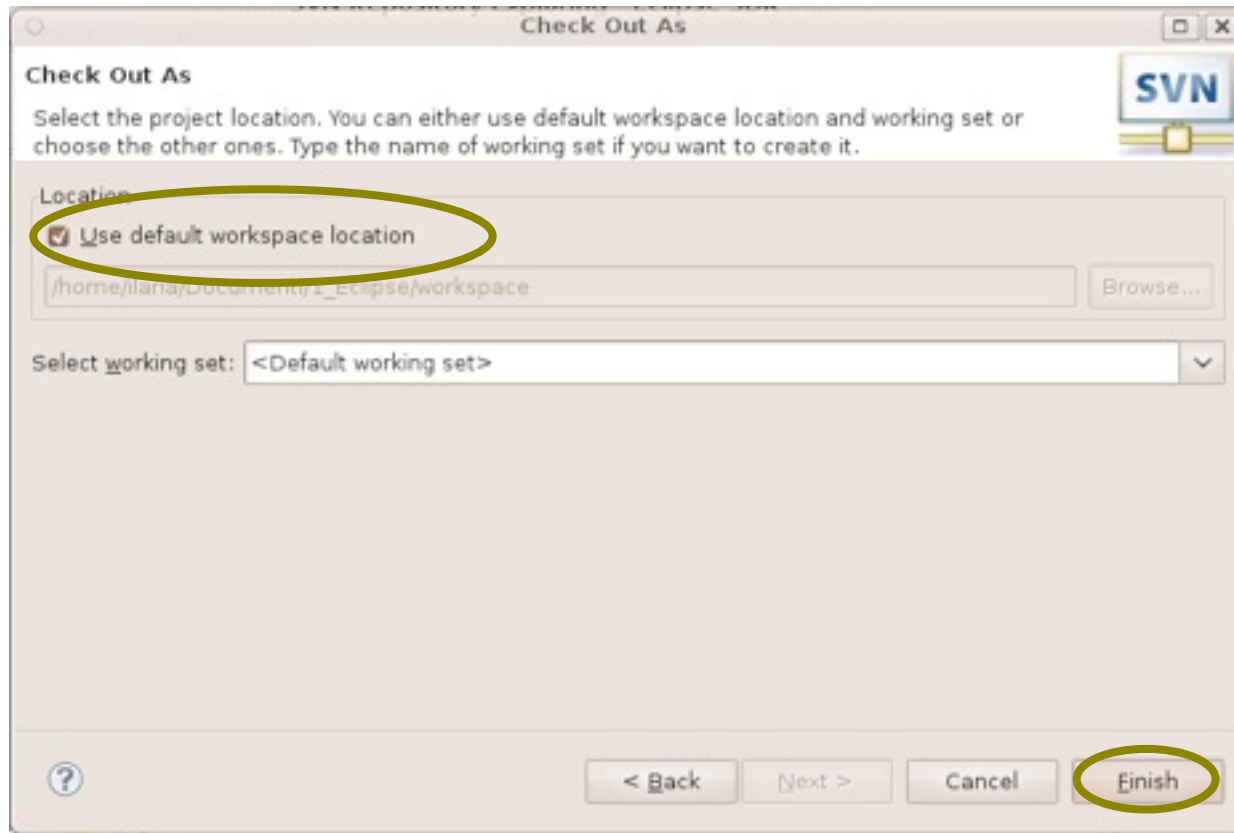


## Download from SVN GEOTop code



## Download from SVN GEOTop code

- Save in the workspace location path



Set the GNU compiler and math library

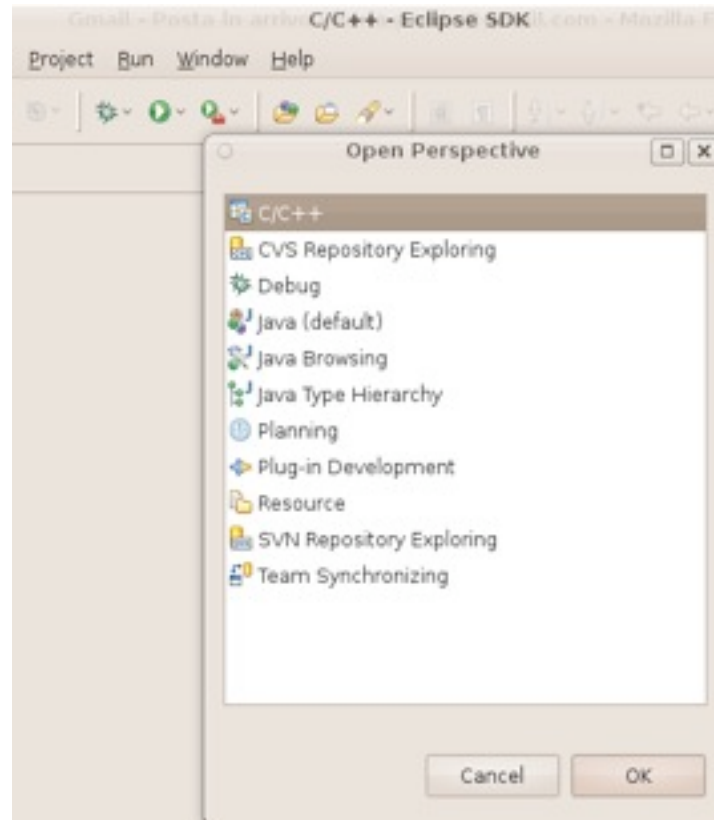
The code, once synchronized to the Repository, will automatically build. As the GNU compiler and the math library are not correctly settled yet, the following errors will be displayed:



```
C-Build [GEOTopKMacKenzie_SVN2]
/home/ilaria/Documenti/1_Eclipse/workspace/GEOTopKMacKenzie_SVN2/Debug/../../EXTERN/micromet.c:964: undefined
reference to `atan2'
/home/ilaria/Documenti/1_Eclipse/workspace/GEOTopKMacKenzie_SVN2/Debug/../../EXTERN/micromet.c:968: undefined
reference to `sqrt'
/home/ilaria/Documenti/1_Eclipse/workspace/GEOTopKMacKenzie_SVN2/Debug/../../EXTERN/micromet.c:968: undefined
reference to `atan'
collect2: ld returned 1 exit status
make: *** [GEOTopKMacKenzie_SVN2] Error 1
```

