

Compiling GEOTop KMacKenzie with Eclipse on Windows



G. Formetta, C. Cuell, S. Endrizzi

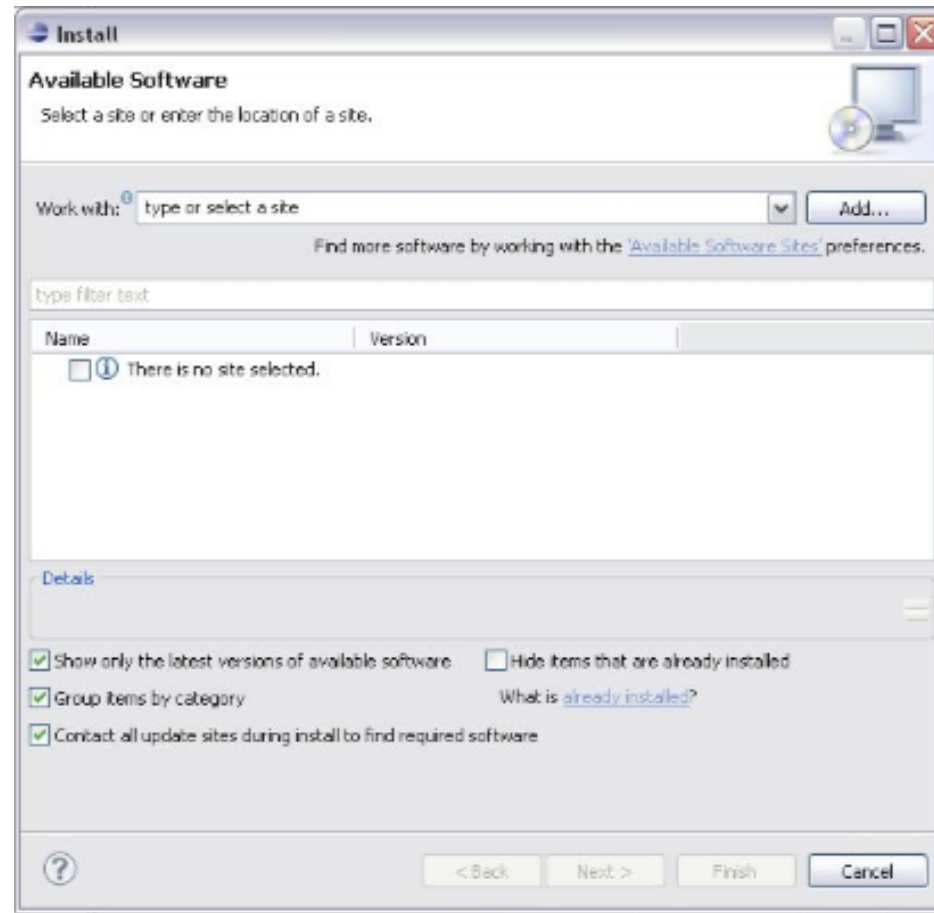
You need install:

- Eclipse Galileo
- SVN packages for eclipse Galileo
- CDT packages for eclipse Galileo
- MinGW, “Minimalist GNU for Windows”
- MSYS, “Minimal SYStem”

CDT packages for eclipse Galileo

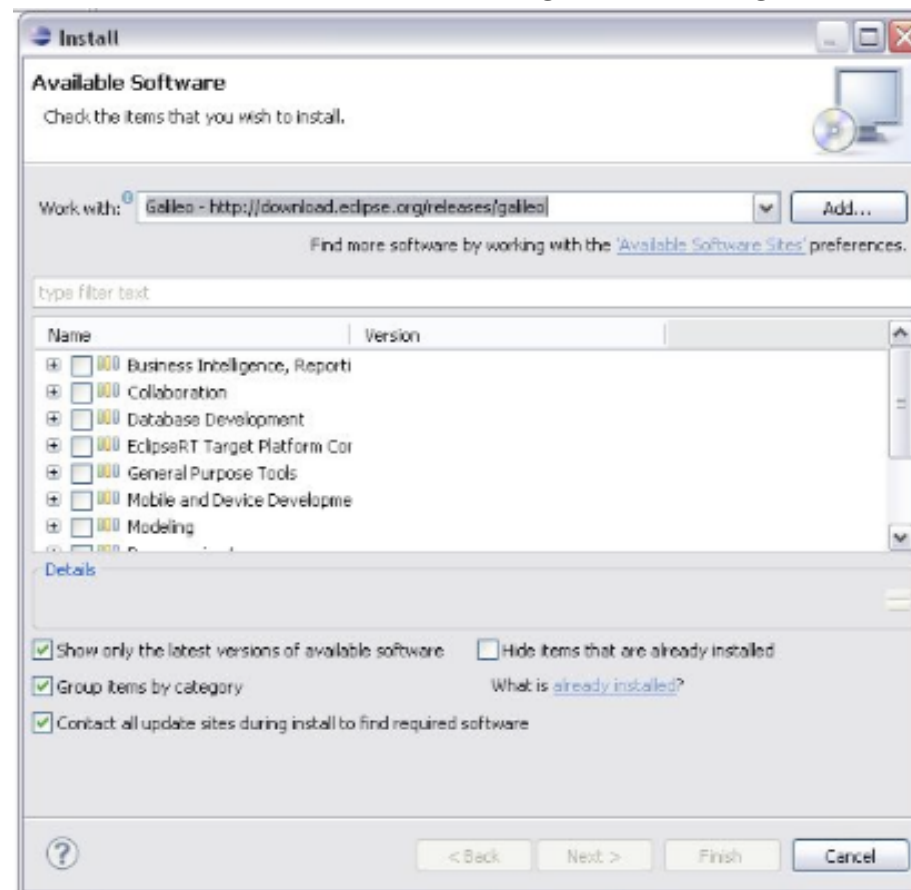
CDT: Eclipse C/C++ Development Tooling

- From Help → Install New Software

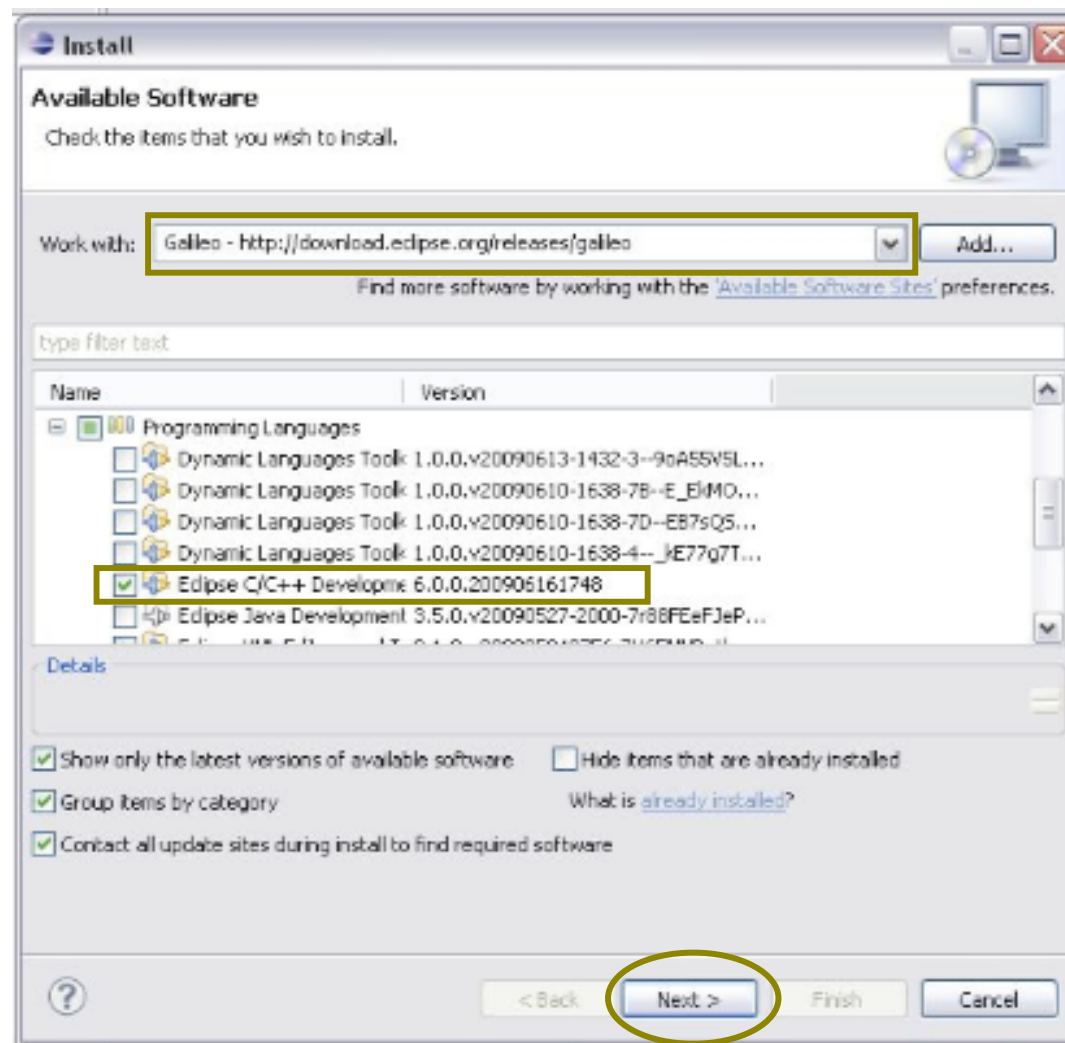


CDT: Eclipse C/C++ Development Tooling

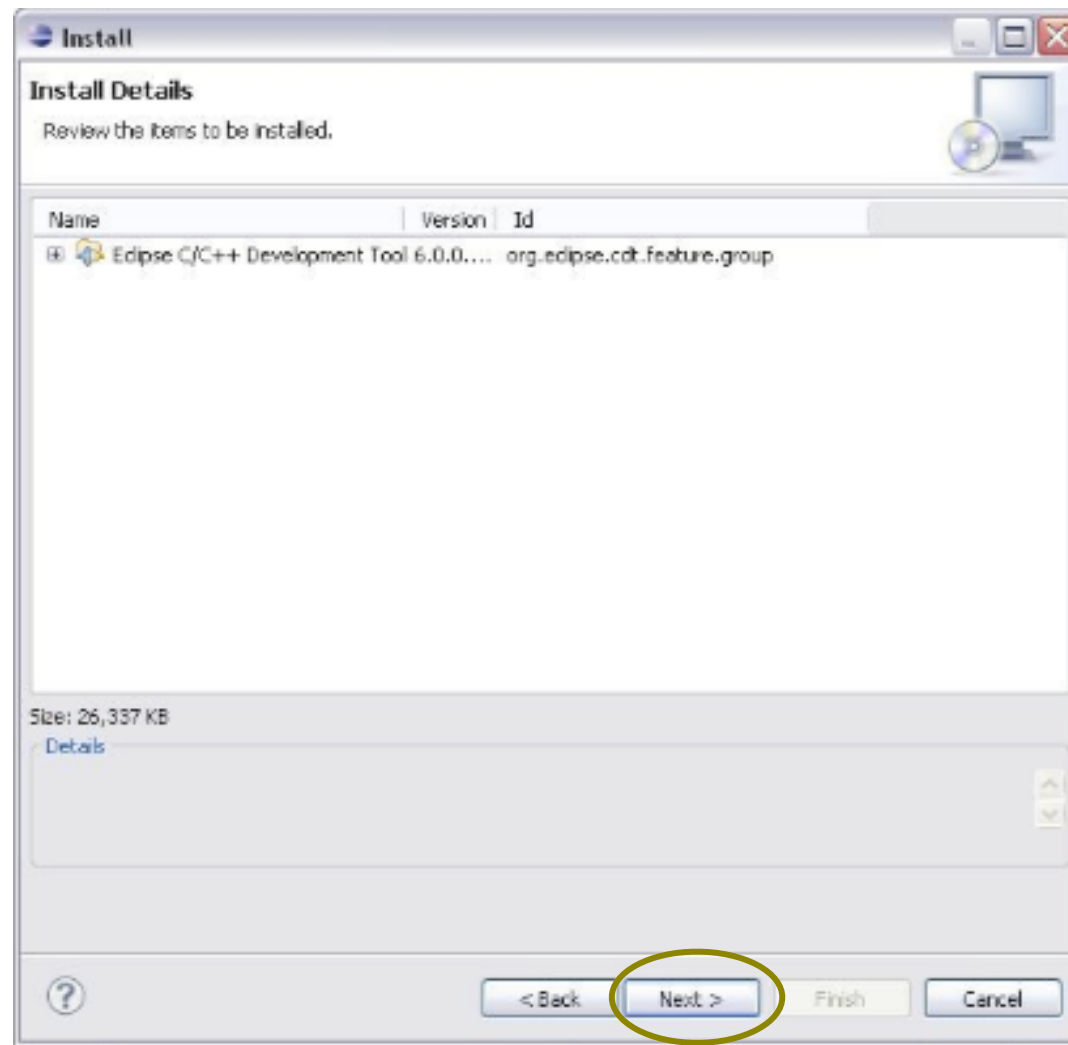
- From Help → Install New Software
- Work with: Galileo - <http://download.eclipse.org/releases/galileo>