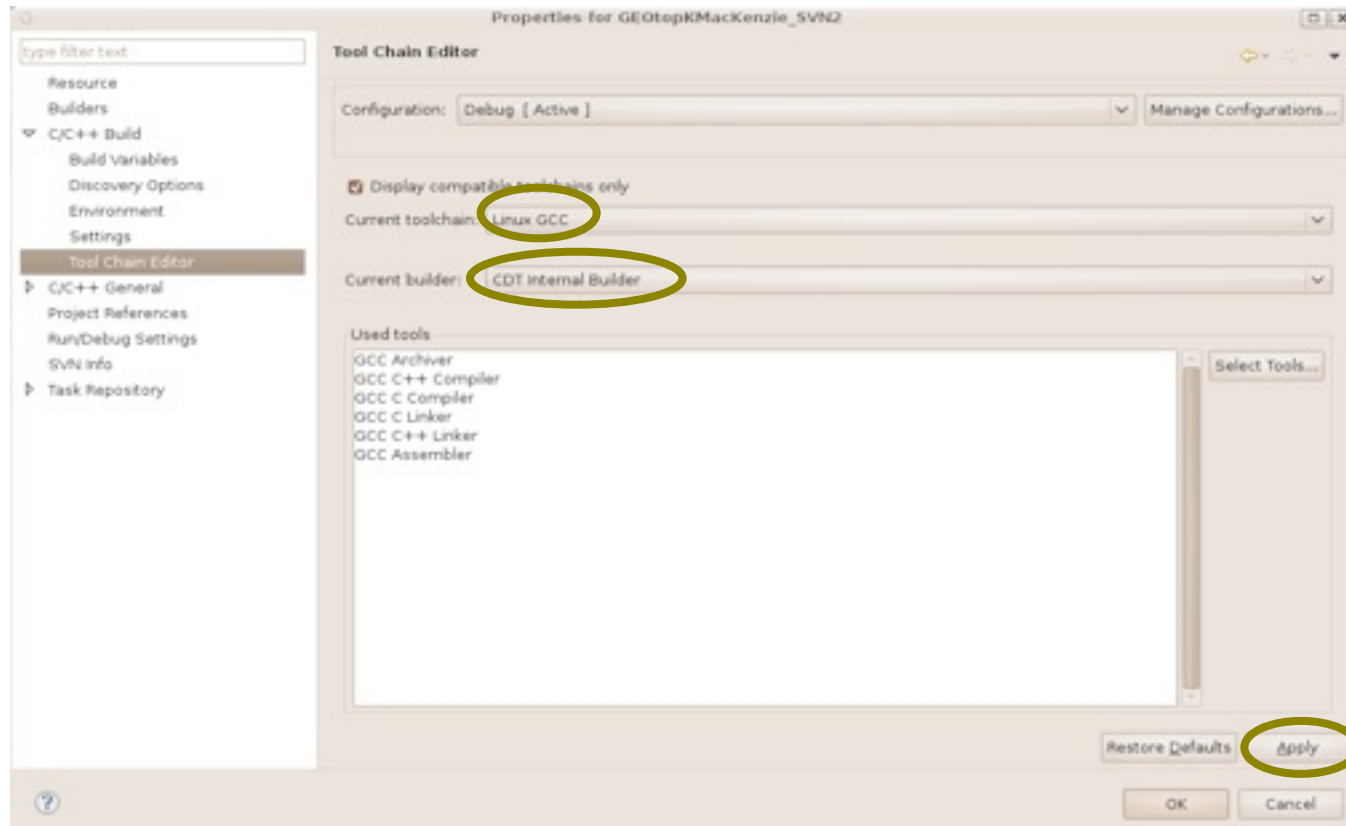
## Set C/C++ prospective

- In eclipse, from Window → Open prospective → Other → C/C++
- You will see the 'GEOtopKMacKenzie\_SVN' project



# LINUX

- Right click on GEOTopKMackenzie\_SVN folder
- Properties → C/C++ Build → Tool Chain Editor
- Current Tool chain: Linux GCC
- Current builder: CDT Internal Builder



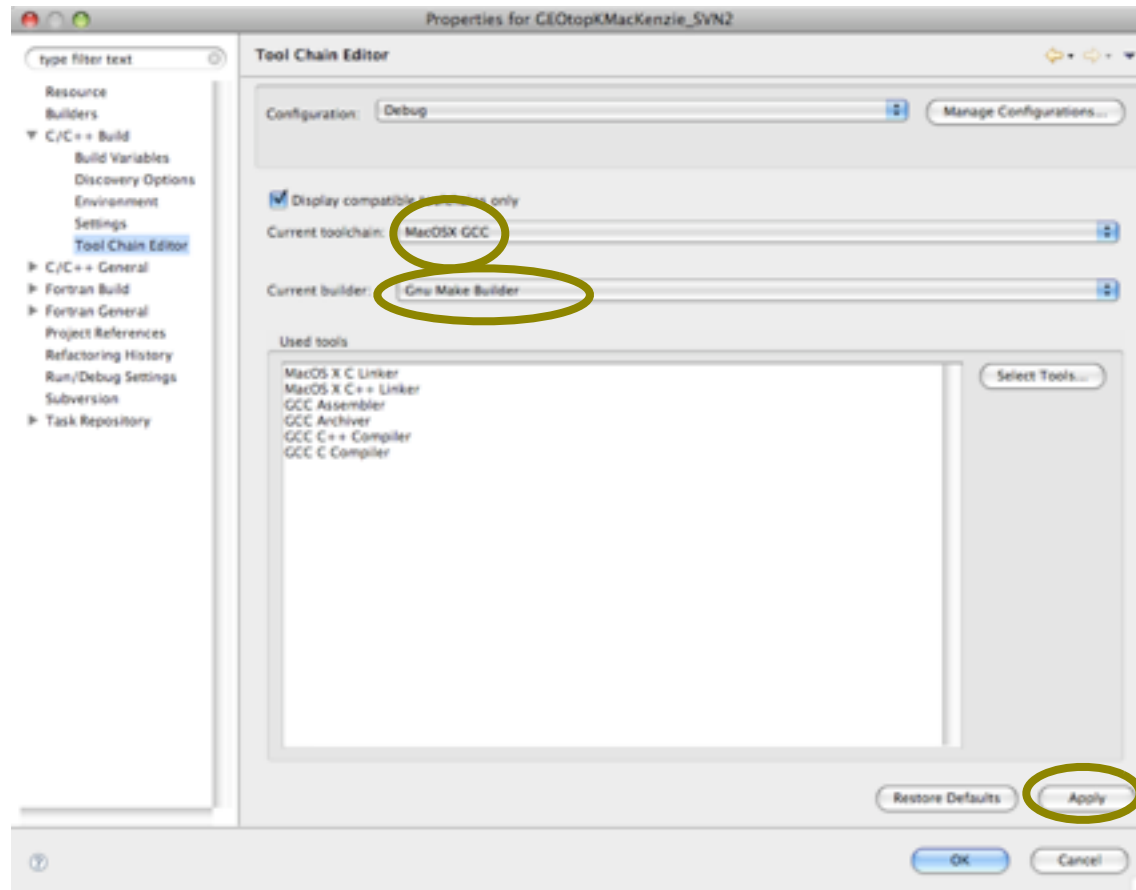
# MAC

Right click on GEOTopKMackenzie\_SVN folder

→ Proprieties → C/C++ Build → Tool Chain Editor

→ Current Tool chain: MacOSx GCC

→ Current builder: GNU Make Builder