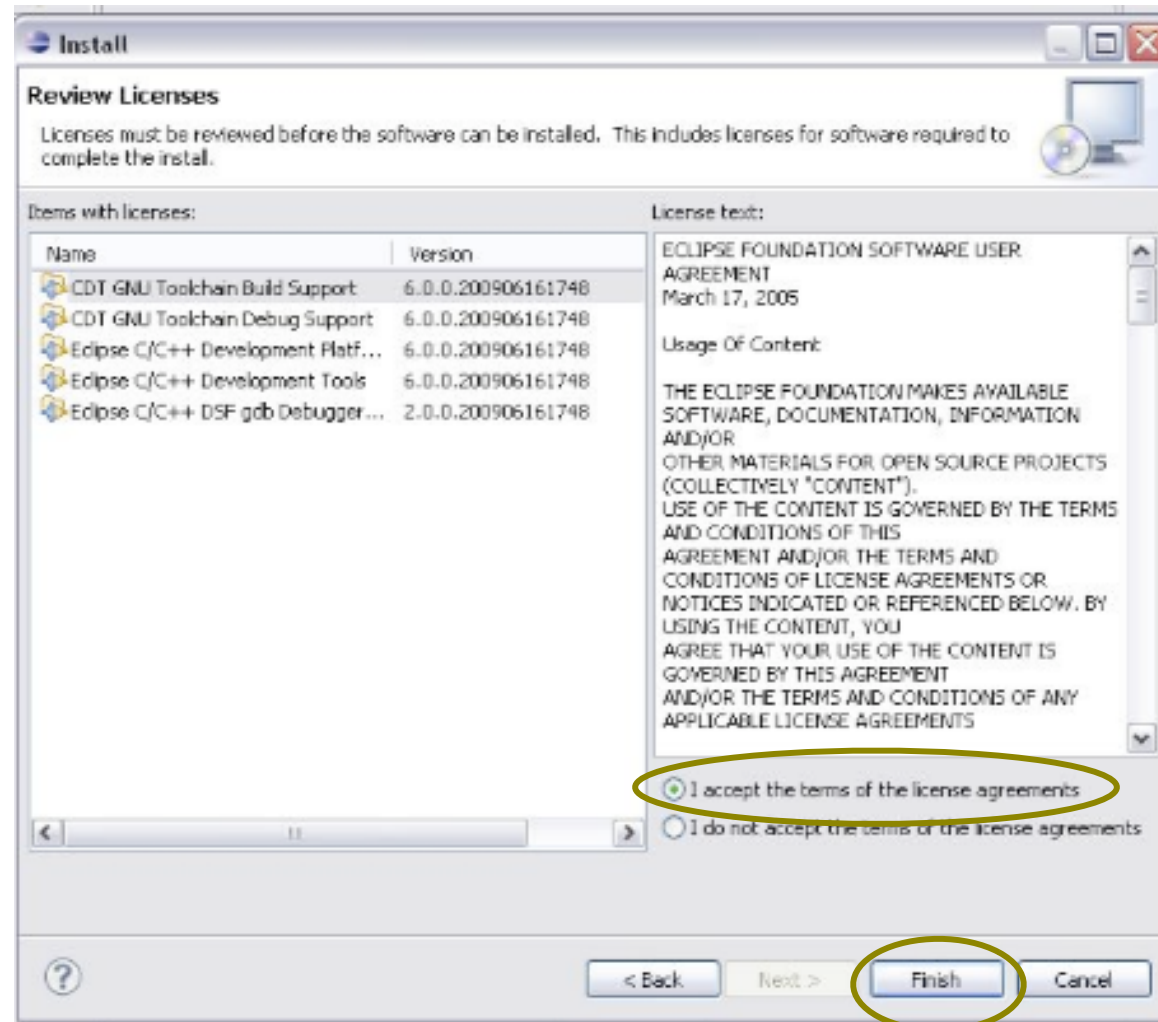
CDT: Eclipse C/C++ Development Tooling



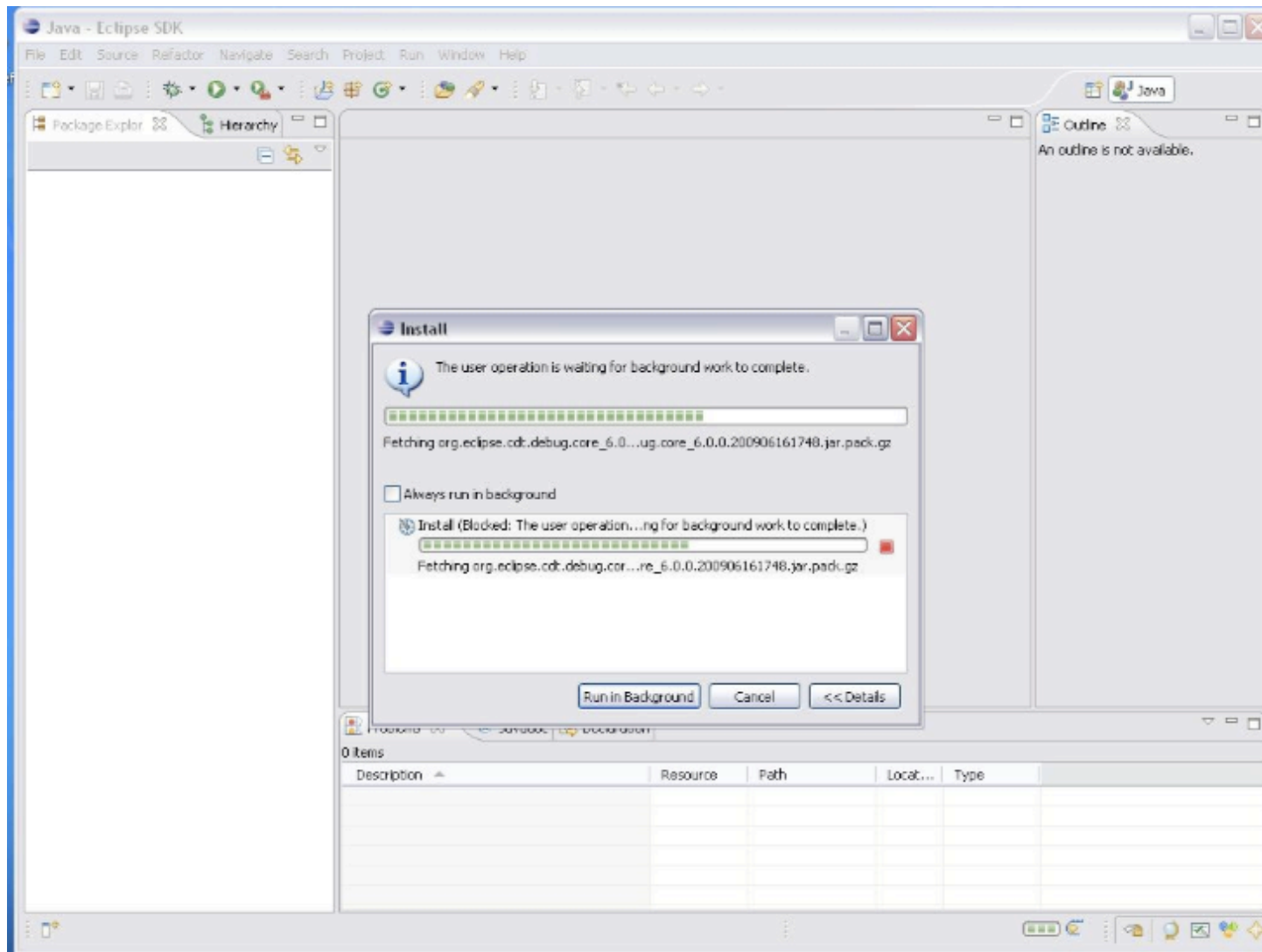
CDT: Eclipse C/C++ Development Tooling



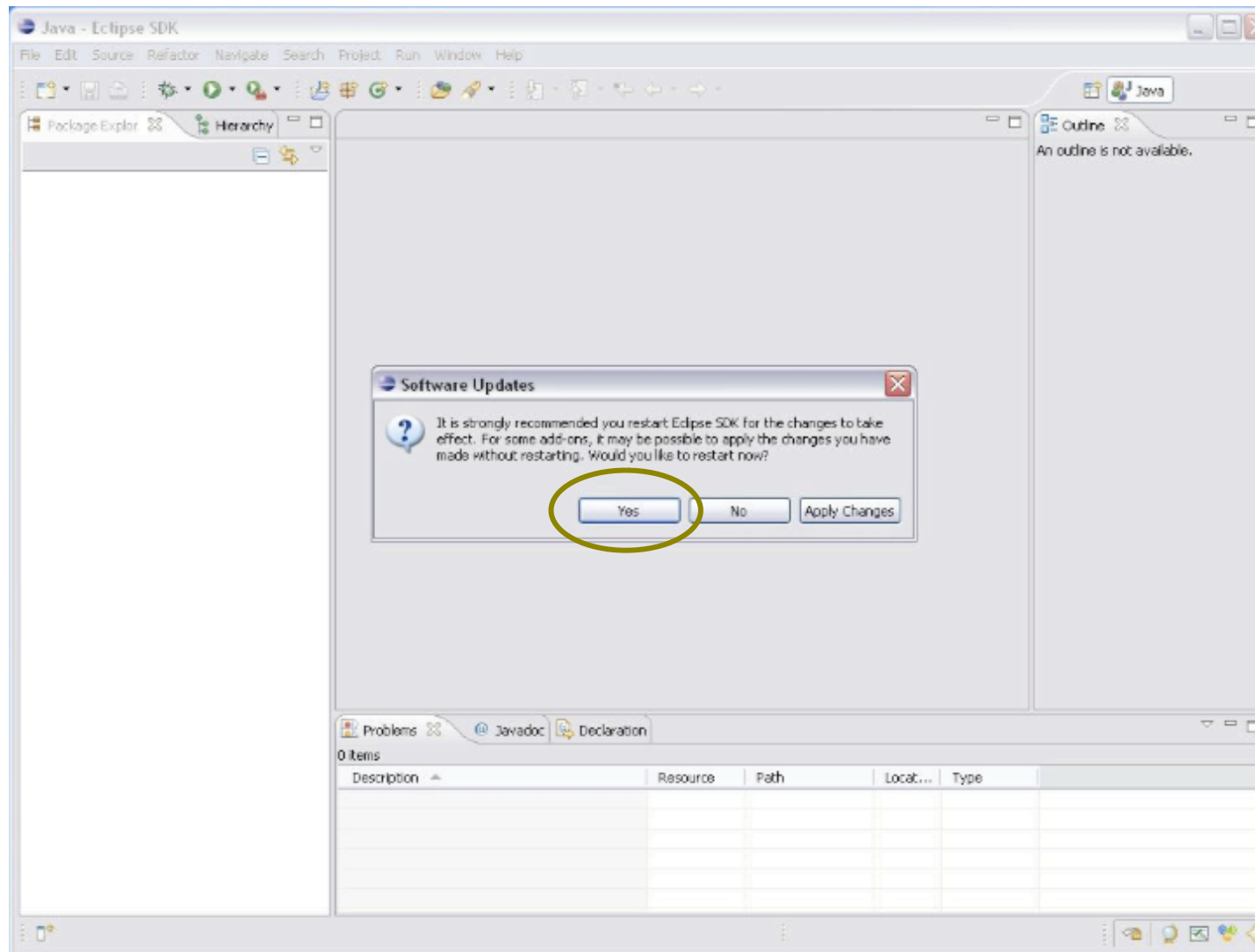
CDT: Eclipse C/C++ Development Tooling



CDT: Eclipse C/C++ Development Tooling



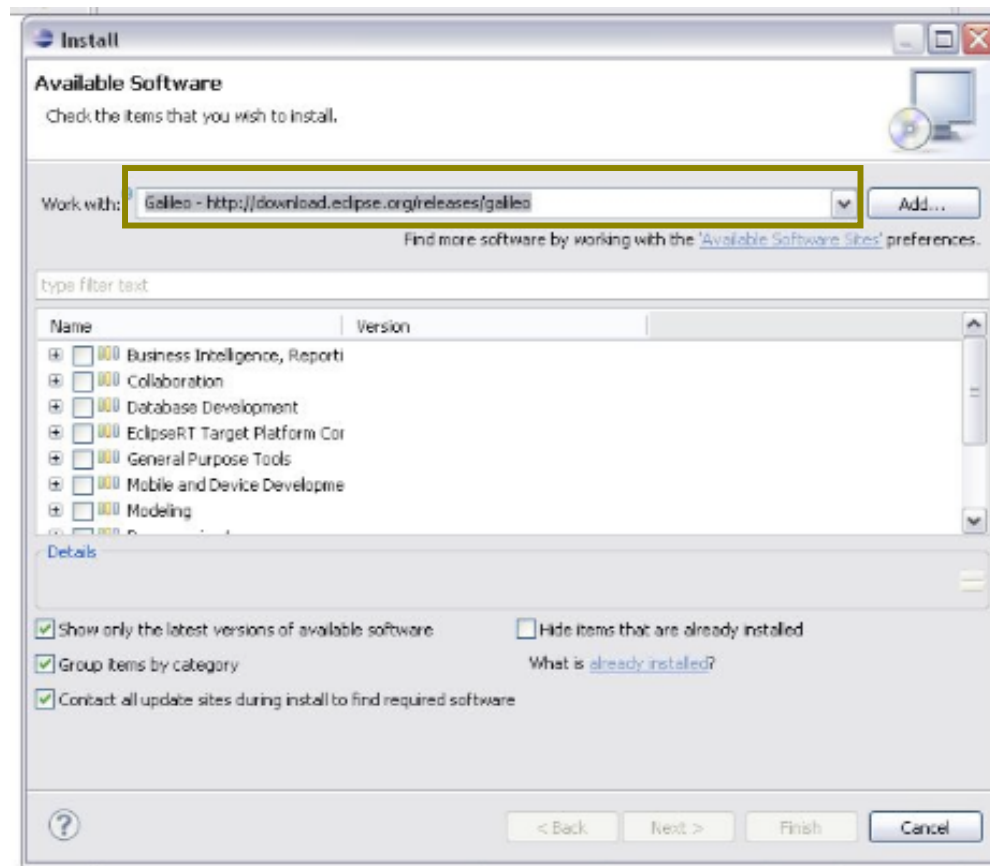
CDT: Eclipse C/C++ Development Tooling



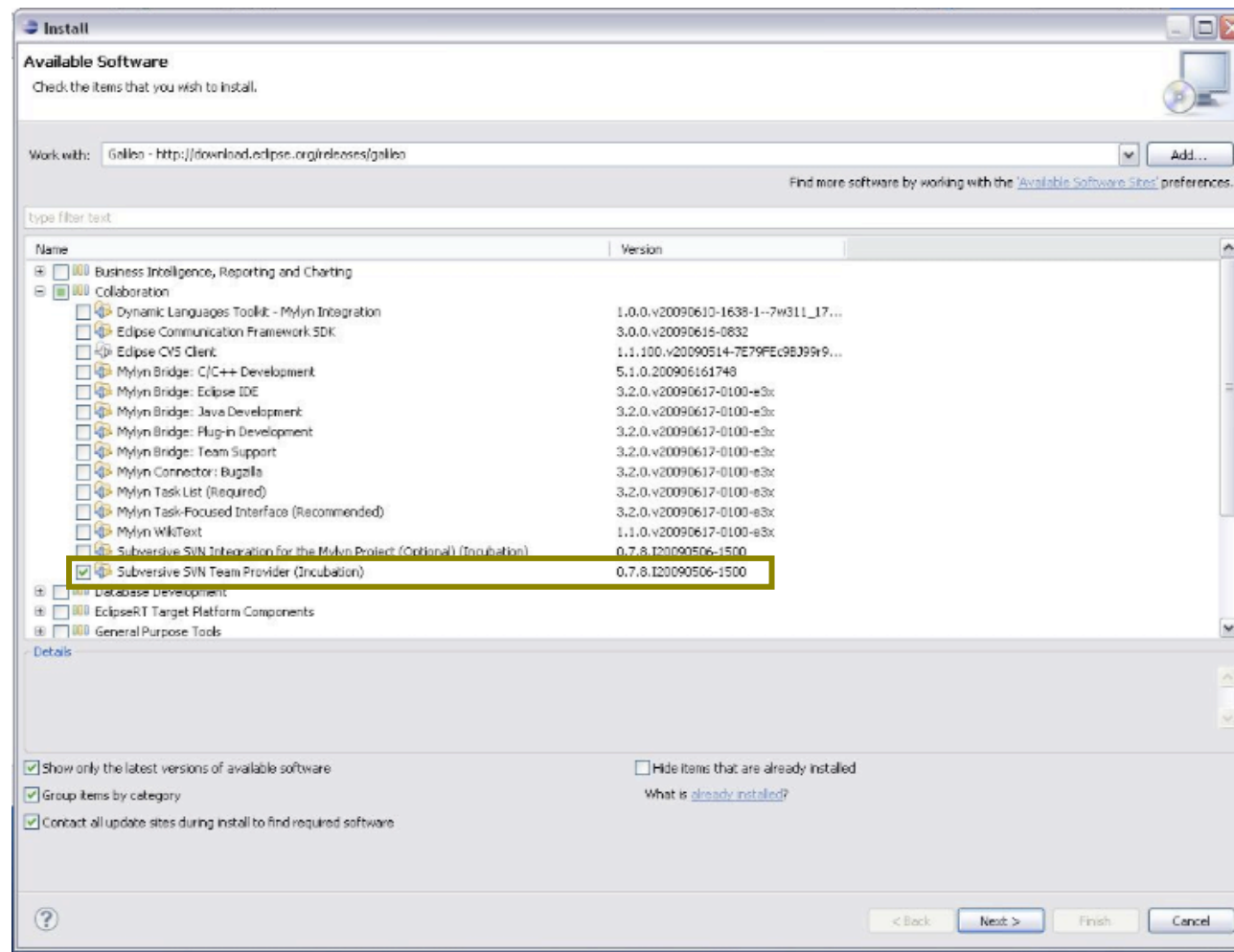
To use SVN in eclipse Galileo

To use SVN in eclipse Galileo: Subversion

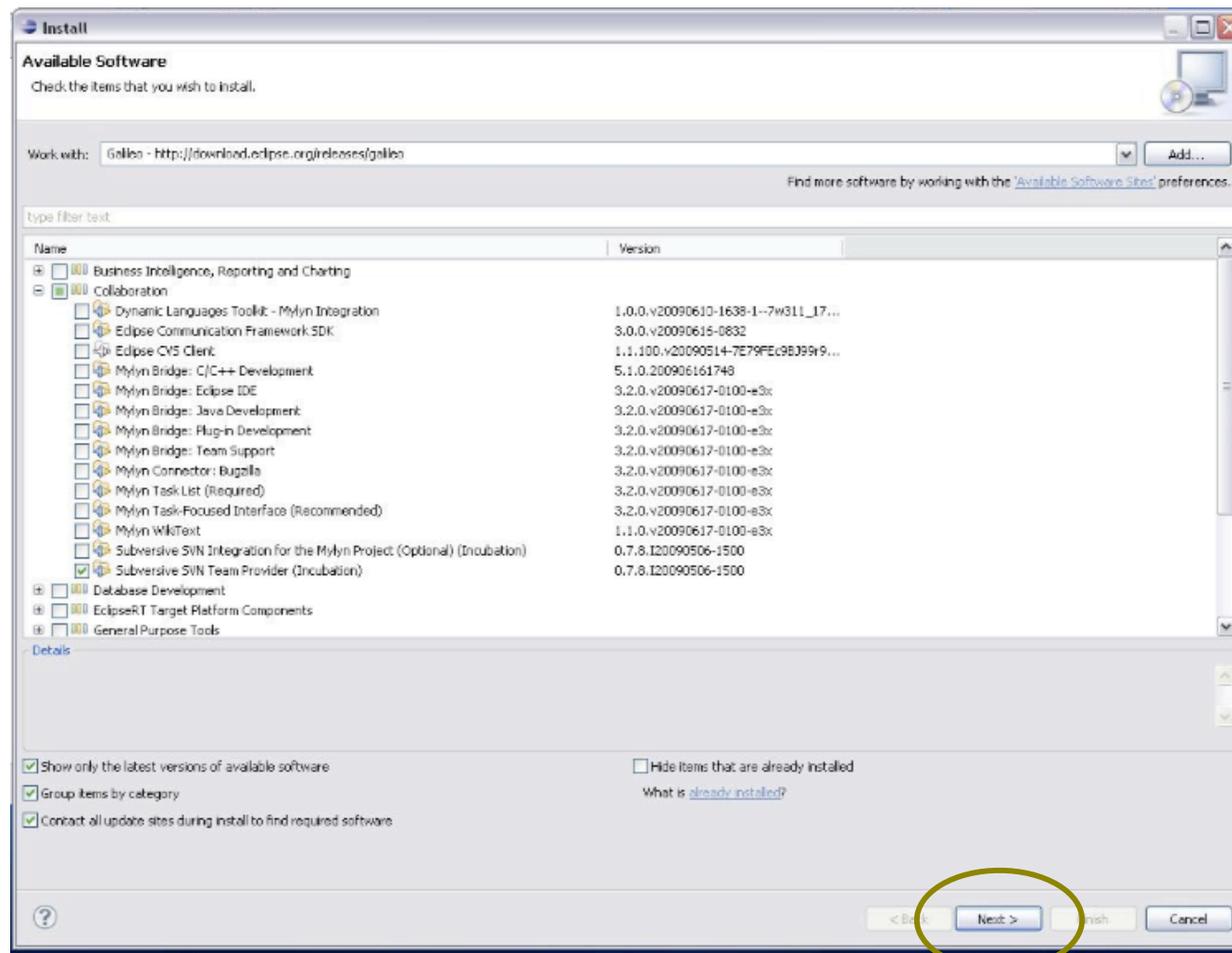
- From Help → Install New Software
- Work with: Galileo - <http://download.eclipse.org/releases/galileo>



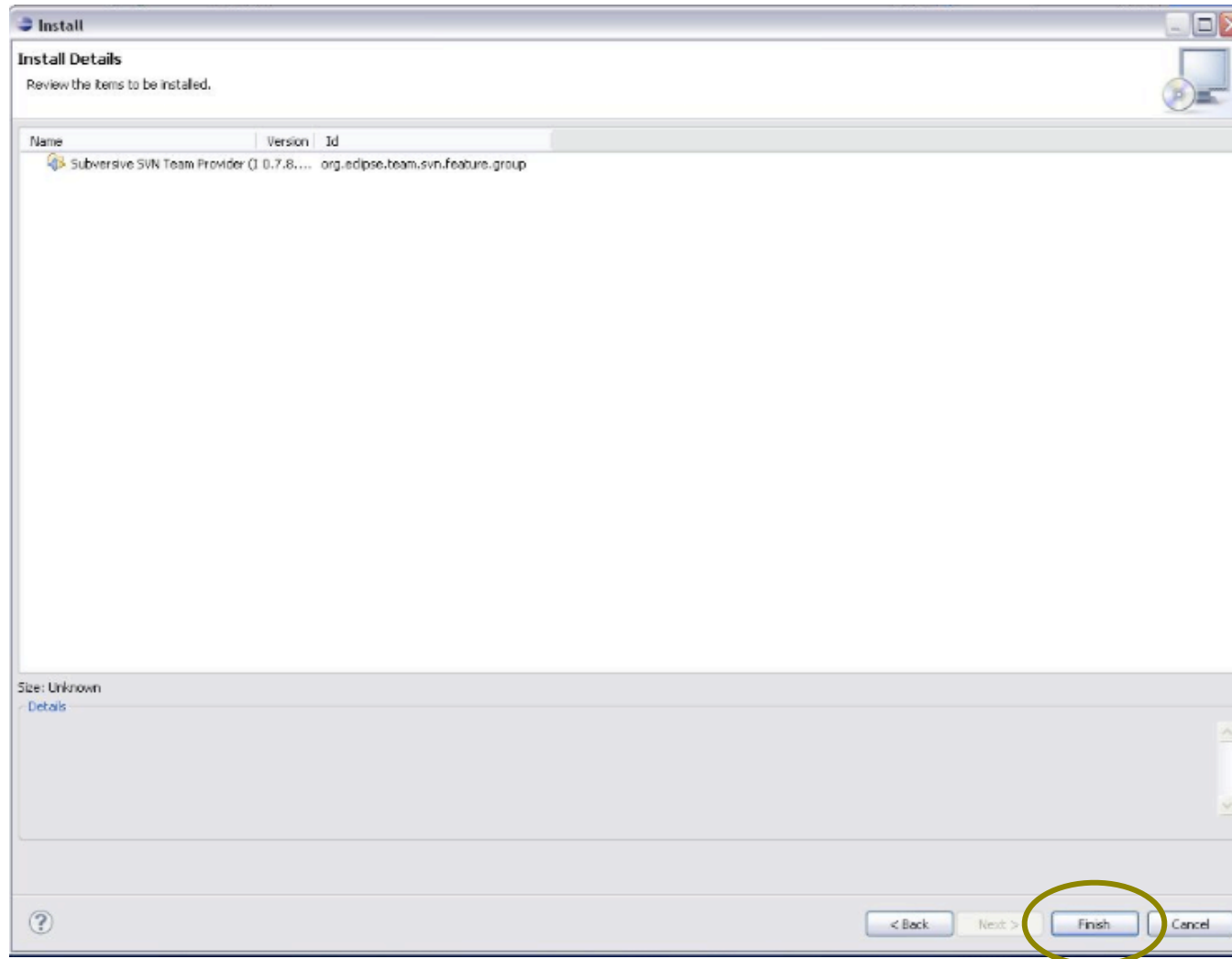
To use SVN in eclipse Galileo: Subversion



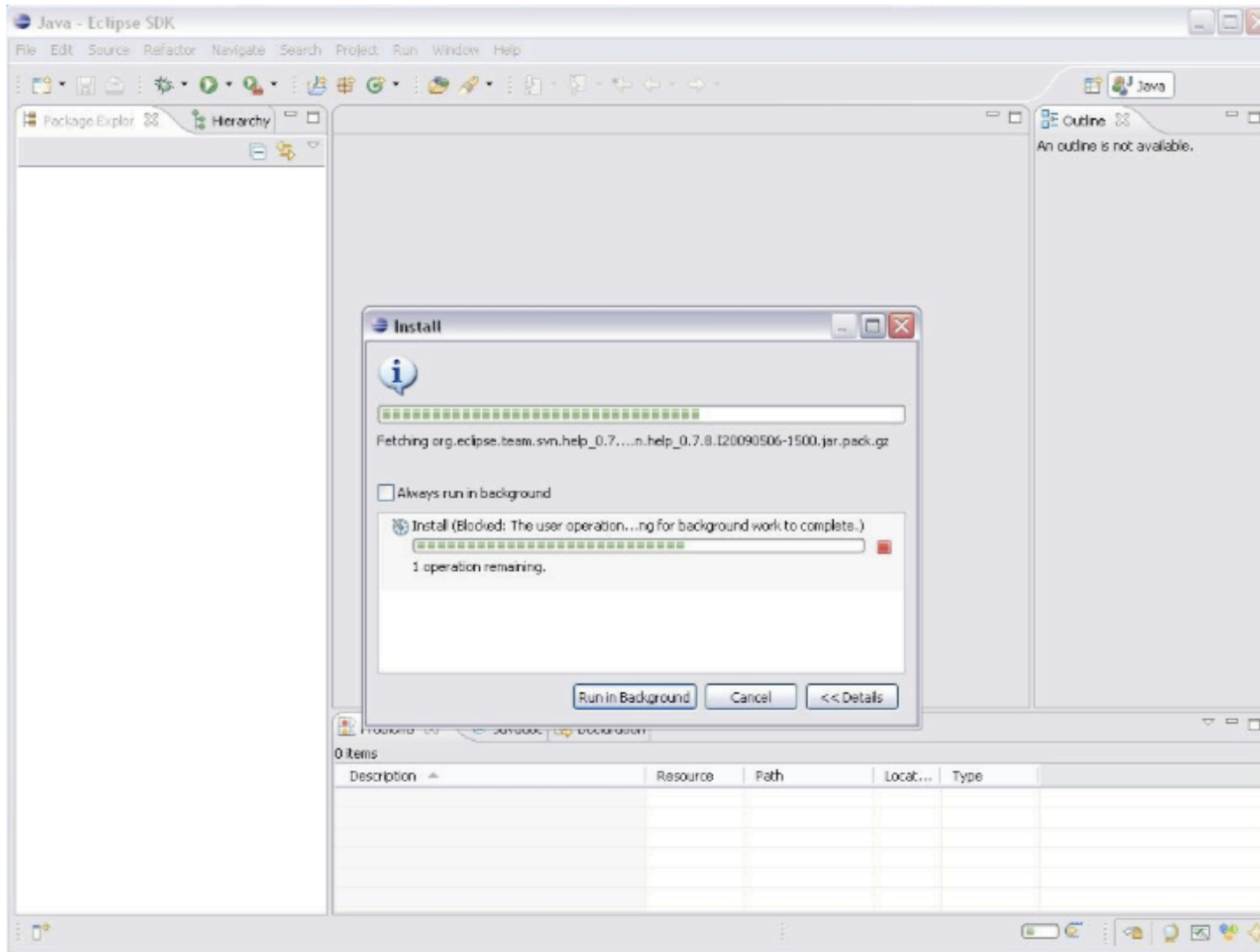
To use SVN in eclipse Galileo: Subversion



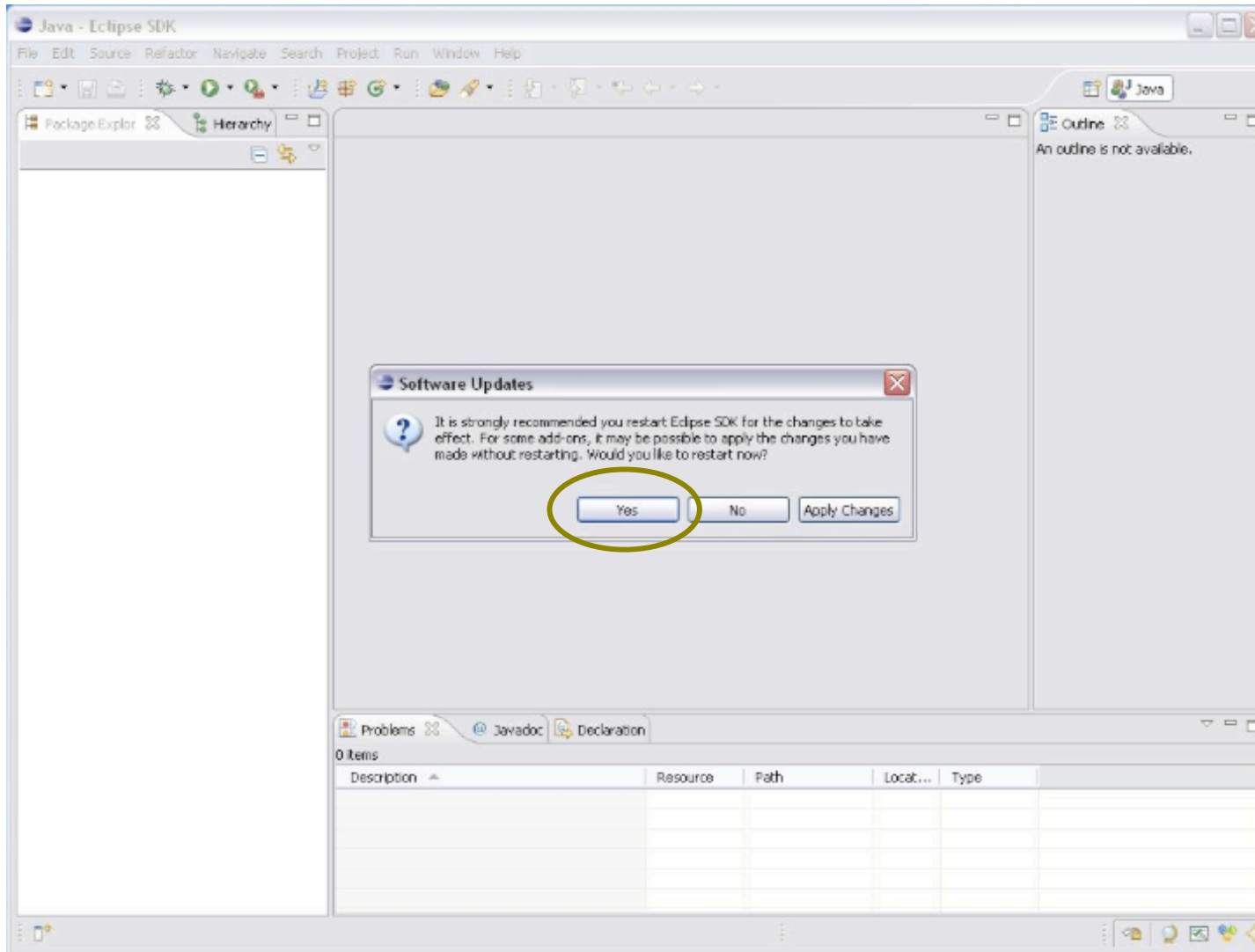
To use SVN in eclipse Galileo: Subversion



To use SVN in eclipse Galileo: Subversion

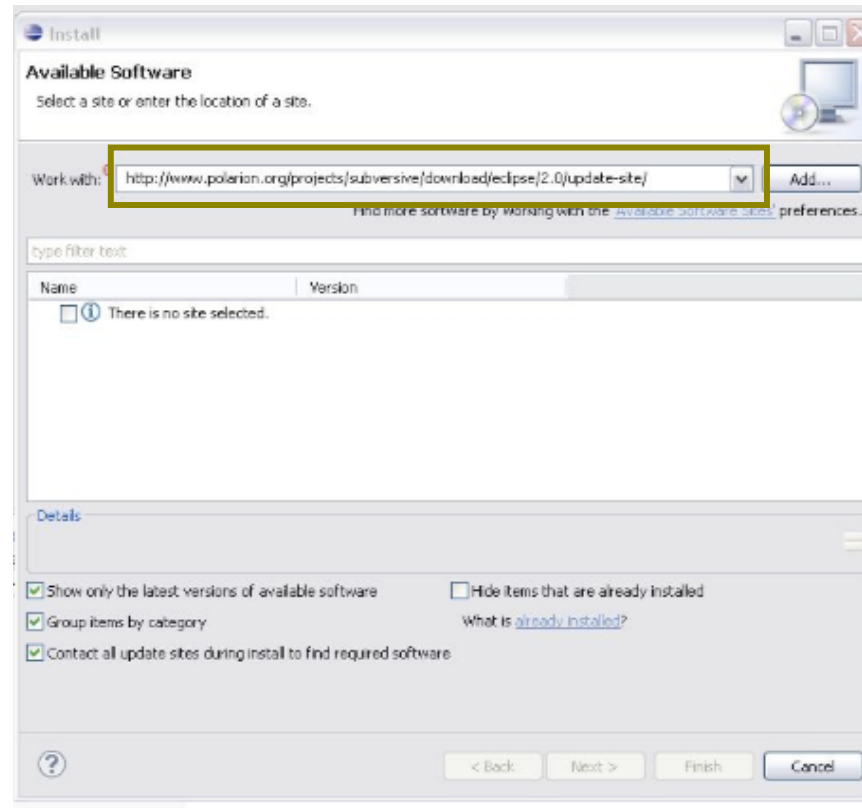


To use SVN in eclipse Galileo: Subversion

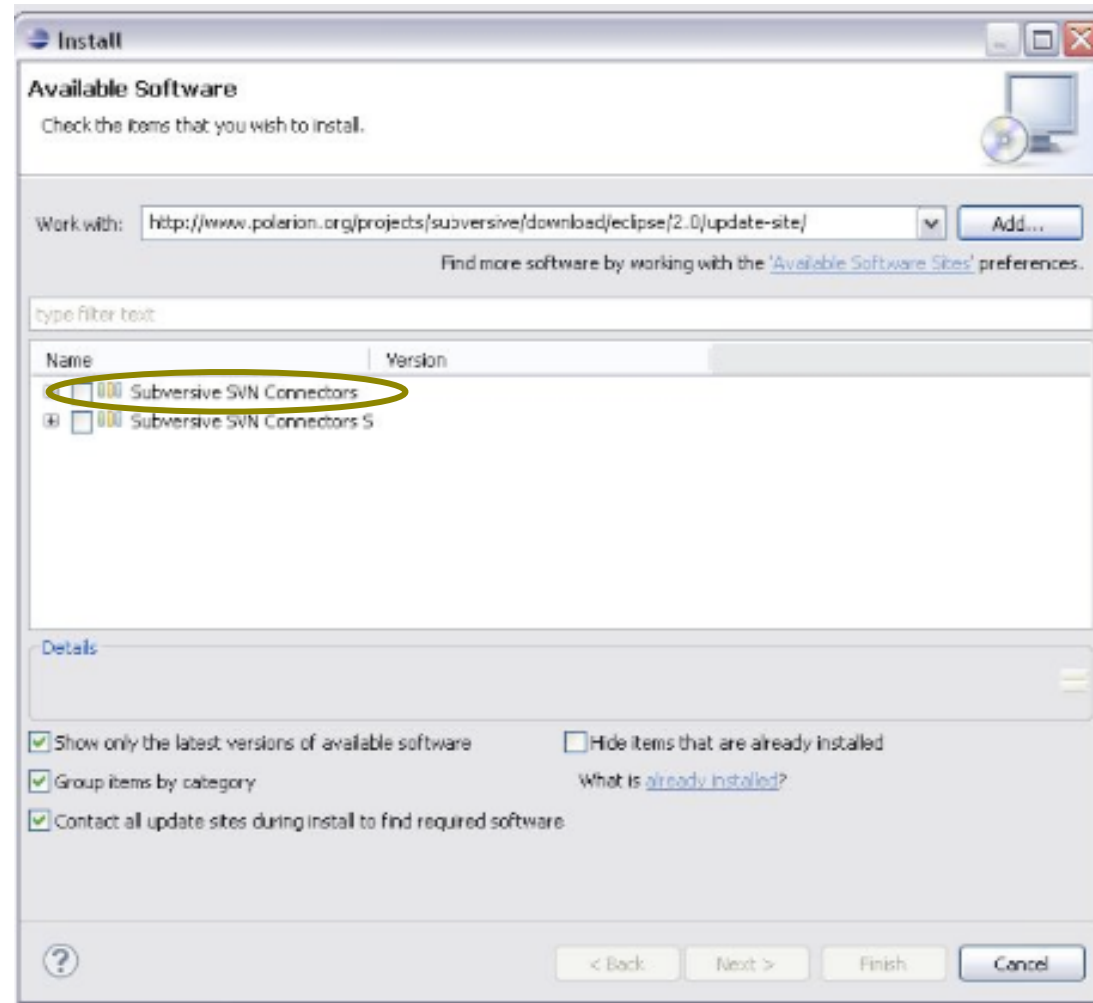


To use SVN in eclipse Galileo: Subversion

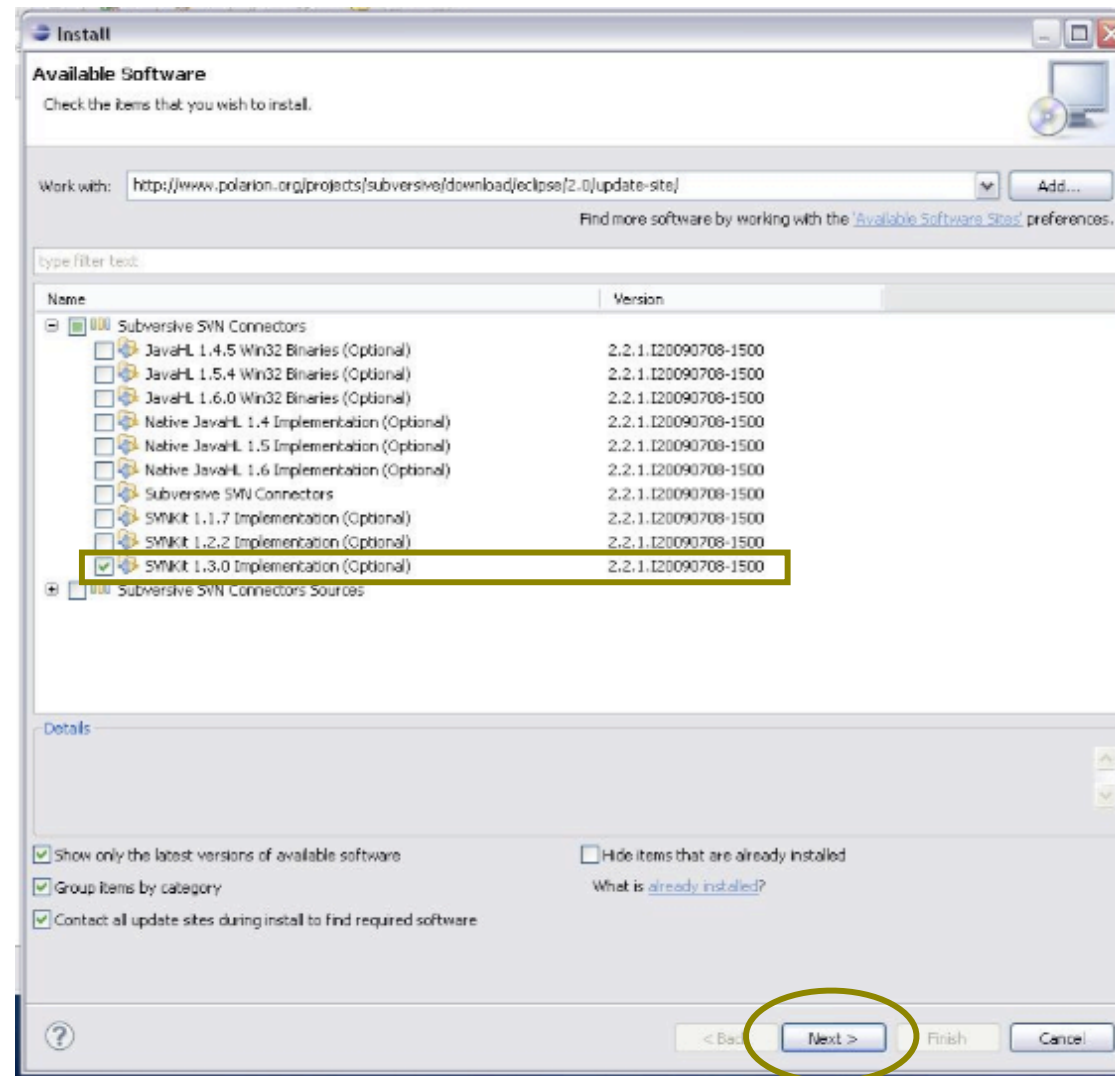
- From Help → Install New Software
- Work with: <http://www.polarion.org/projects/subversive/download/eclipse/2.0/update-site/>
- Click on “add” → enter any name → click on ok.



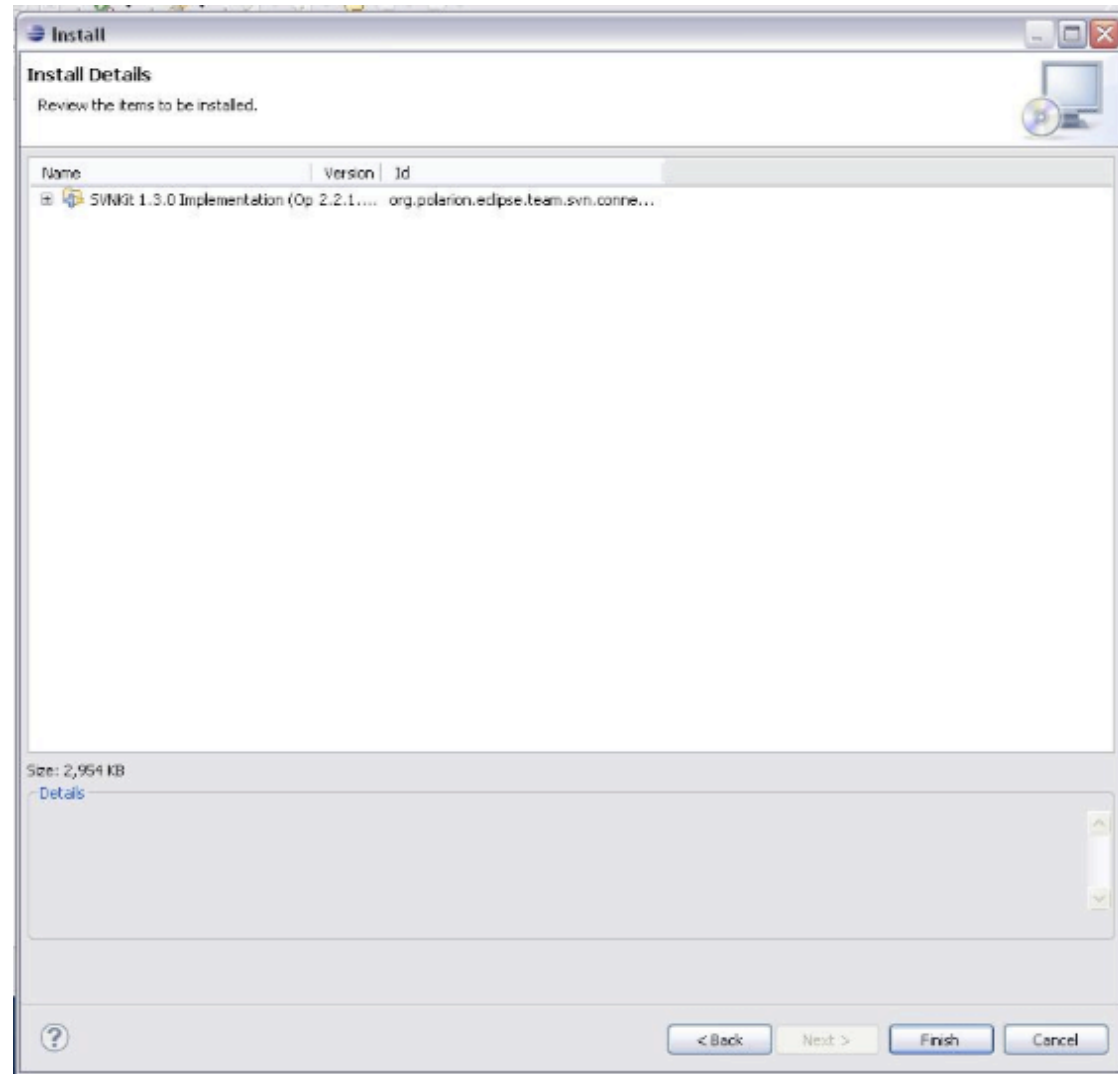
To use SVN in eclipse Galileo: Subversion