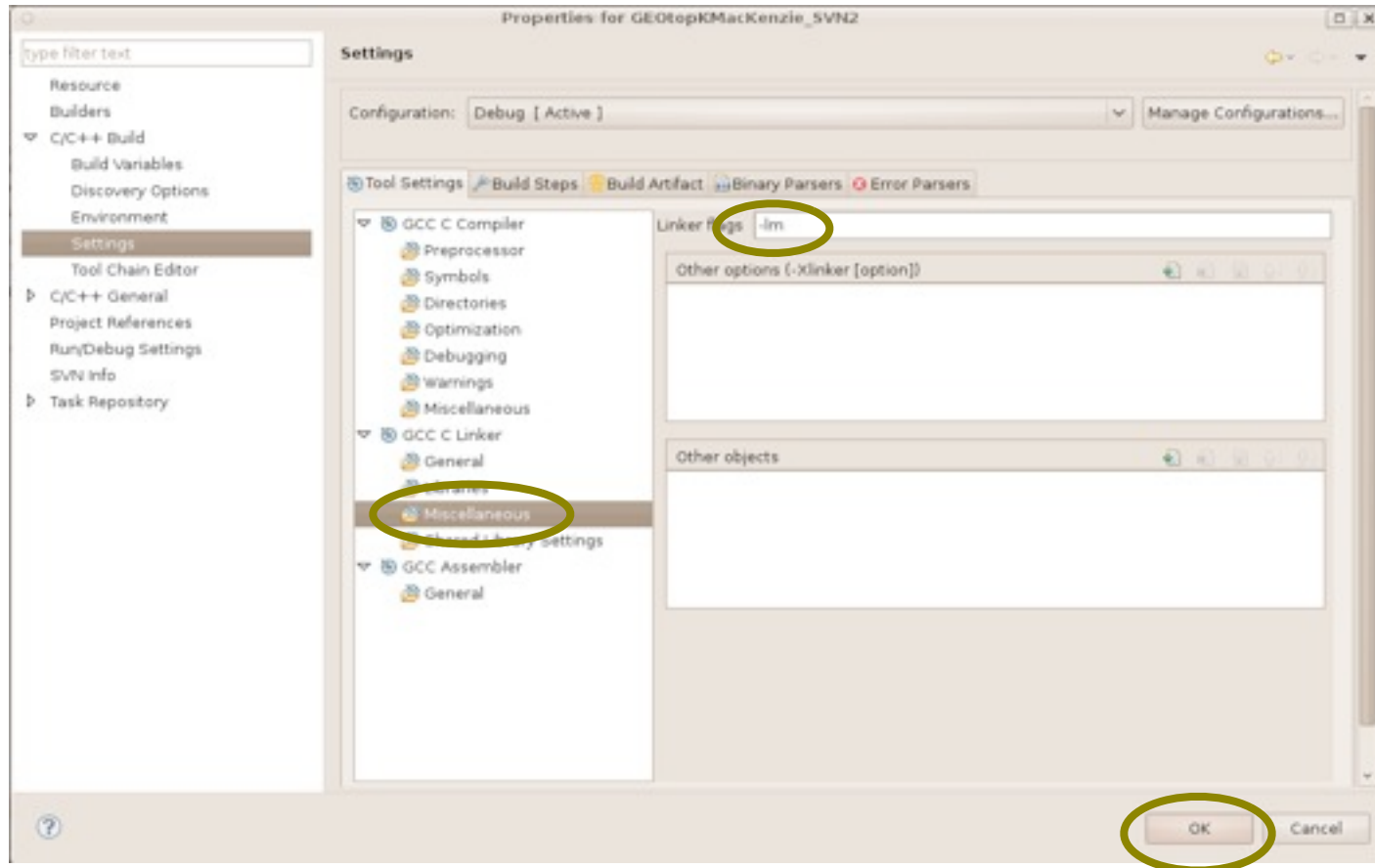


Right click on GEOTopKMackenzie\_SVN folder

→ Proprieties → C/C++ Build → Settings

→ GCC C Linker → Miscellaneous

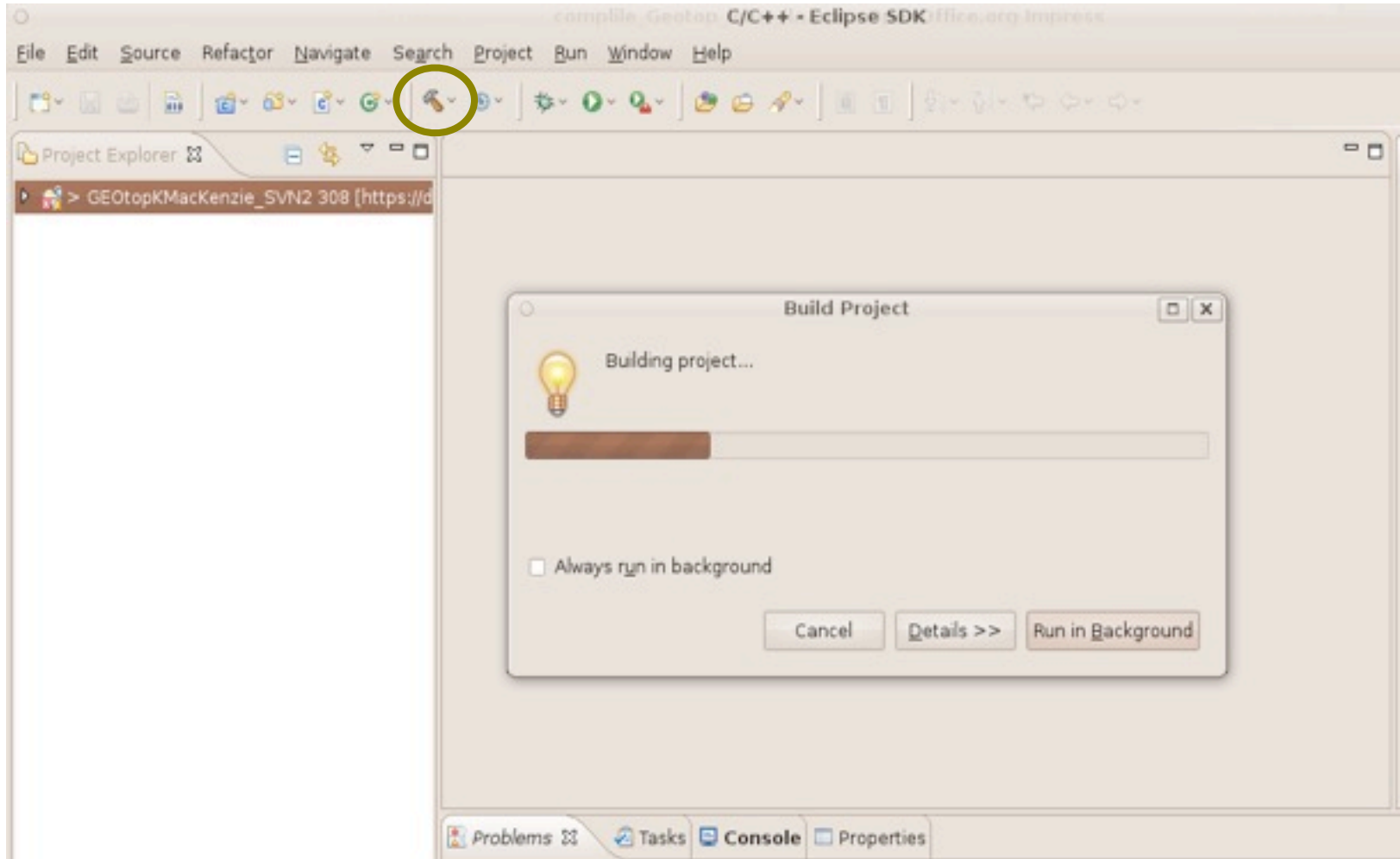
→ Linker flag: type “-lm” to activate math library