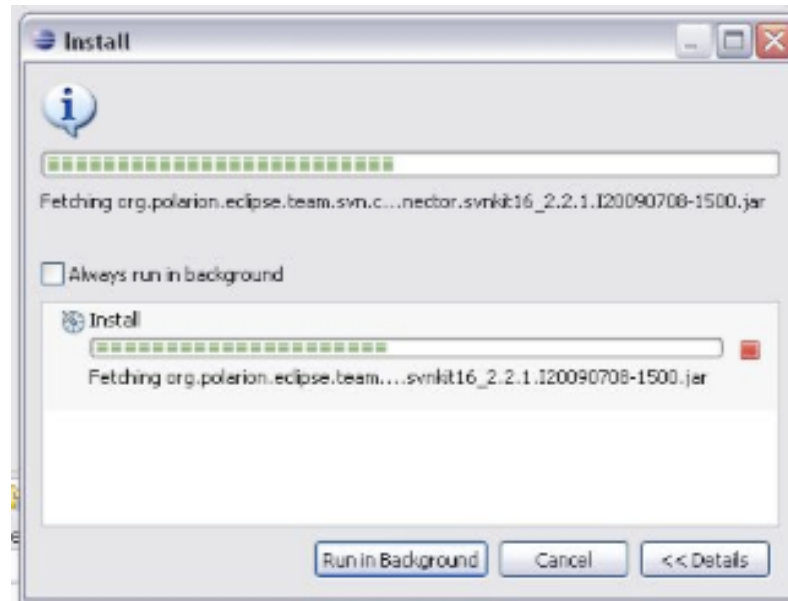
To use SVN in eclipse Galileo: Subversion



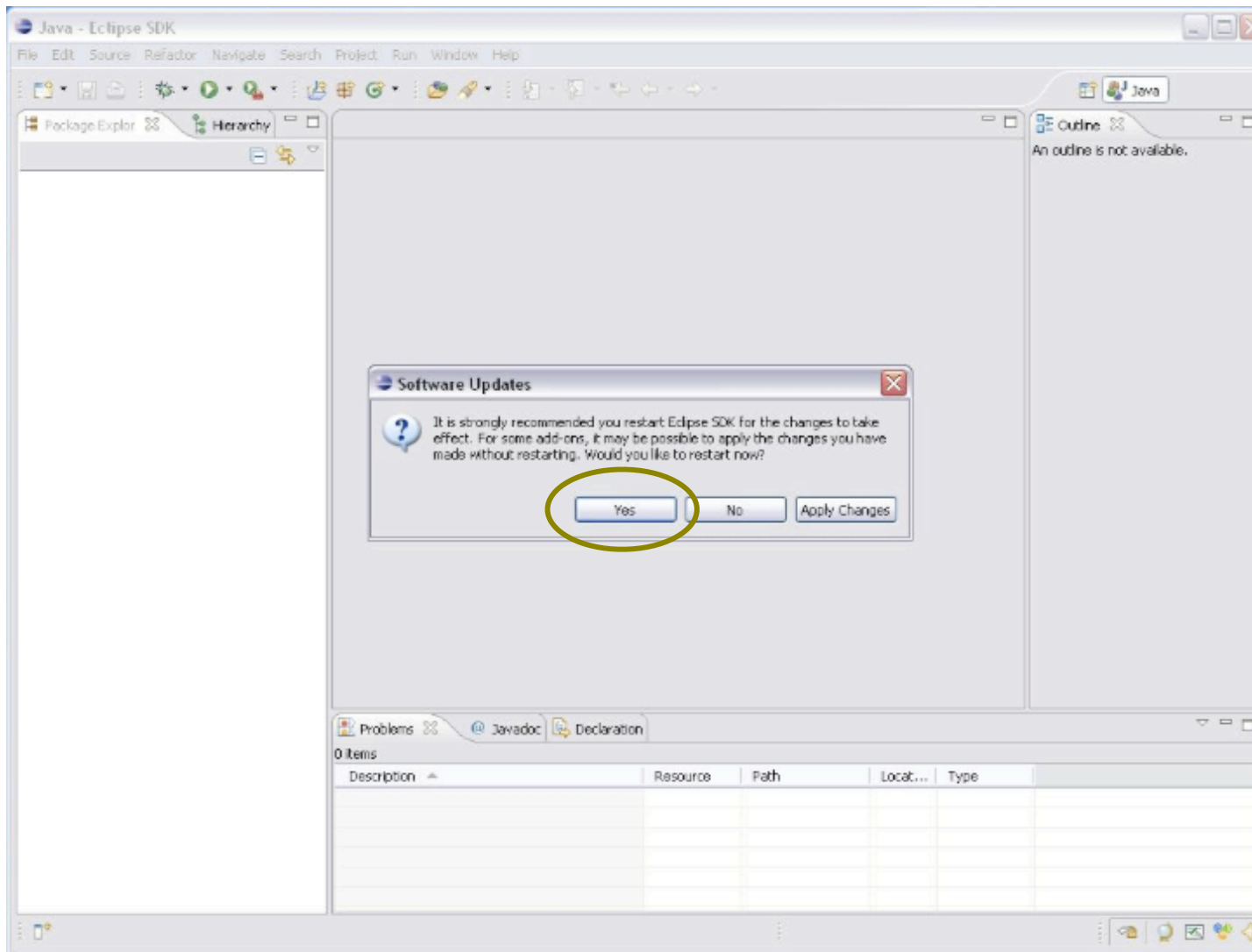
To use SVN in eclipse Galileo: Subversion



To use SVN in eclipse Galileo: Subversion



To use SVN in eclipse Galileo: Subversion



To Install MinGW

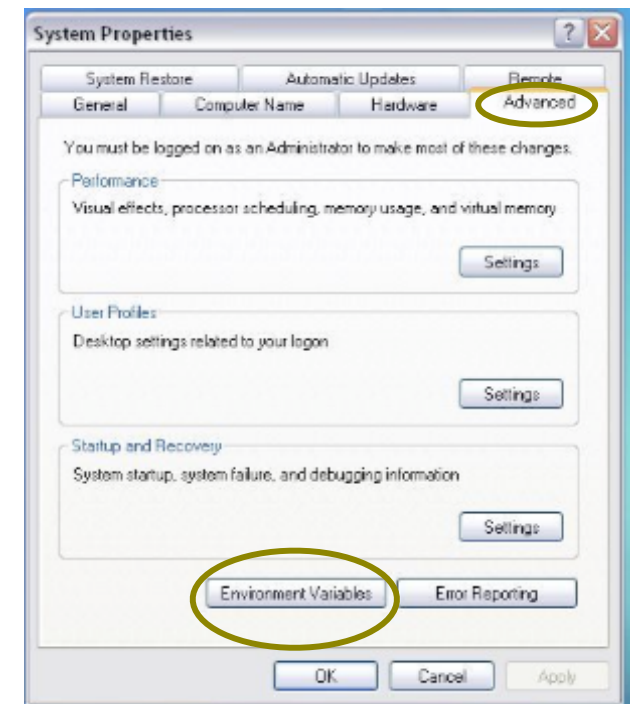
To Install MinGW: “Minimalist GNU for Windows”

- Download MinGW from: <http://www.mingw.org/>

A tested version is available on:

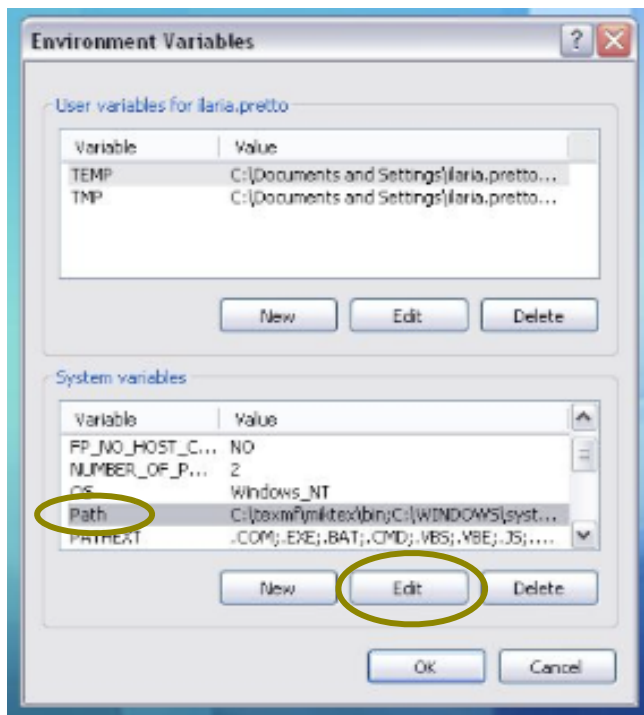
http://www.ing.unitn.it/~cordanoe/geotop_downloads/windows_compilers/

- Execute MinGW.exe;
- Set Environment variable:
 - Right-click on "My Computer" and select "Properties";
 - Advanced -> Environment Variables.



To Install MinGW: “Minimalist GNU for Windows”

- Set Environment variable: - Right-click on "My Computer" and select "Properties";



- Advanced -> Environment Variables;

- Box System Variables -> Select "Path";

- Edit -> add "<path-installation-directory>\bin".

If, during MinGW installation, you accepted the defaults, <path-installation-directory> will be: C:\MinGW\bin.

Don't forget the semicolon;

To Install MinGW: “Minimalist GNU for Windows”

- Set Environment variable: - Right-click on "My Computer" and select "Properties";
 - Advanced -> Environment Variables;



- Box System Variables -> Select “Path”;

- Edit -> add "<path-installation-directory>\bin".

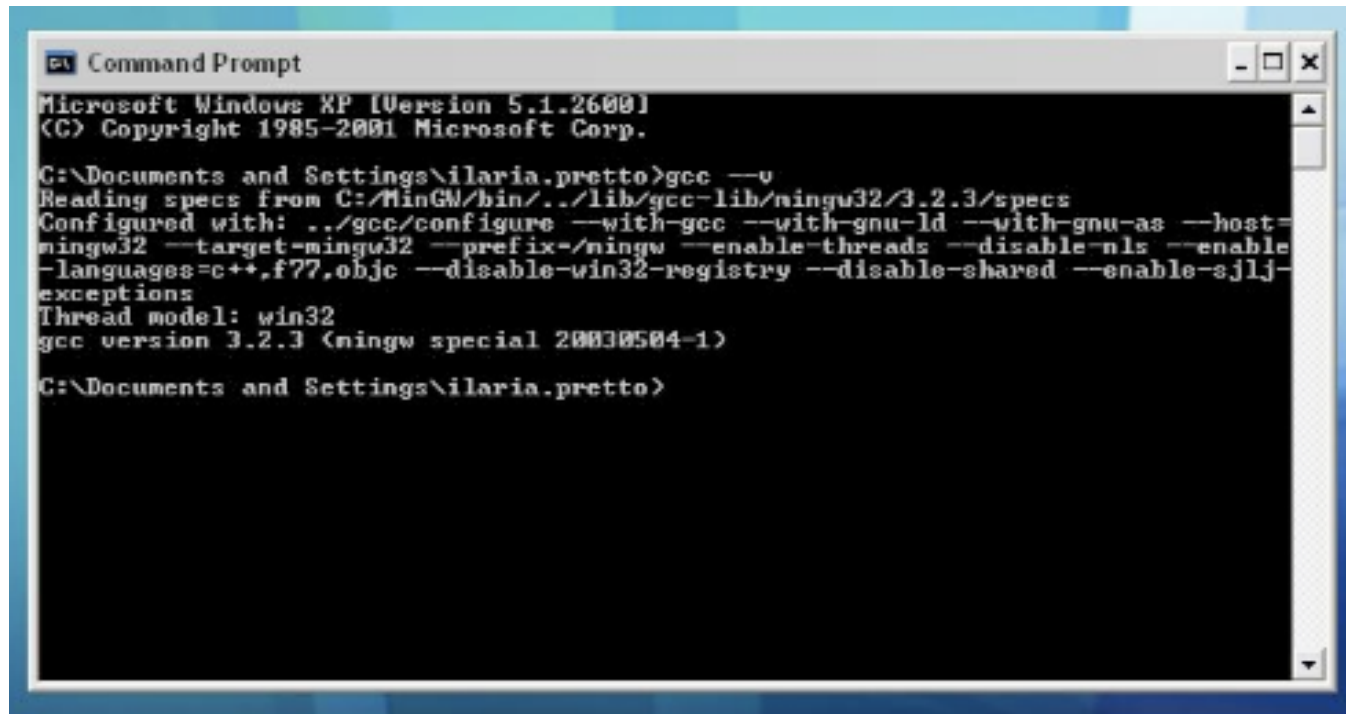
If, during MinGW installation, you accepted the defaults, <path-installation-directory> will be:

;C:\MinGW\bin;

Don't forget the semicolon.

To Install MinGW: “Minimalist GNU for Windows”

- To test that MinGW really work open command prompt and to write: `gcc --v`
- You have to obtain:



```
Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\ilaria.pretto>gcc --v
Reading specs from C:/MinGW/bin/./lib/gcc-lib/mingw32/3.2.3/specs
Configured with: ../gcc/configure --with-gcc --with-gnu-ld --with-gnu-as --host=
mingw32 --target=mingw32 --prefix=/mingw --enable-threads --disable-nls --enable
-languages=c++,f77,objc --disable-win32-registry --disable-shared --enable-sjlj-
exceptions
Thread model: win32
gcc version 3.2.3 (mingw special 20030504-1)

C:\Documents and Settings\ilaria.pretto>
```


To install MSYS

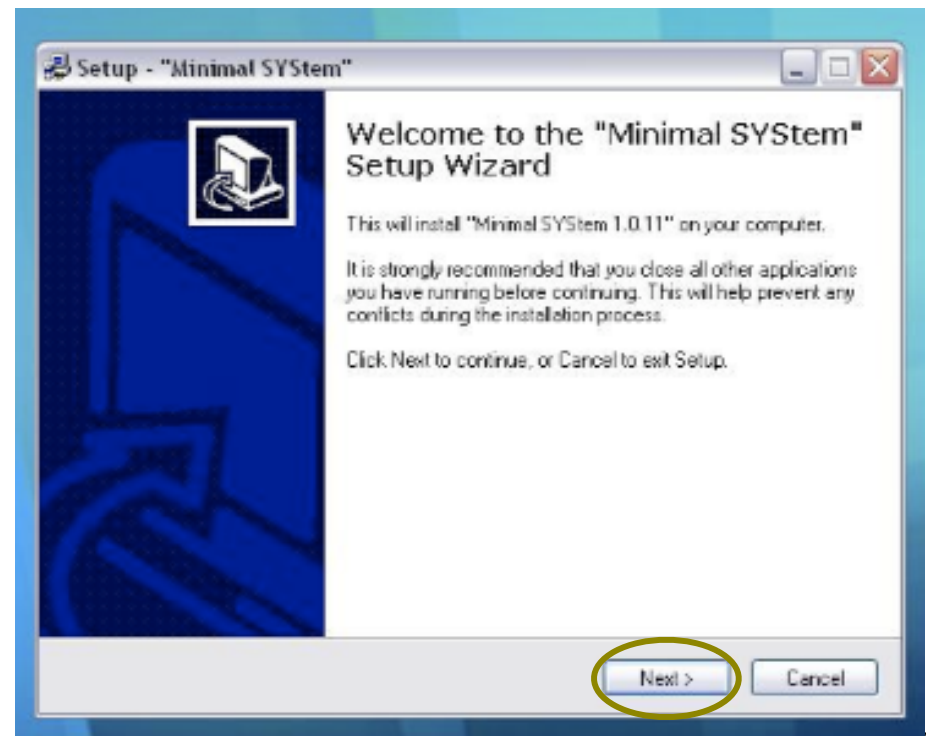
To install MSYS, "Minimal SYStem":

- After install MInGW, download MSYS from: <http://www.mingw.org/wiki/msys>;

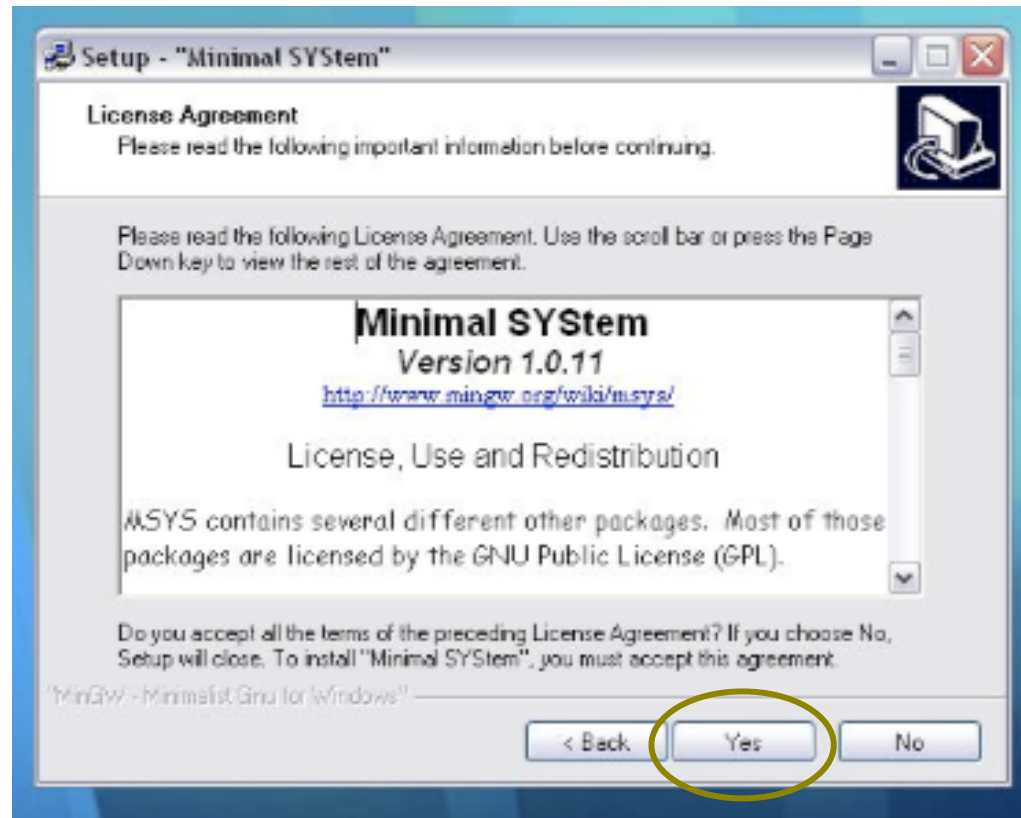
A tested version is available on:

http://www.ing.unitn.it/~cordano/geotop_downloads/windows_compilers/

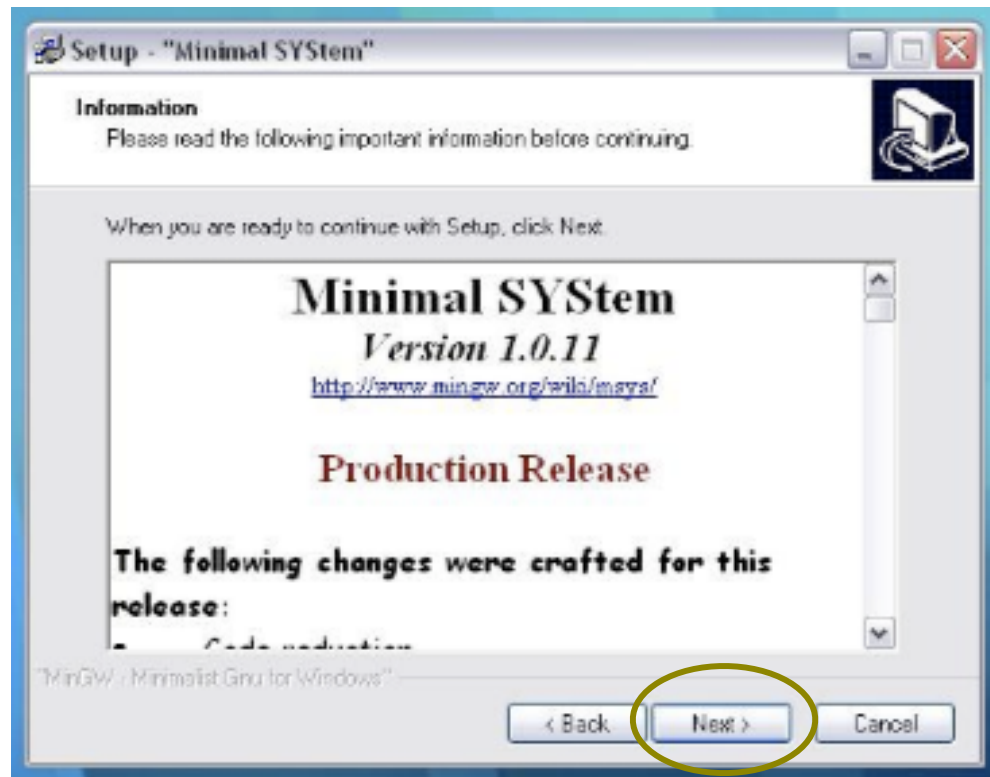
- Execute MSYS.exe:



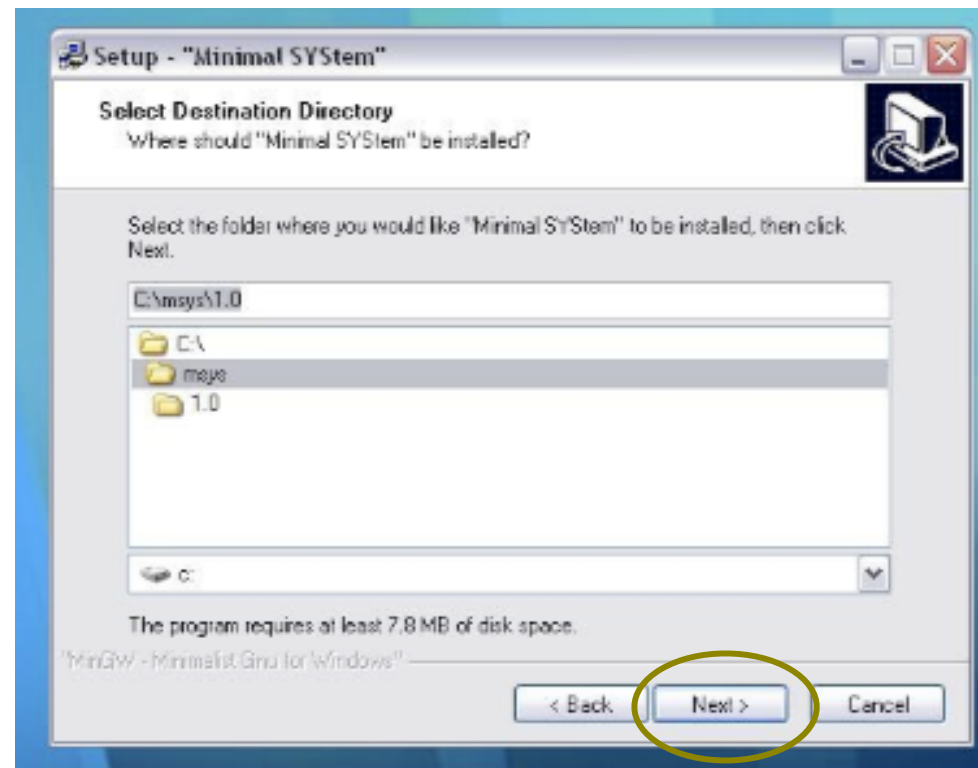
To install MSYS, “Minimal SYStem”:



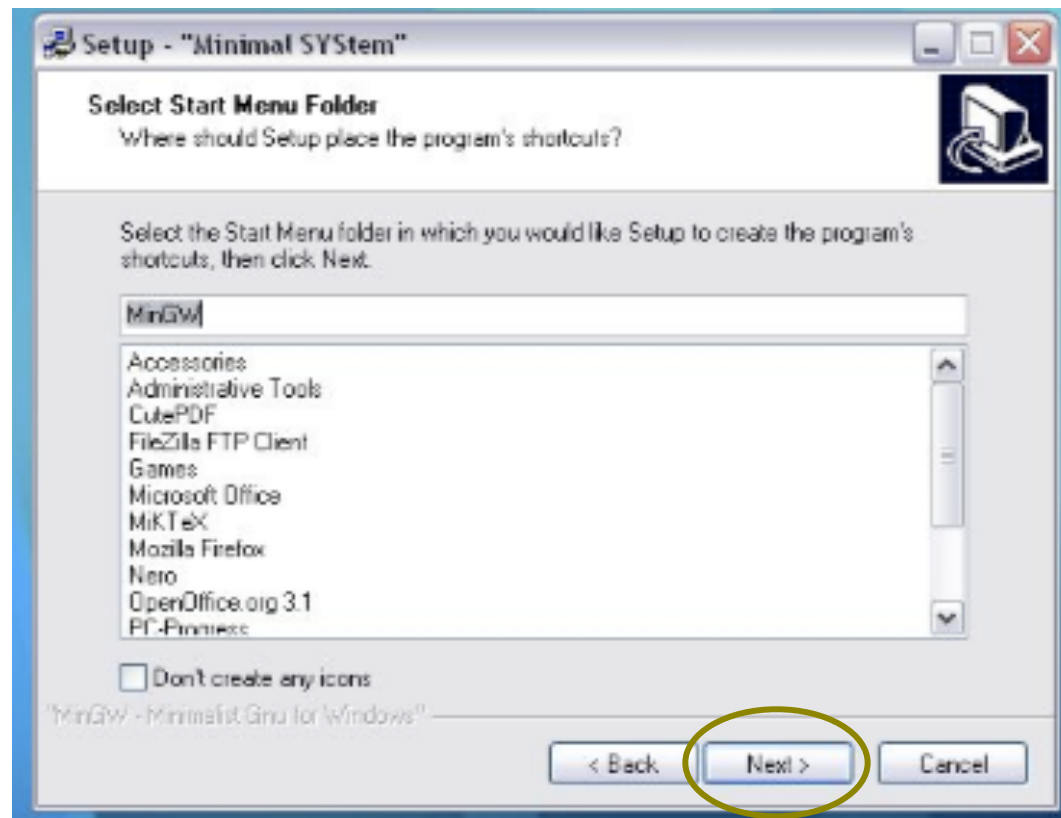
To install MSYS, “Minimal SYStem”:



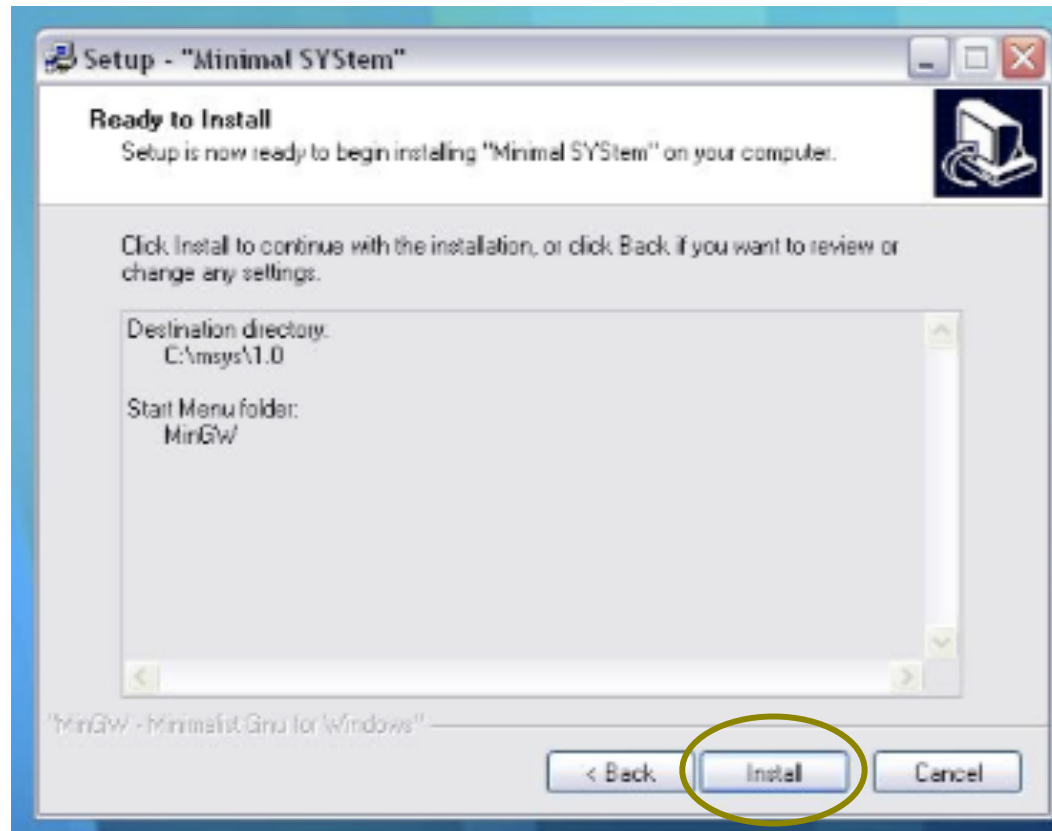
To install MSYS, “Minimal SYStem”:



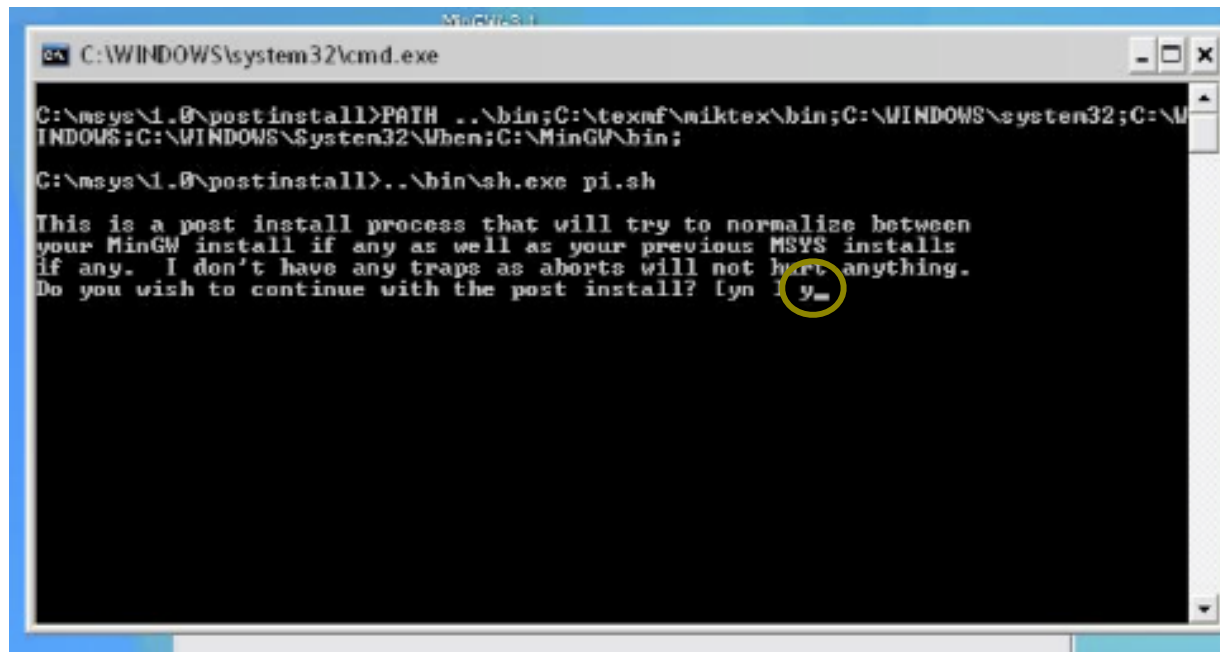
To install MSYS, “Minimal SYStem”:



To install MSYS, “Minimal SYStem”:



To install MSYS, “Minimal SYStem”:



A screenshot of a Windows command prompt window titled "C:\WINDOWS\system32\cmd.exe". The window shows the following text:

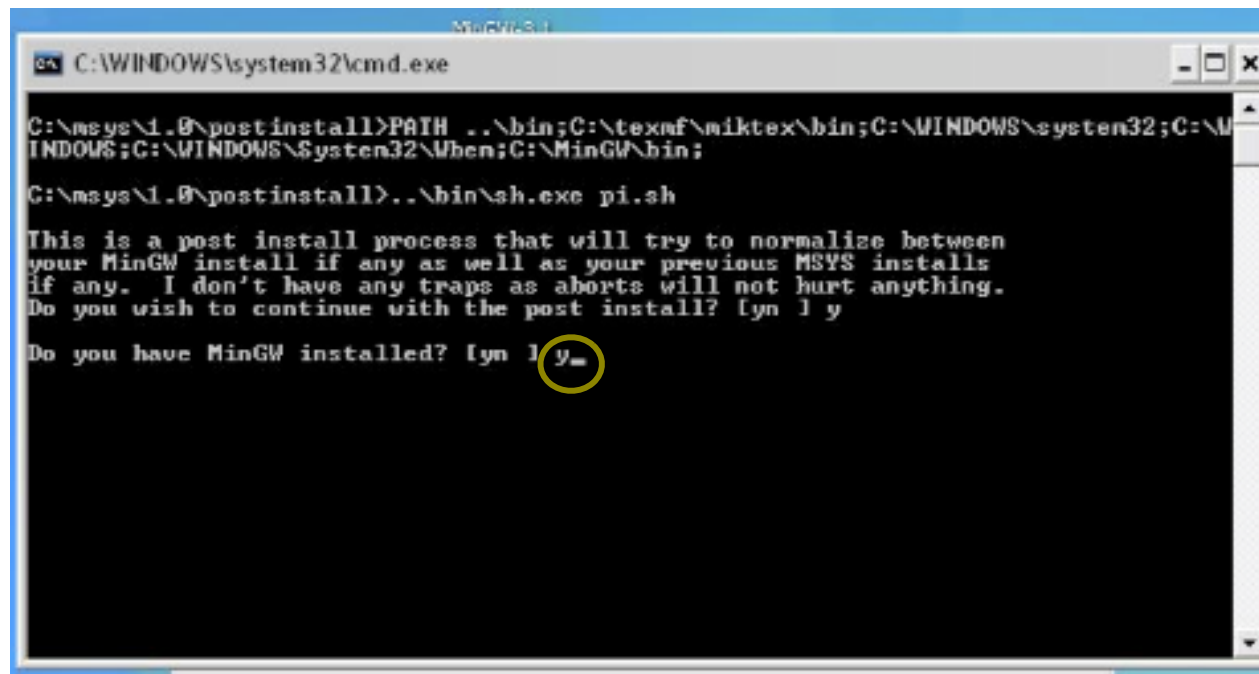
```
C:\msys\1.0\postinstall>PATH ..\bin;C:\texmf\miktex\bin;C:\WINDOWS\system32;C:\M
INDOWS;C:\WINDOWS\System32\Wbem;C:\MinGW\bin;

C:\msys\1.0\postinstall>..\bin\sh.exe pi.sh

This is a post install process that will try to normalize between
your MinGW install if any as well as your previous MSYS installs
if any. I don't have any traps as aborts will not hurt anything.
Do you wish to continue with the post install? [yn] y_
```

The character 'y' in the prompt is circled in yellow.

To install MSYS, “Minimal SYStem”:



```
C:\WINDOWS\system32\cmd.exe

C:\msys\1.0\postinstall>PATH ..\bin;C:\texmf\miktex\bin;C:\WINDOWS\system32;C:\W
INDOWS;C:\WINDOWS\System32\Wbem;C:\MinGW\bin;

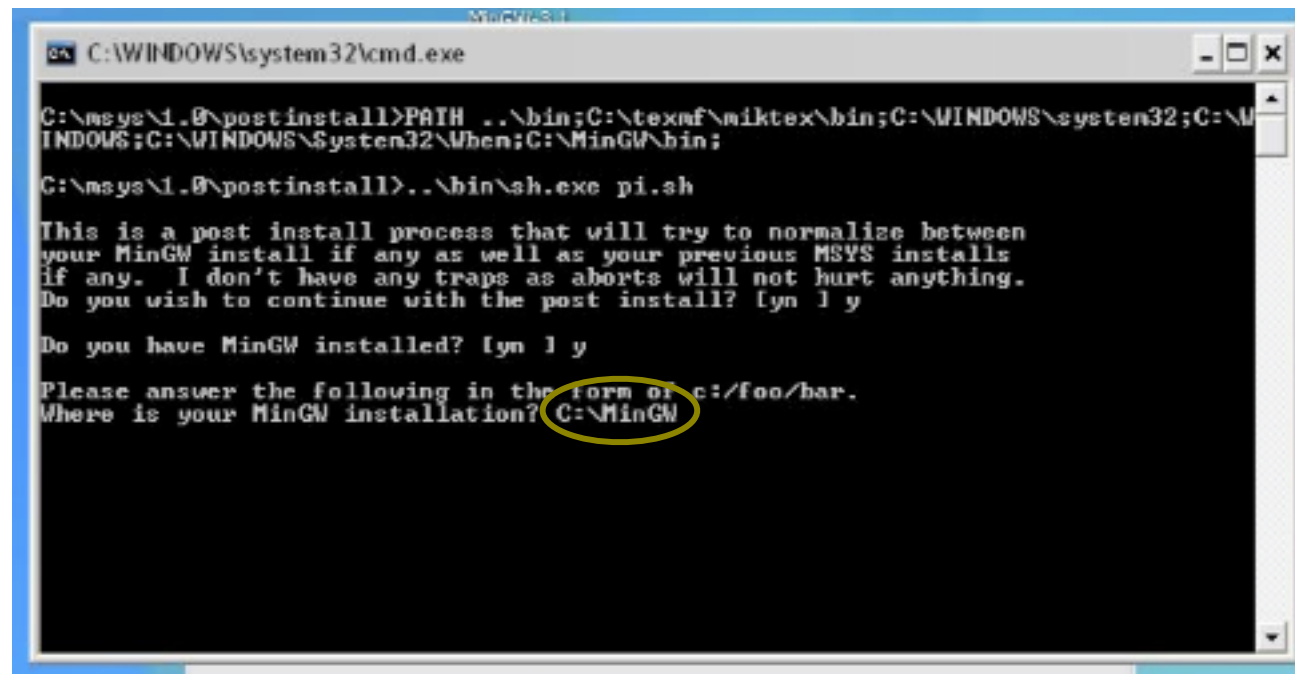
C:\msys\1.0\postinstall>..\bin\sh.exe pi.sh

This is a post install process that will try to normalize between
your MinGW install if any as well as your previous MSYS installs
if any. I don't have any traps as aborts will not hurt anything.
Do you wish to continue with the post install? [yn] y

Do you have MinGW installed? [yn] y_
```

To install MSYS, “Minimal SYStem”:

Now it will ask for the directory where MinGW was installed to



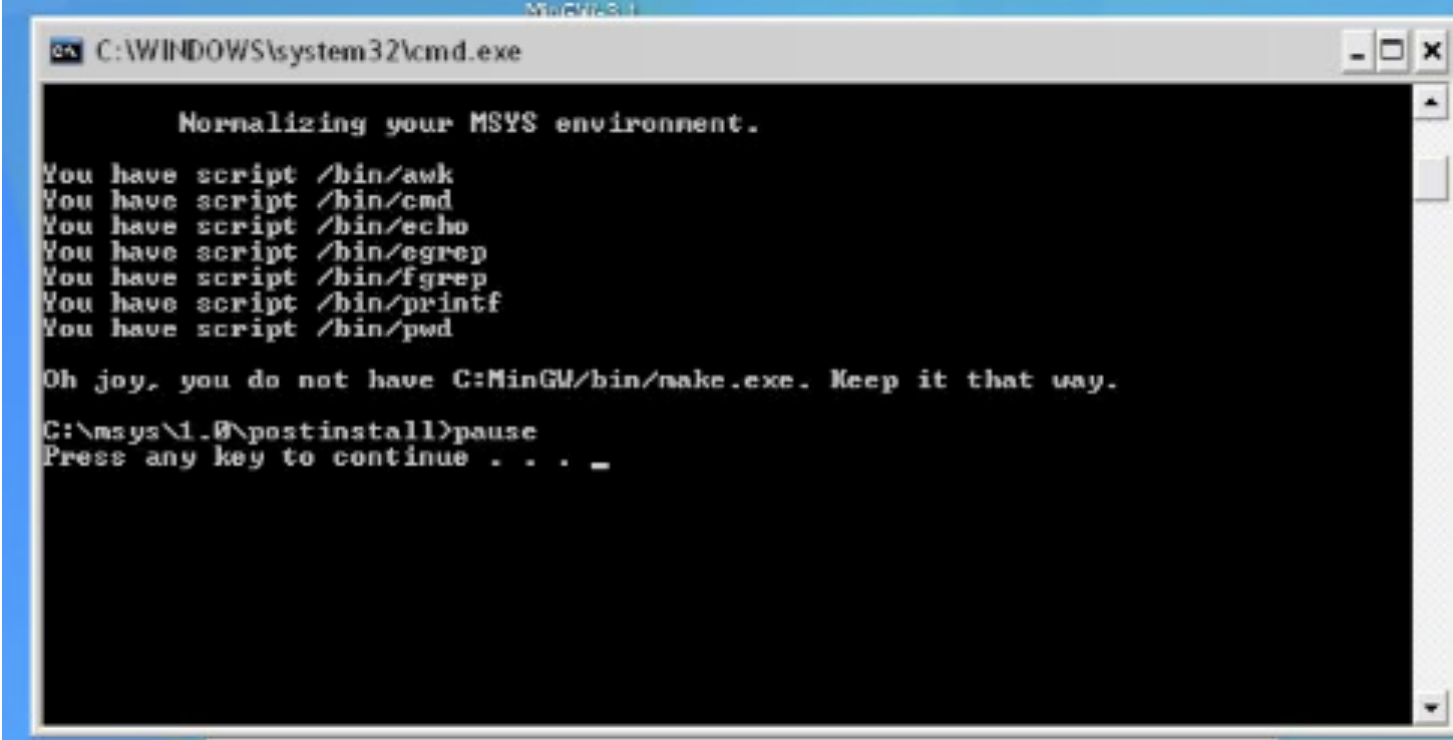
```
C:\WINDOWS\system32\cmd.exe
C:\msys\1.0\postinstall>PATH ..\bin;C:\texmf\miktex\bin;C:\WINDOWS\system32;C:\W
INDOWS;C:\WINDOWS\System32\Wbem;C:\MinGW\bin;
C:\msys\1.0\postinstall>..\bin\sh.exe pi.sh

This is a post install process that will try to normalize between
your MinGW install if any as well as your previous MSYS installs
if any. I don't have any traps as aborts will not hurt anything.
Do you wish to continue with the post install? [yn] y

Do you have MinGW installed? [yn] y

Please answer the following in the form of c:/foo/bar.
Where is your MinGW installation? C:\MinGW
```

To install MSYS, “Minimal SYStem”:



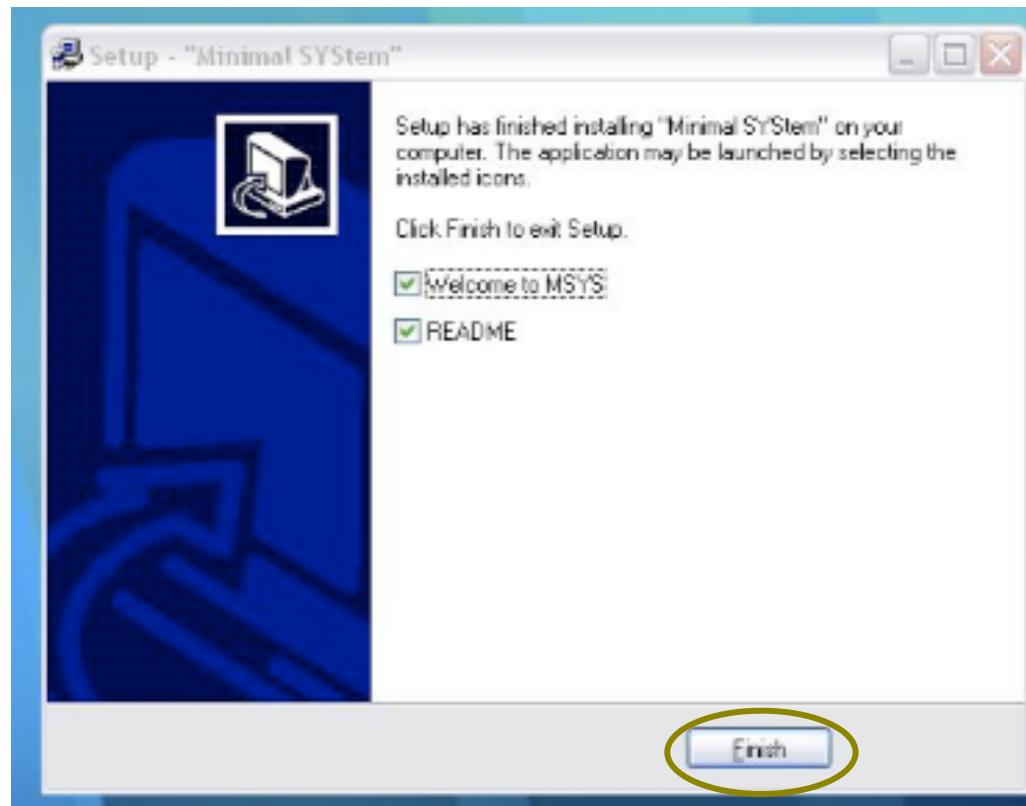
```
C:\WINDOWS\system32\cmd.exe

Normalizing your MSYS environment.
You have script /bin/awk
You have script /bin/cmd
You have script /bin/echo
You have script /bin/egrep
You have script /bin/fgrep
You have script /bin/printf
You have script /bin/pwd

Oh joy, you do not have C:\MinGW\bin\nake.exe. Keep it that way.

C:\msys\1.0\postinstall>pause
Press any key to continue . . . _
```

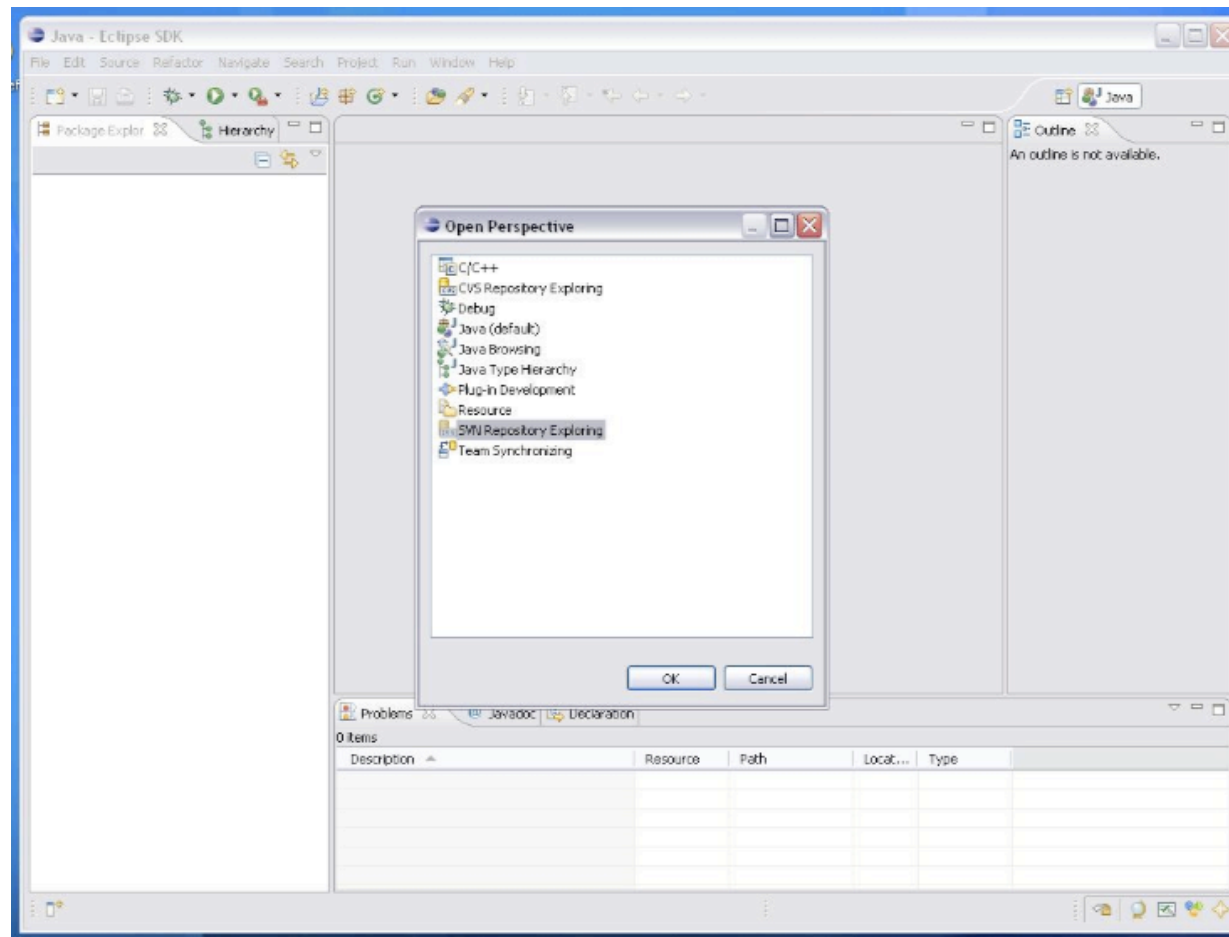
To install MSYS, “Minimal SYStem”:



Download from SVN GEOTop code

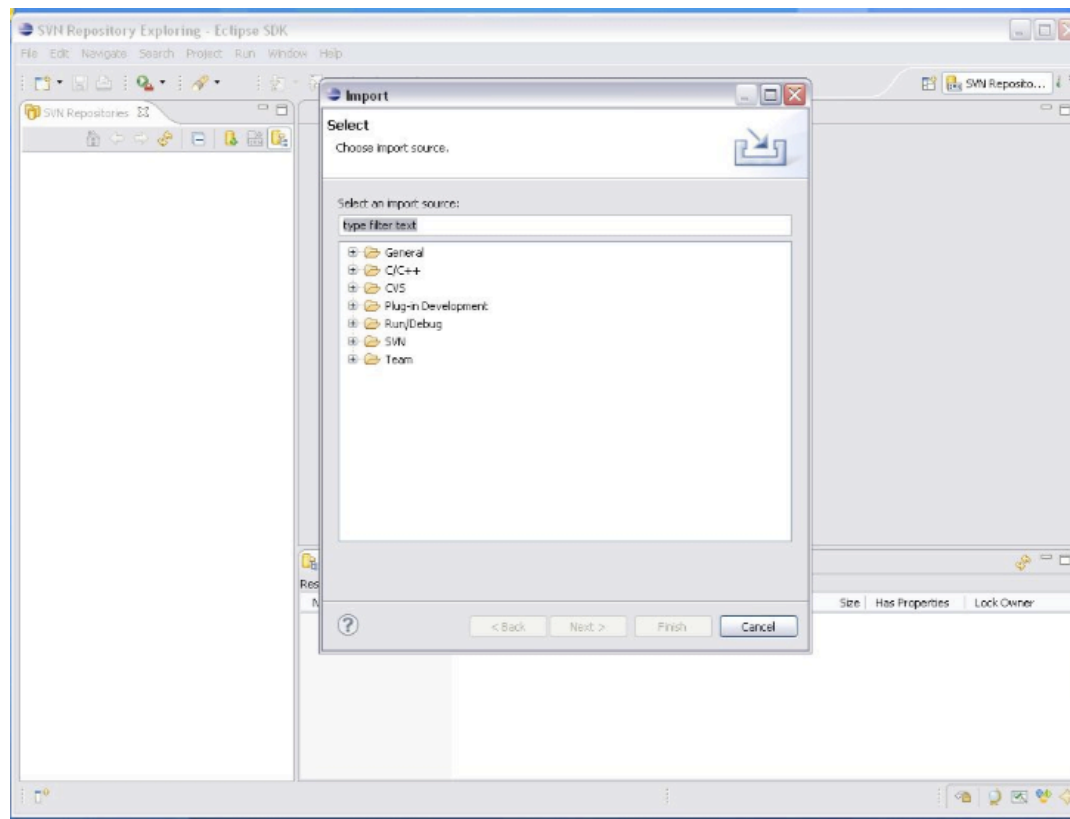
Download from SVN GEOTop code: Set prospective

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

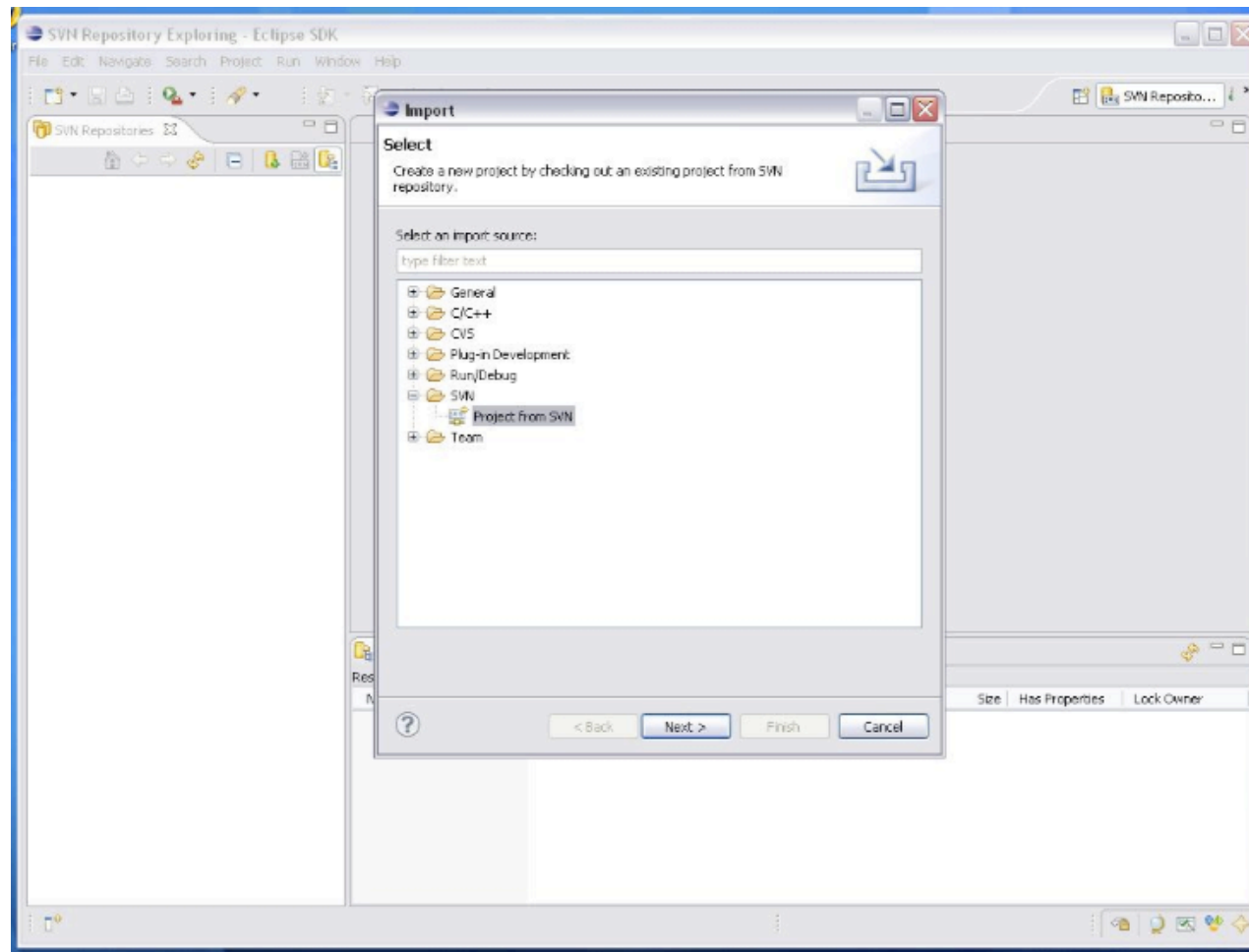


Download from SVN GEOTop code

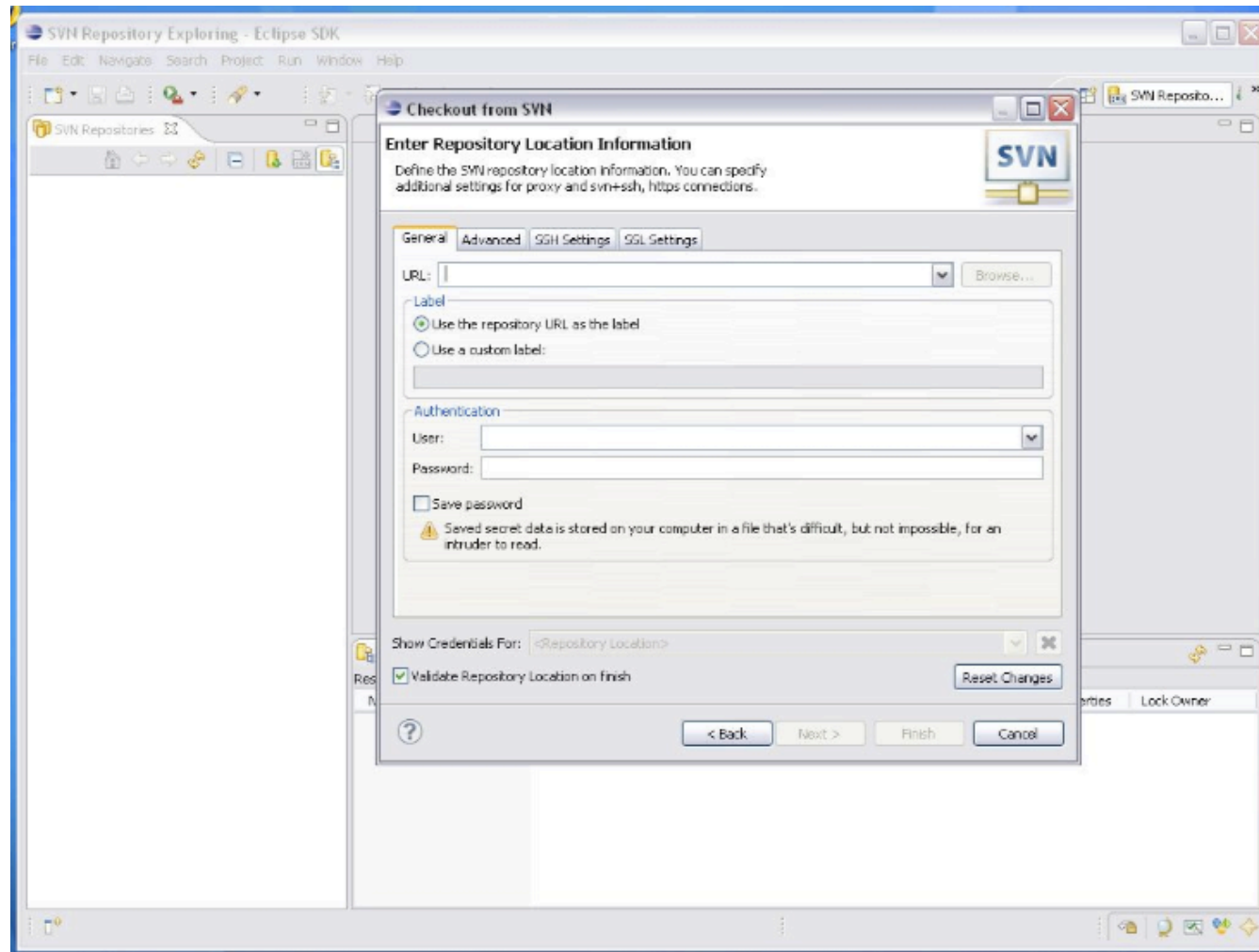
- In eclipse, from File → Import



Download from SVN GEOTop code

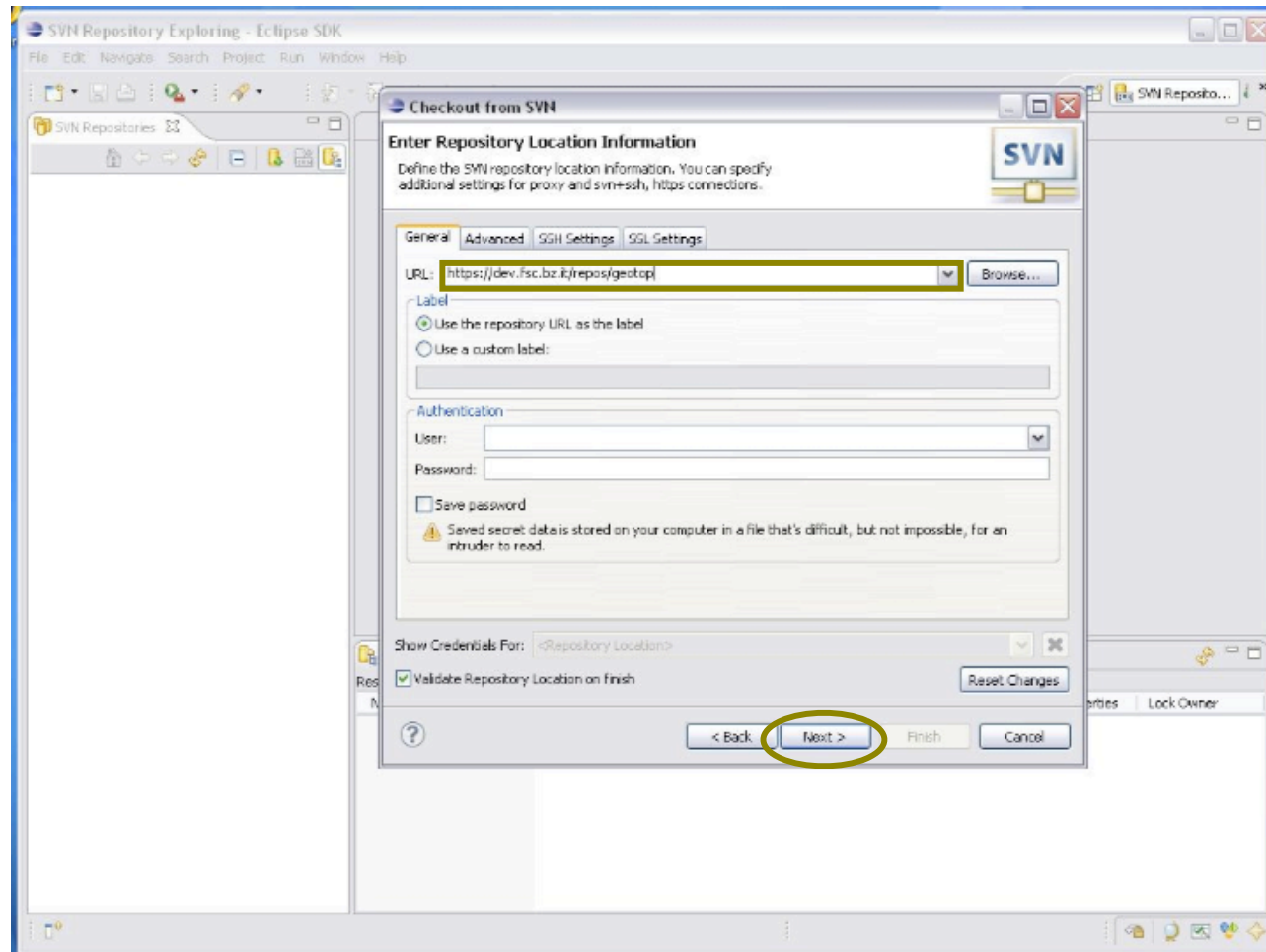


Download from SVN GEOTop code



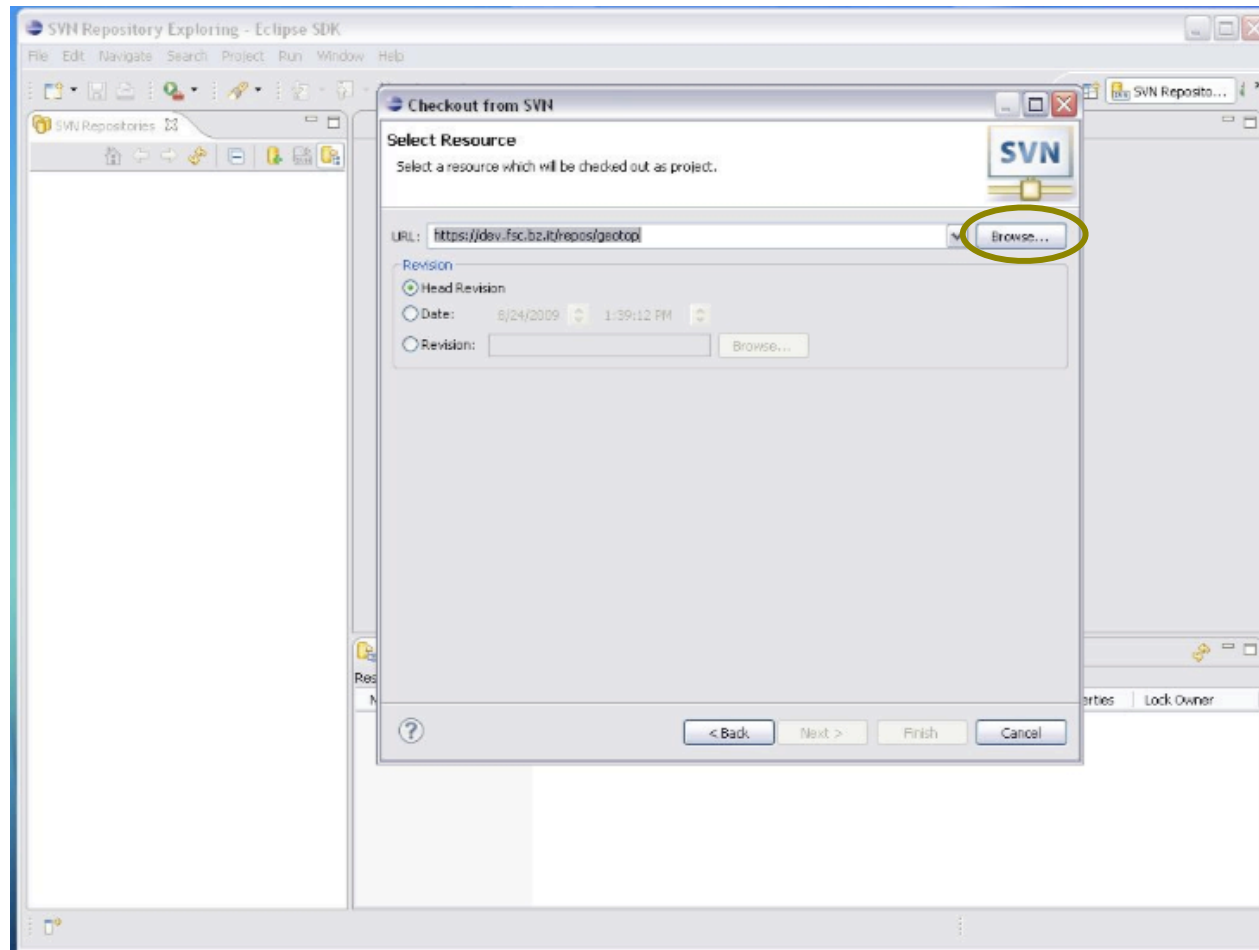
Download from SVN GEOTop code

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



Download from SVN GEOTop code

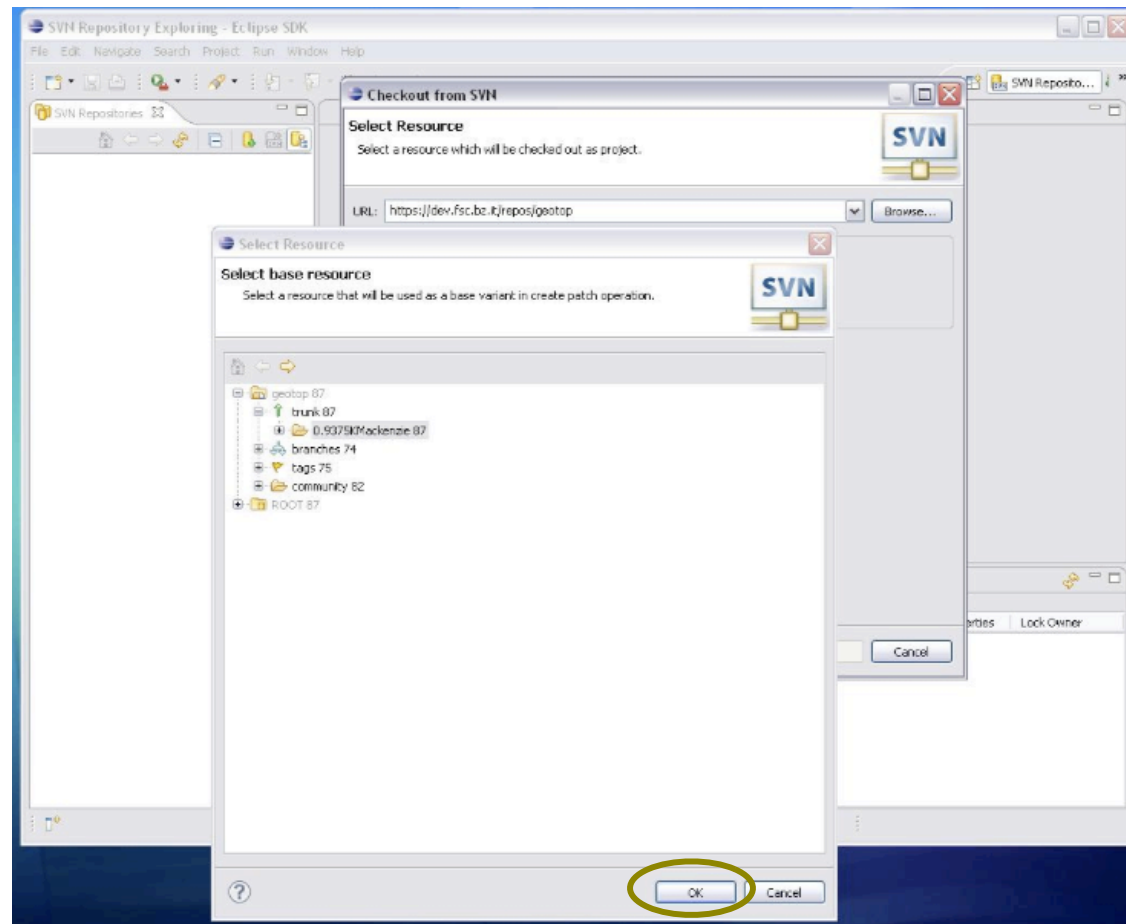
- Click on Browse...



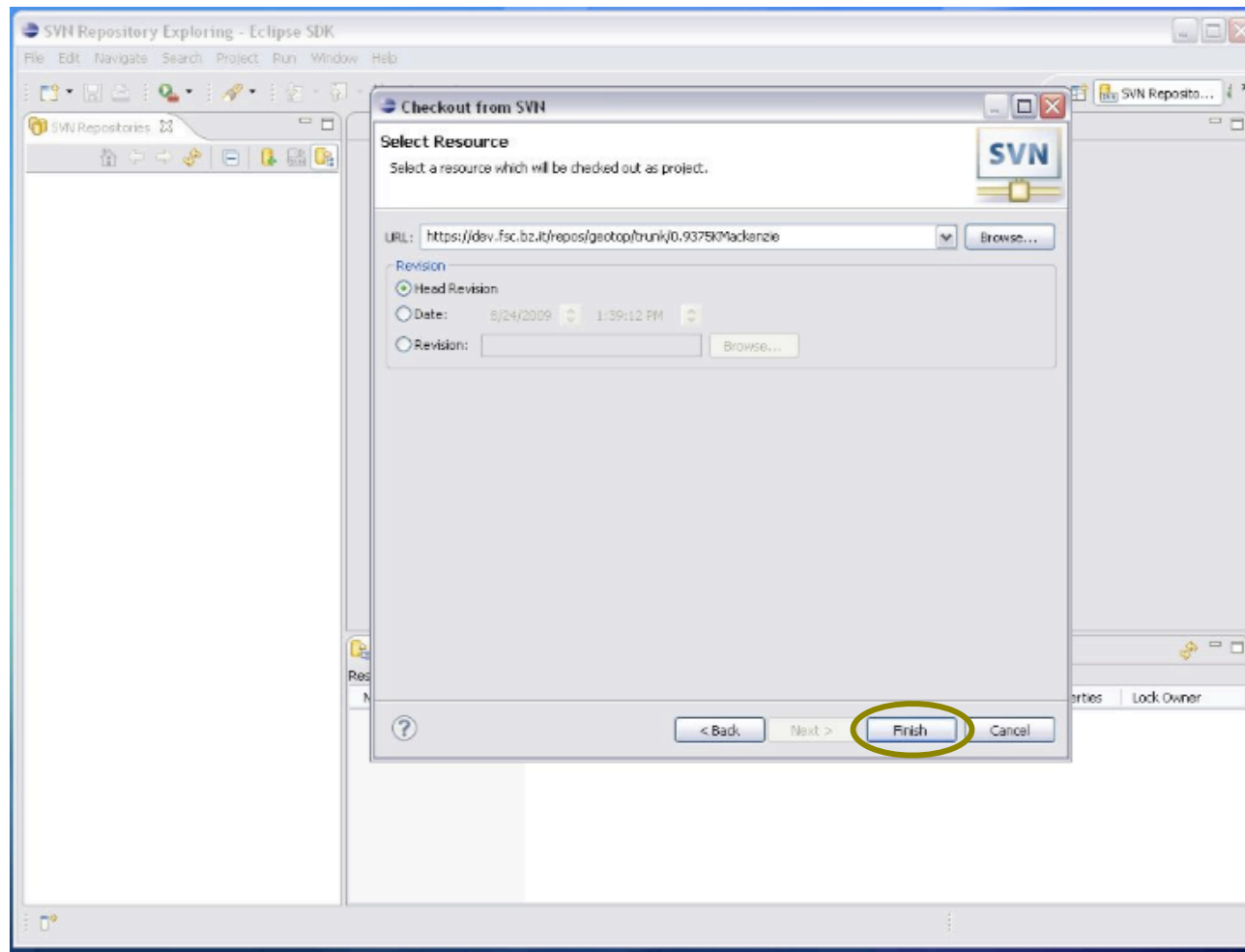
Download from SVN GEOTop code

- From geotop ## → trunk ## → select 0.9375KMackenzie ##

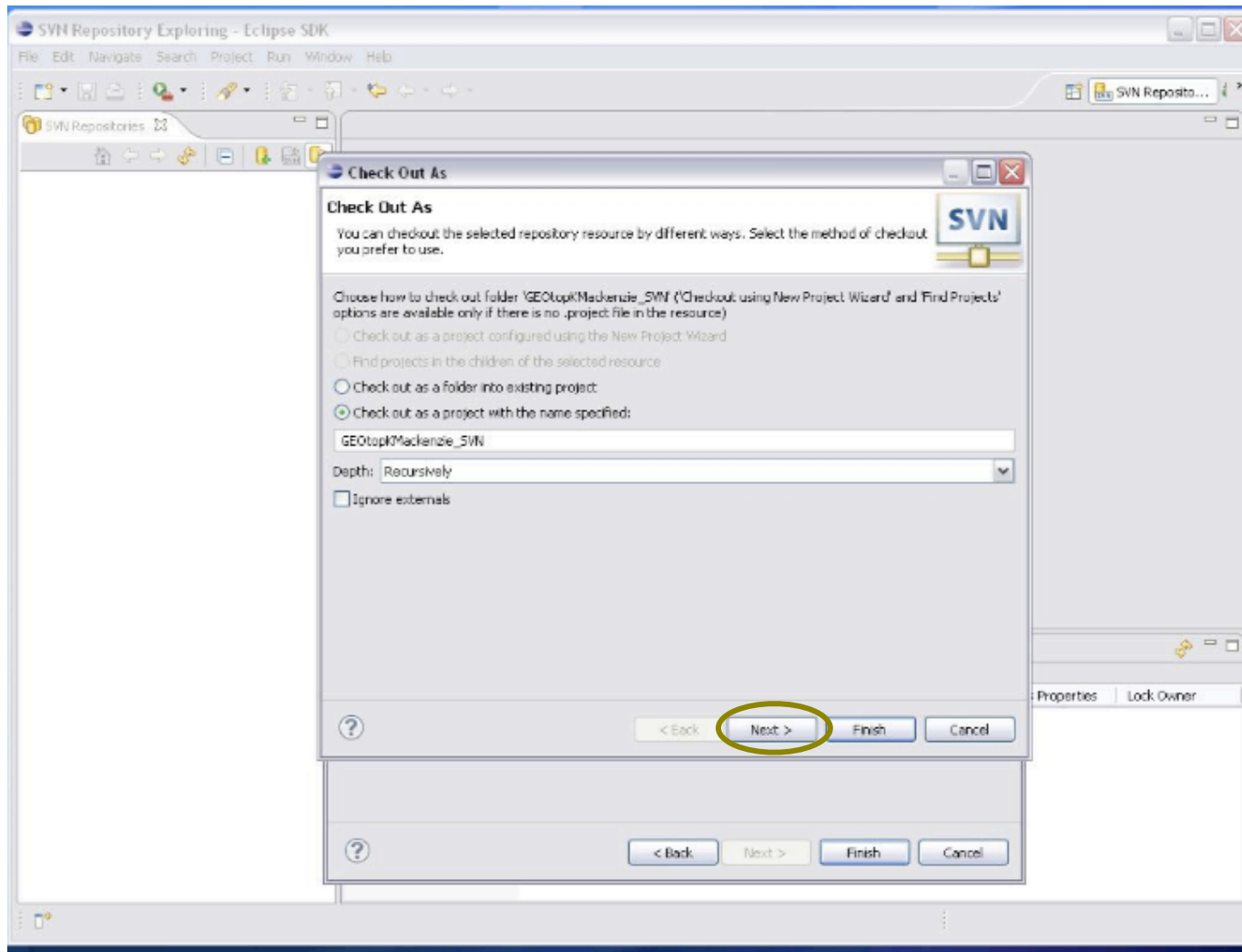
is the current version
(87 in the example)