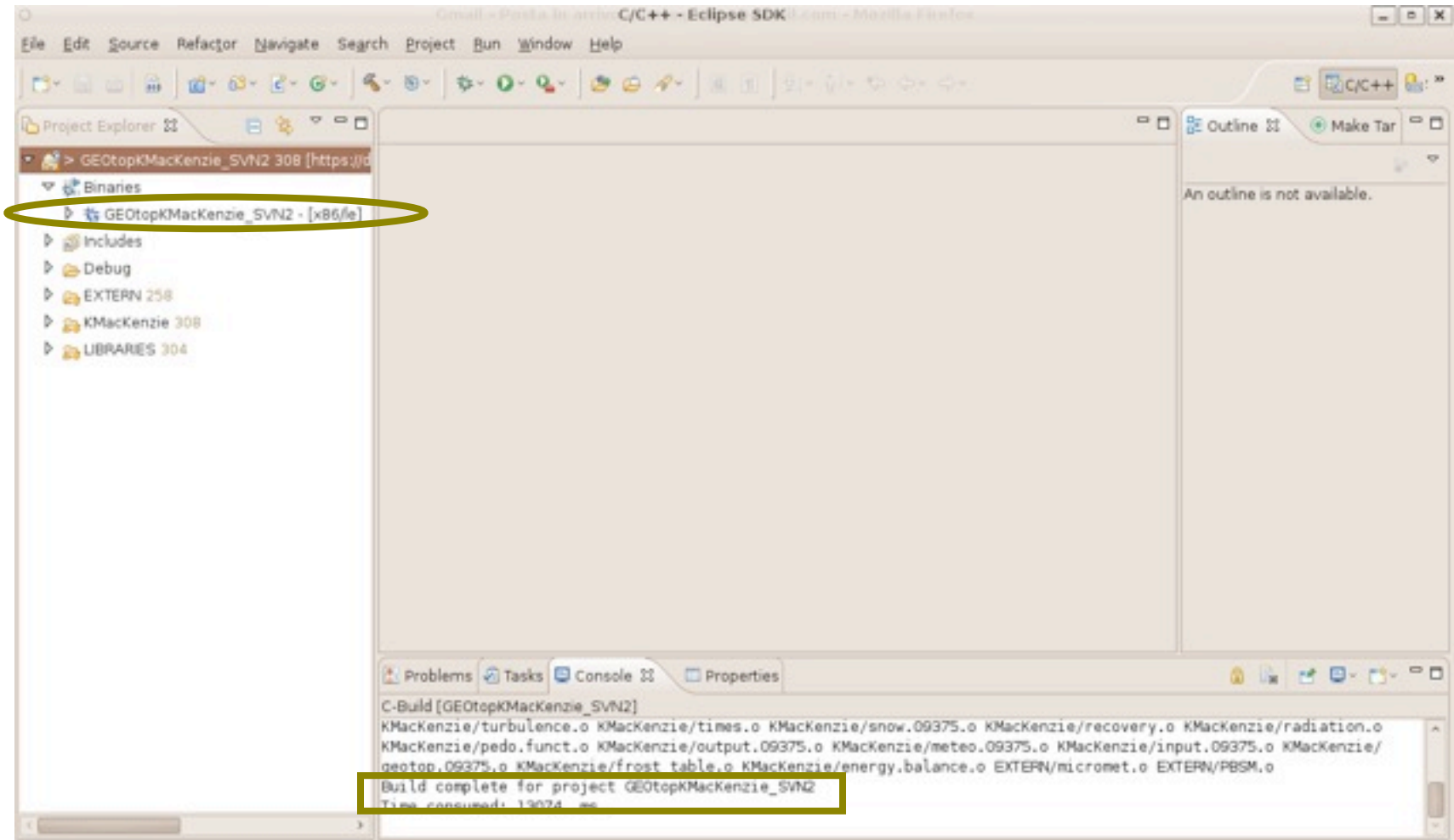
To build GEOTop C project

Now is possible to successfully build GEOTop

Click on the hammer symbol: Build 'Debug' for project 'GEOTopKMacKenzie\_SVN2'



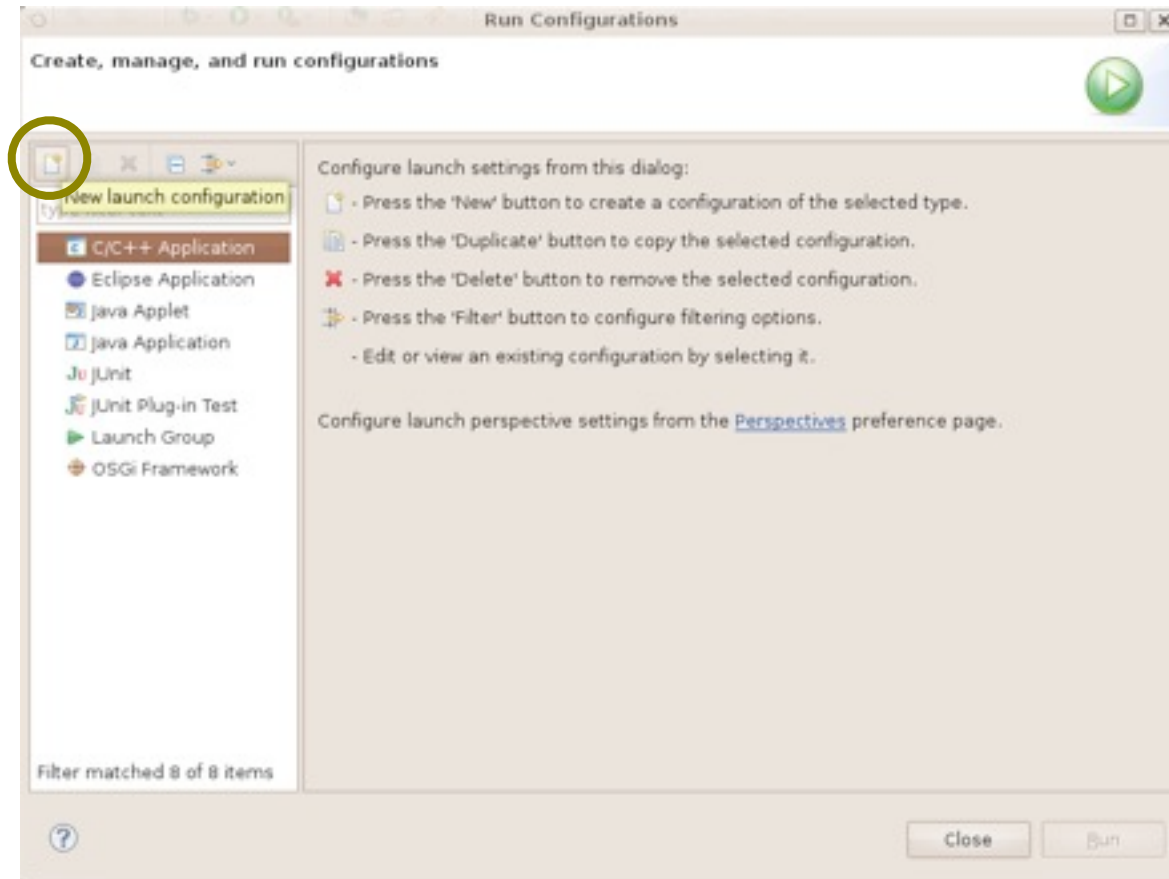
GEOTop executable has been built → The executable file is under the folder “Binaries”



To run GEOTop C project

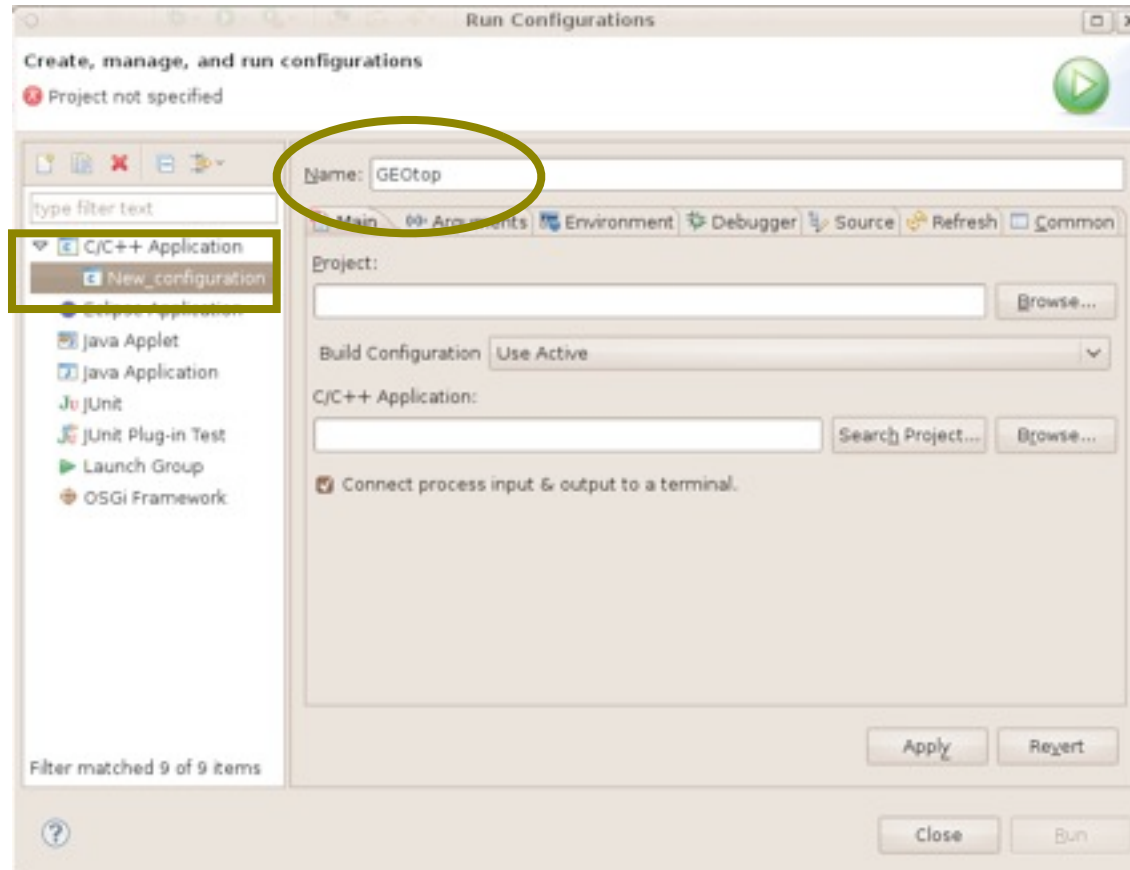
## To run GEOTop C project

- In Eclipse from Run → Run Configurations
- Click on the icon: New launch configuration



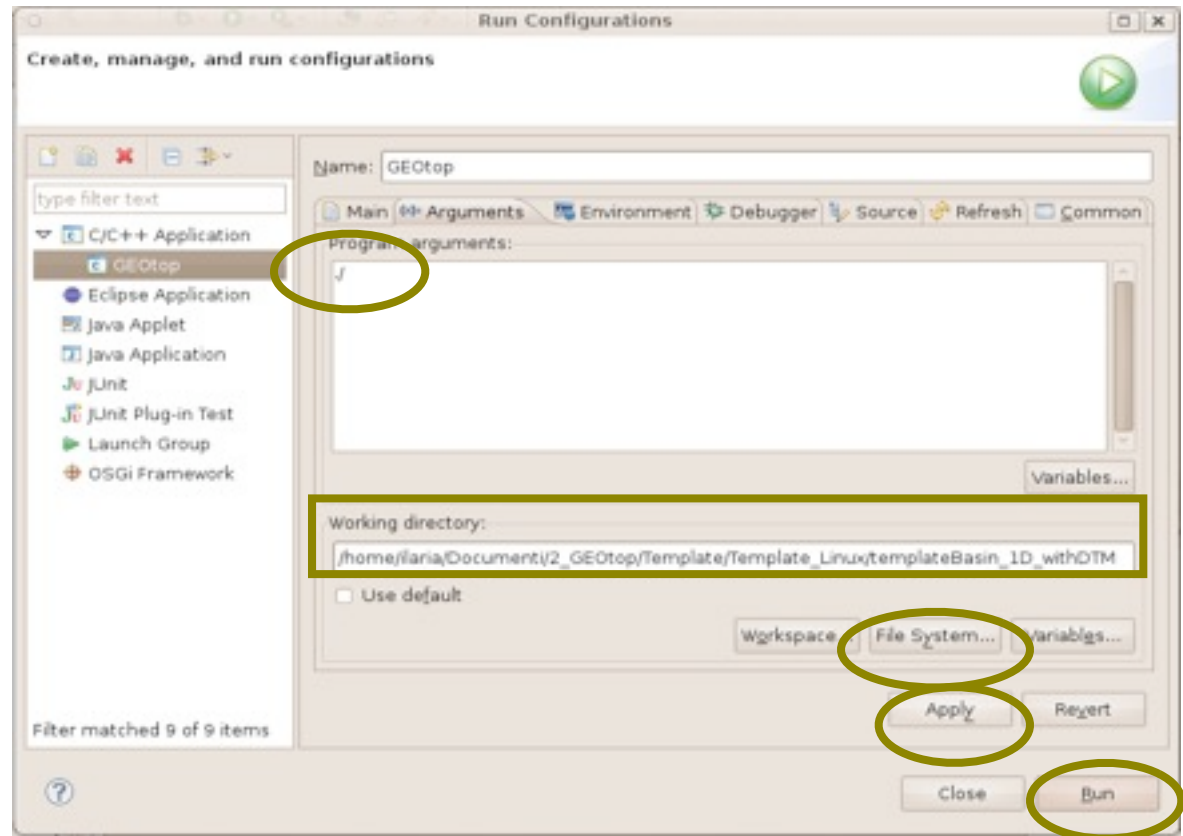
## To run GEOTop C project

- In Eclipse from Run → Run Configurations
- C/C++ Applications → click on 'New configuration'
- Name → Choose a name you like for the project, as for example: GEOTop

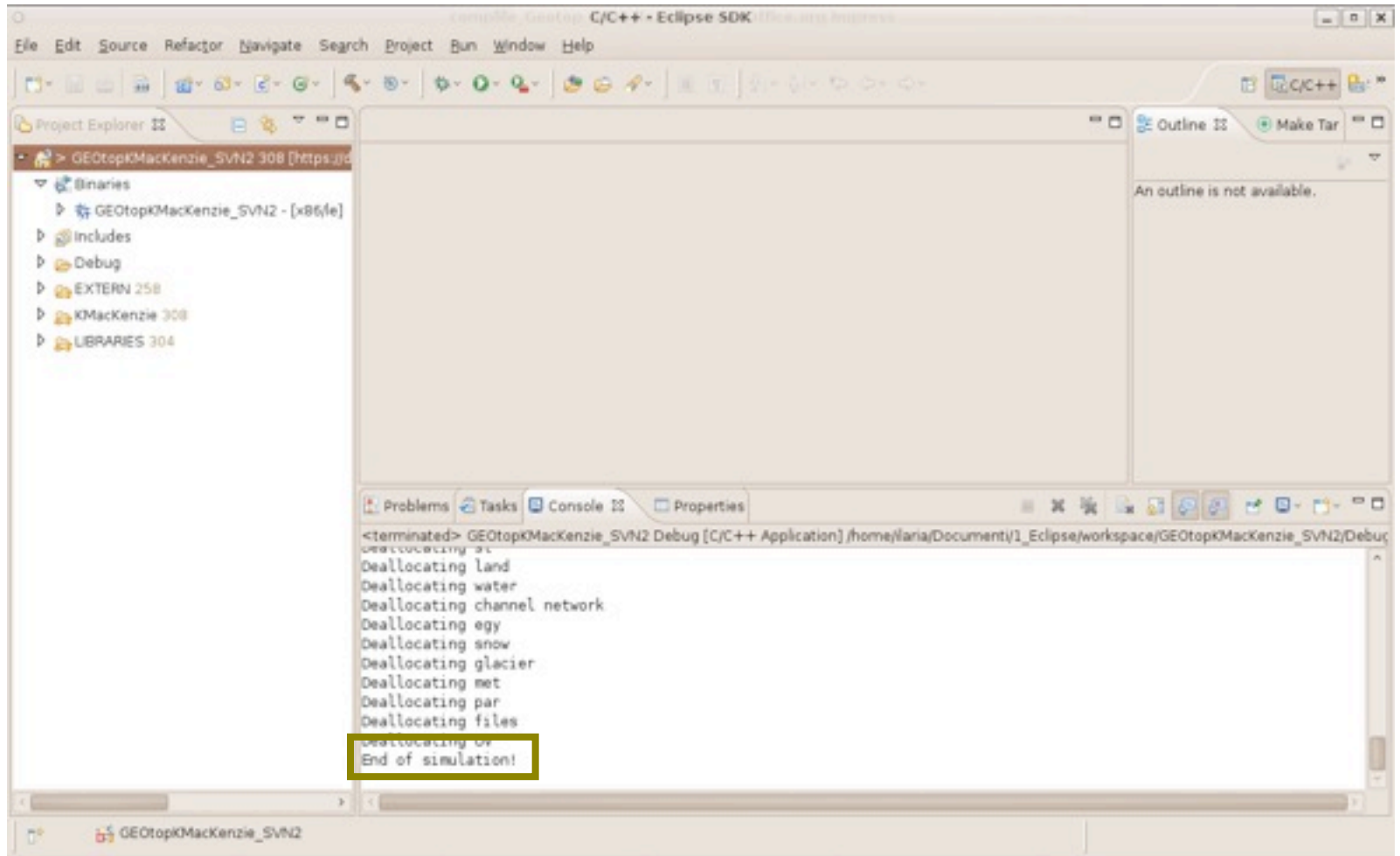


## To run GEOTop C project

- Arguments → Program Arguments → Type ./
- Working directory → Uncheck the 'Use default' string
- Working directory → Click on 'File System' → Select the path of the folder containing the input files for the simulation
- Click on 'Apply' button
- Click on 'Run' button



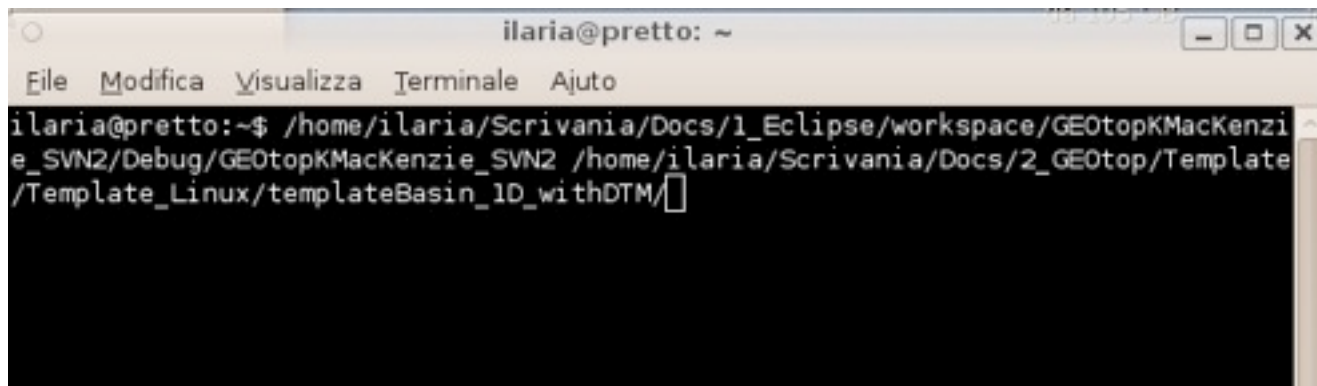
The simulation finished successfully



To run GEOtop by command prompt

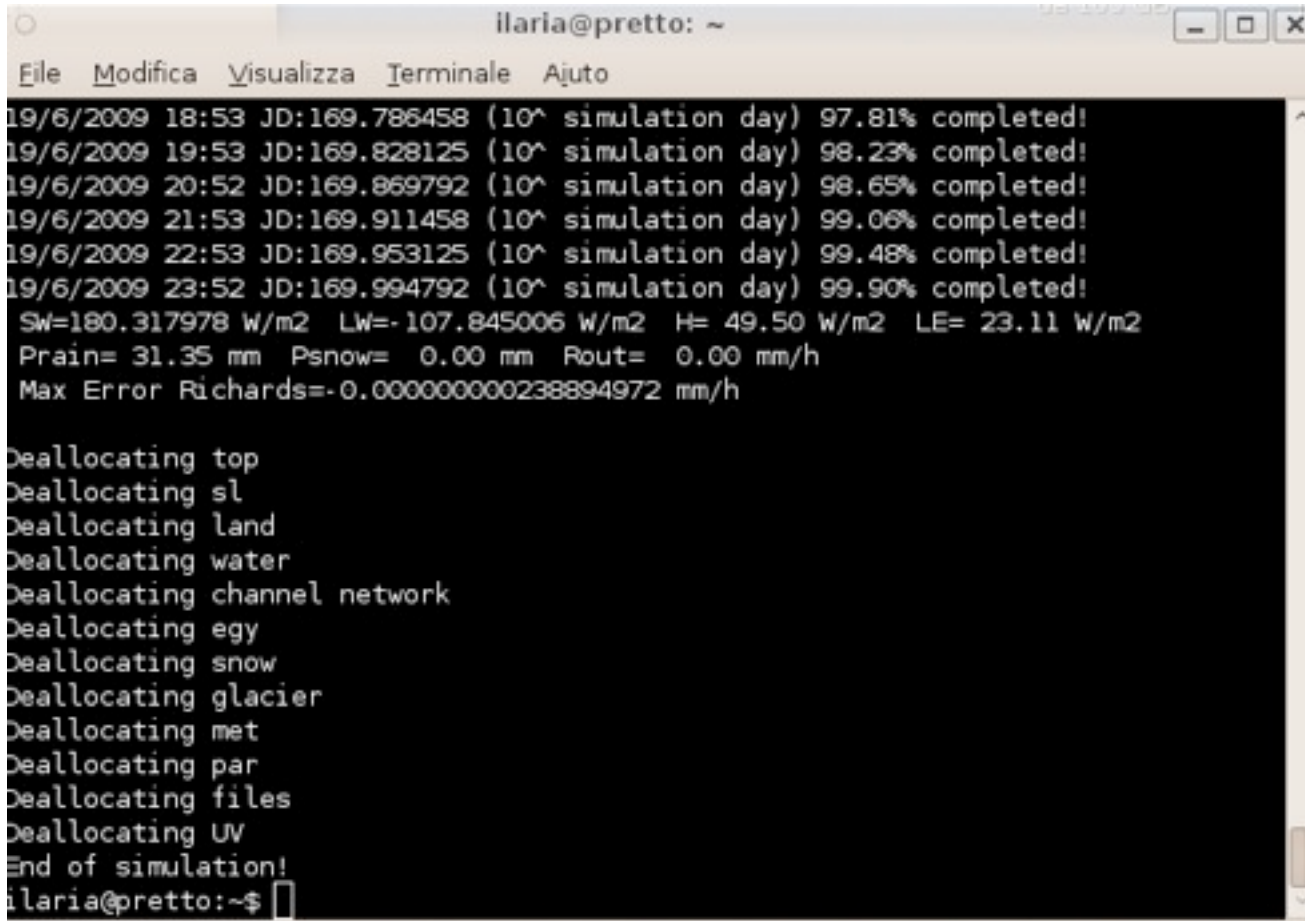
## To run GEOtop from the terminal

- Open a terminal and drag the executable 'GEOtopKMacKenzie\_SVN' in the terminal (the executable will be in your workspace under 'workspace/GEOtopKMacKenzie/SVN/Debug');
- Leave one space;
- Drag in the command prompt the folder where the GEOtop input files are;
- Type "/" (slash)



The screenshot shows a terminal window titled 'ilaria@prezzo: ~'. The menu bar includes 'File', 'Modifica', 'Visualizza', 'Terminale', and 'Ajuto'. The terminal content shows the user entering a long path: `/home/ilaria/Scrivania/Docs/1_Eclipse/workspace/GEOtopKMacKenzie_SVN2/Debug/GEOtopKMacKenzie_SVN2 /home/ilaria/Scrivania/Docs/2_GEOtop/Template/Template_Linux/templateBasin_1D_withDTM/`. The cursor is at the end of the path.

The simulation finished successfully

A terminal window titled 'ilaria@prezzo: ~' with a menu bar containing 'File', 'Modifica', 'Visualizza', 'Terminale', and 'Ajuto'. The terminal output shows a simulation progress log for 19/6/2009, with completion percentages increasing from 97.81% to 99.90% over the day. It also lists various simulation parameters like SW, LW, H, LE, Prain, Psnow, Rout, and Max Error Richards. The simulation ends with a series of 'Deallocating' messages for different components and 'End of simulation!'. The prompt 'ilaria@prezzo:~\$' is visible at the bottom.

```
ilaria@prezzo: ~
File Modifica Visualizza Terminale Ajuto
19/6/2009 18:53 JD:169.786458 (10^ simulation day) 97.81% completed!
19/6/2009 19:53 JD:169.828125 (10^ simulation day) 98.23% completed!
19/6/2009 20:52 JD:169.869792 (10^ simulation day) 98.65% completed!
19/6/2009 21:53 JD:169.911458 (10^ simulation day) 99.06% completed!
19/6/2009 22:53 JD:169.953125 (10^ simulation day) 99.48% completed!
19/6/2009 23:52 JD:169.994792 (10^ simulation day) 99.90% completed!
SW=180.317978 W/m2 LW=-107.845006 W/m2 H= 49.50 W/m2 LE= 23.11 W/m2
Prain= 31.35 mm Psnow= 0.00 mm Rout= 0.00 mm/h
Max Error Richards=-0.000000000238894972 mm/h

Deallocating top
Deallocating sl
Deallocating land
Deallocating water
Deallocating channel network
Deallocating egy
Deallocating snow
Deallocating glacier
Deallocating met
Deallocating par
Deallocating files
Deallocating UV
End of simulation!
ilaria@prezzo:~$
```

# HAVE FUN!!!

In case of problems, please subscribe to the mailing list:

[list-geotopusers@ing.unitn.it](mailto:list-geotopusers@ing.unitn.it)