Download from SVN GEOTop code

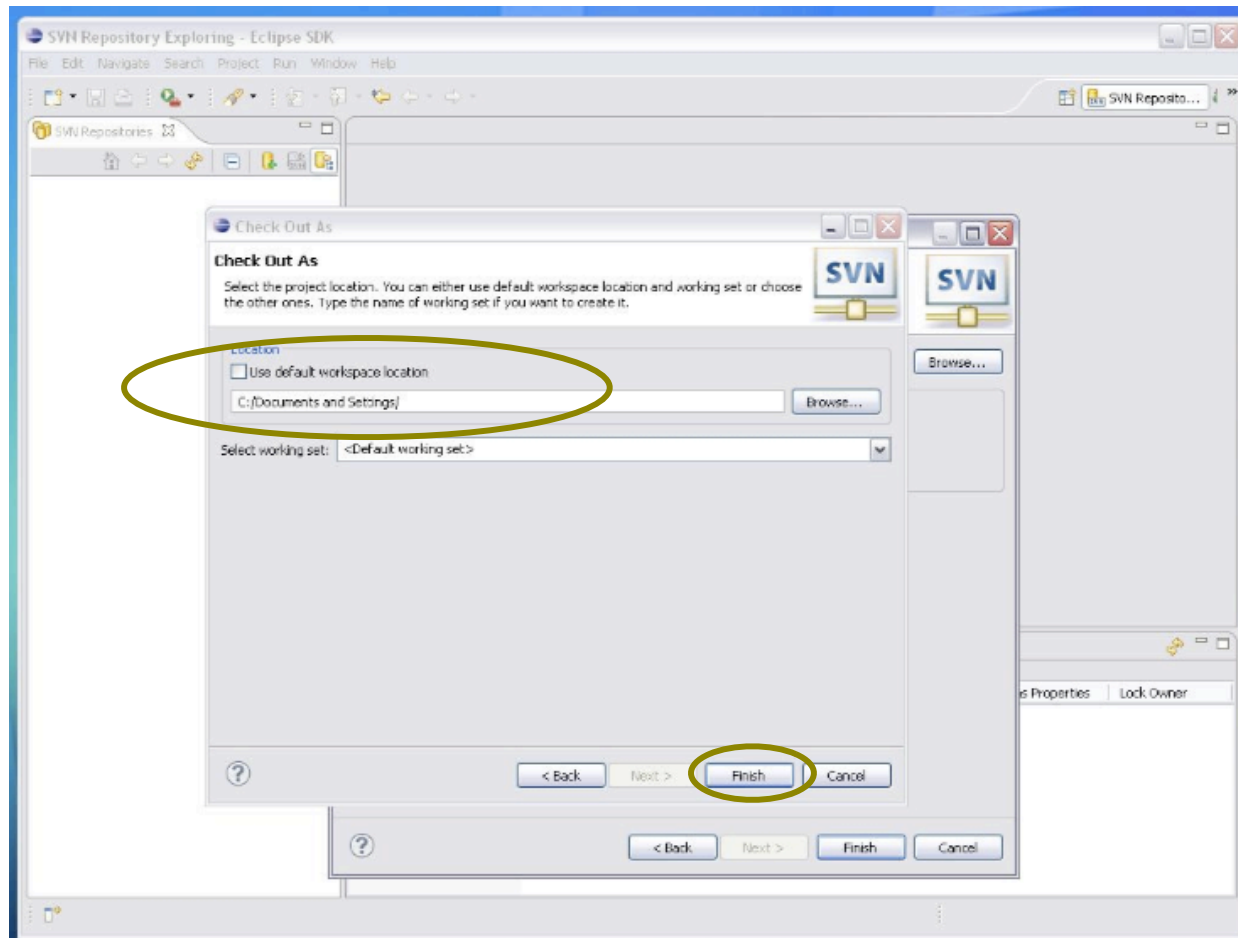


Download from SVN GEOTop code

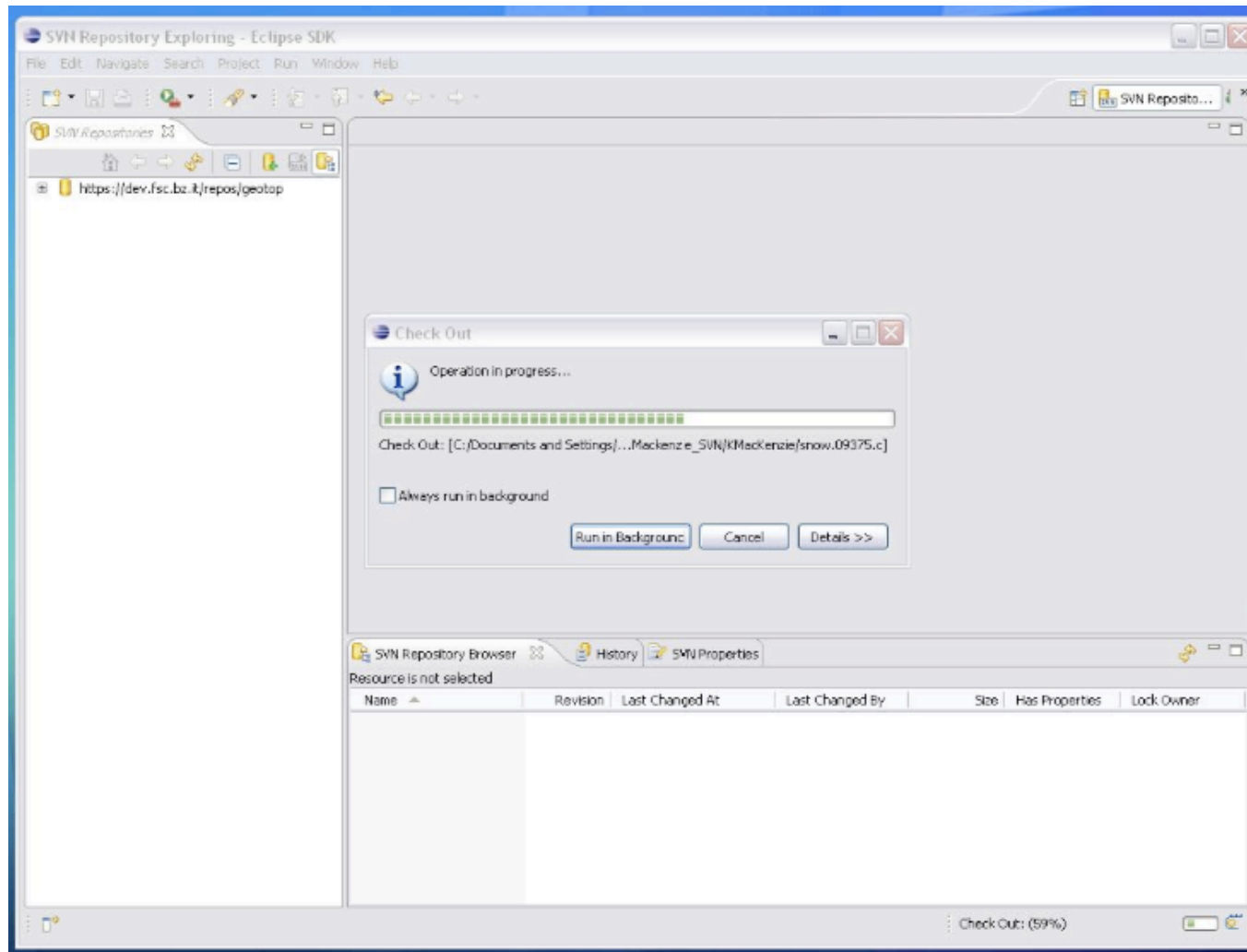


Download from SVN GEOTop code

- Do not save in workspace location but in any other path

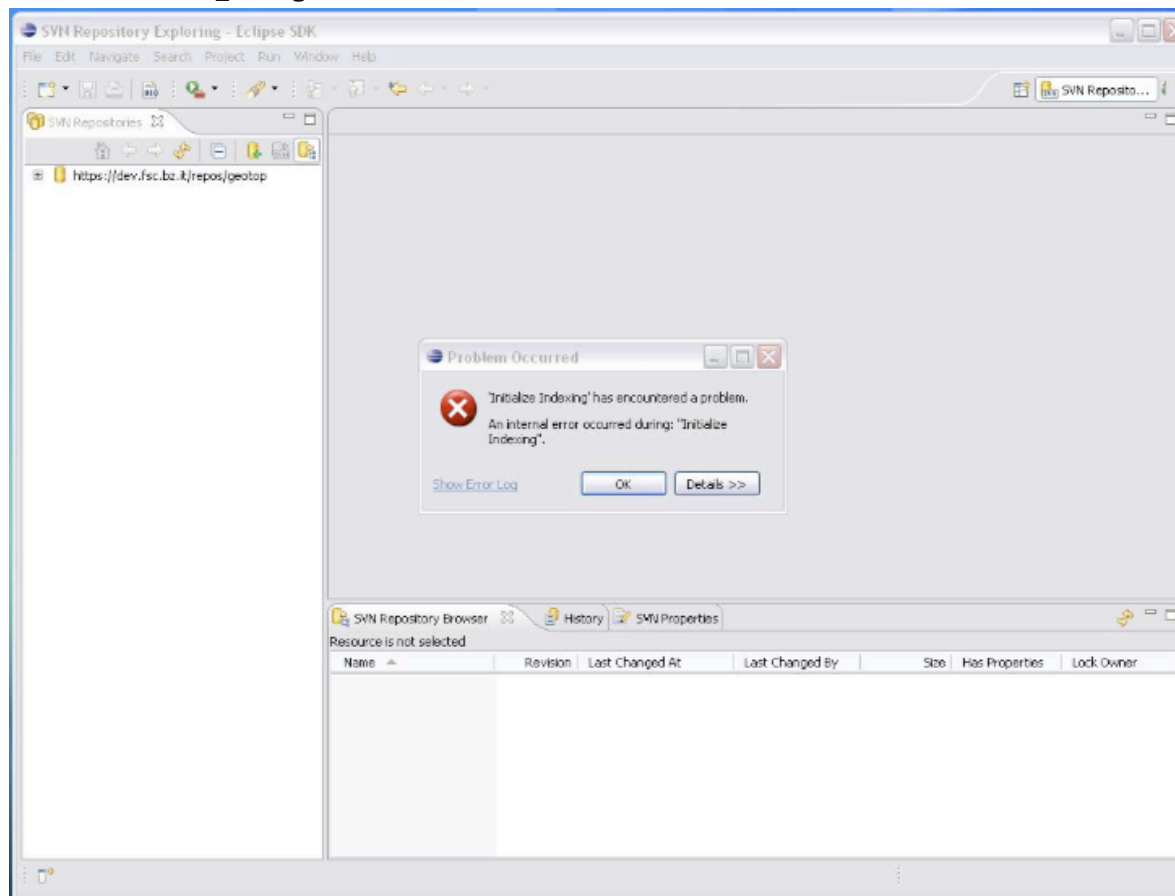


Download from SVN GEOTop code



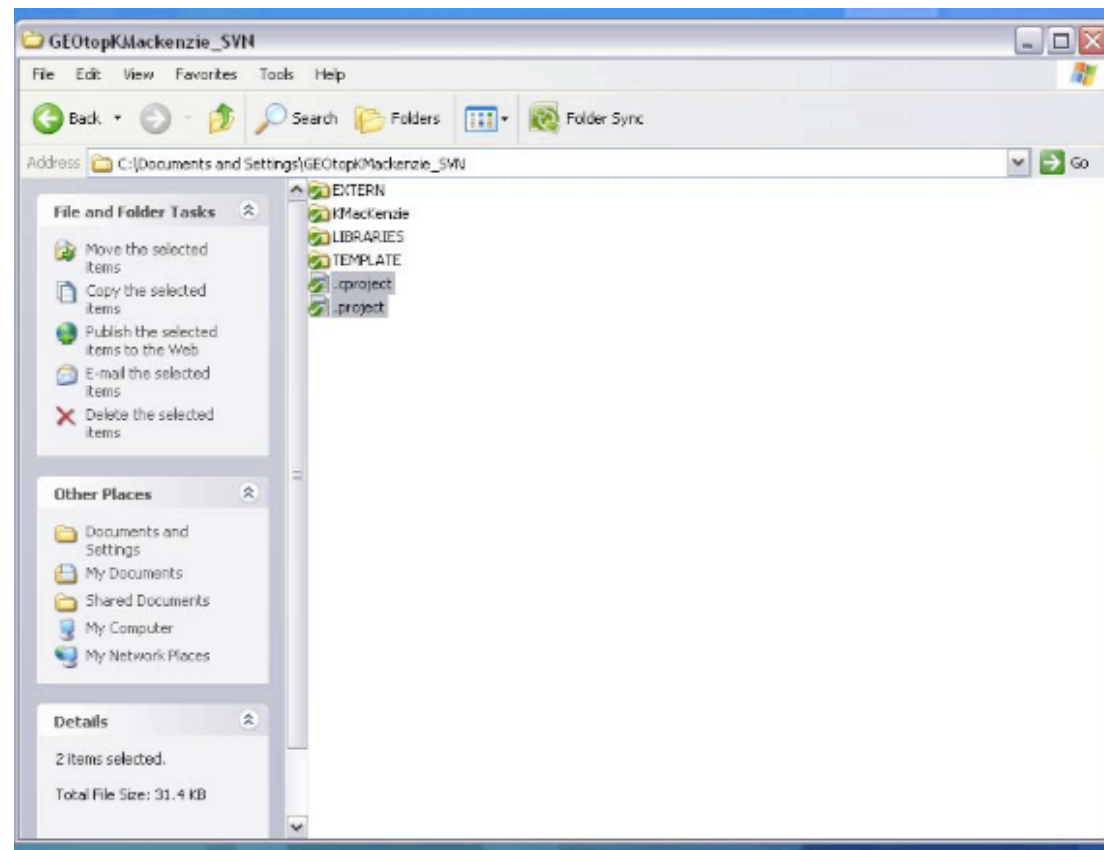
Download from SVN GEOTop code

- This error is not a problem because now you only download the code and next you will create the c project



Download from SVN GEOTop code

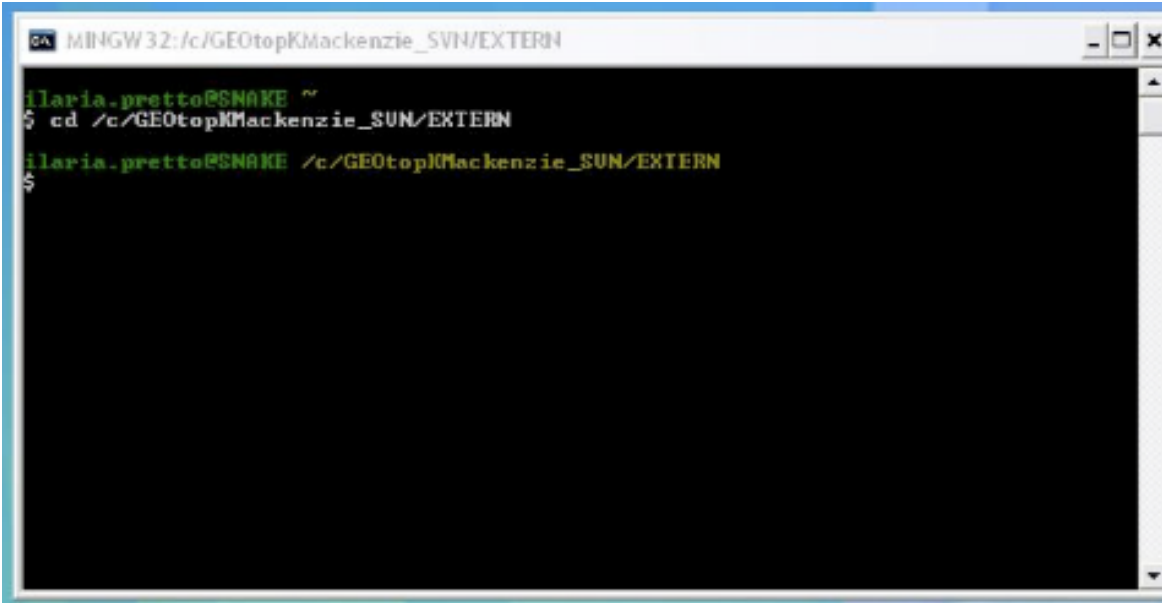
- You go in the location where you saved GEOTopKMackenzie_SVN code and delete .cproject and .project files.



To compile the fortran file micromet_code.f

To compile with MSYS the fortran file micromet_code.f

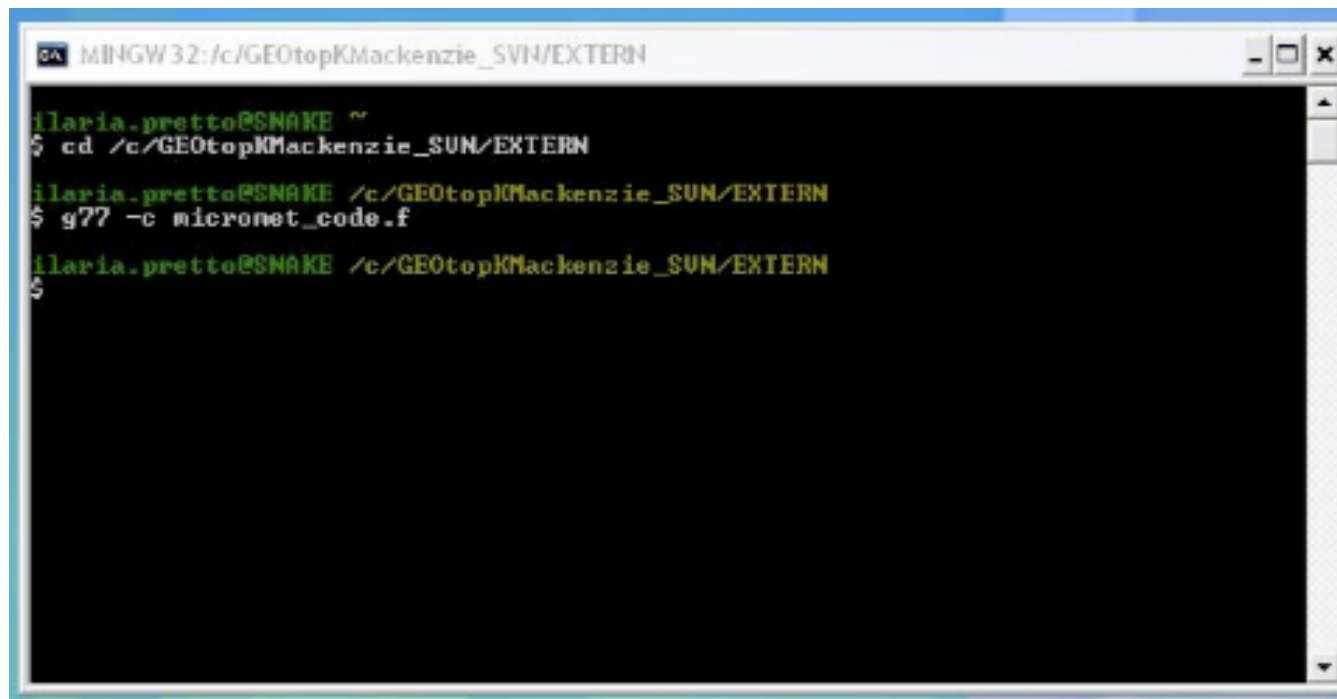
- Open MSYS terminal



```
CA MINGW32:/c/GEOTopKMackenzie_SVN/EXTERN
ilaria.pretto@SNAKE ~
$ cd /c/GEOTopKMackenzie_SVN/EXTERN
ilaria.pretto@SNAKE /c/GEOTopKMackenzie_SVN/EXTERN
$
```

To compile with MSYS the fortran file micromet_code.f

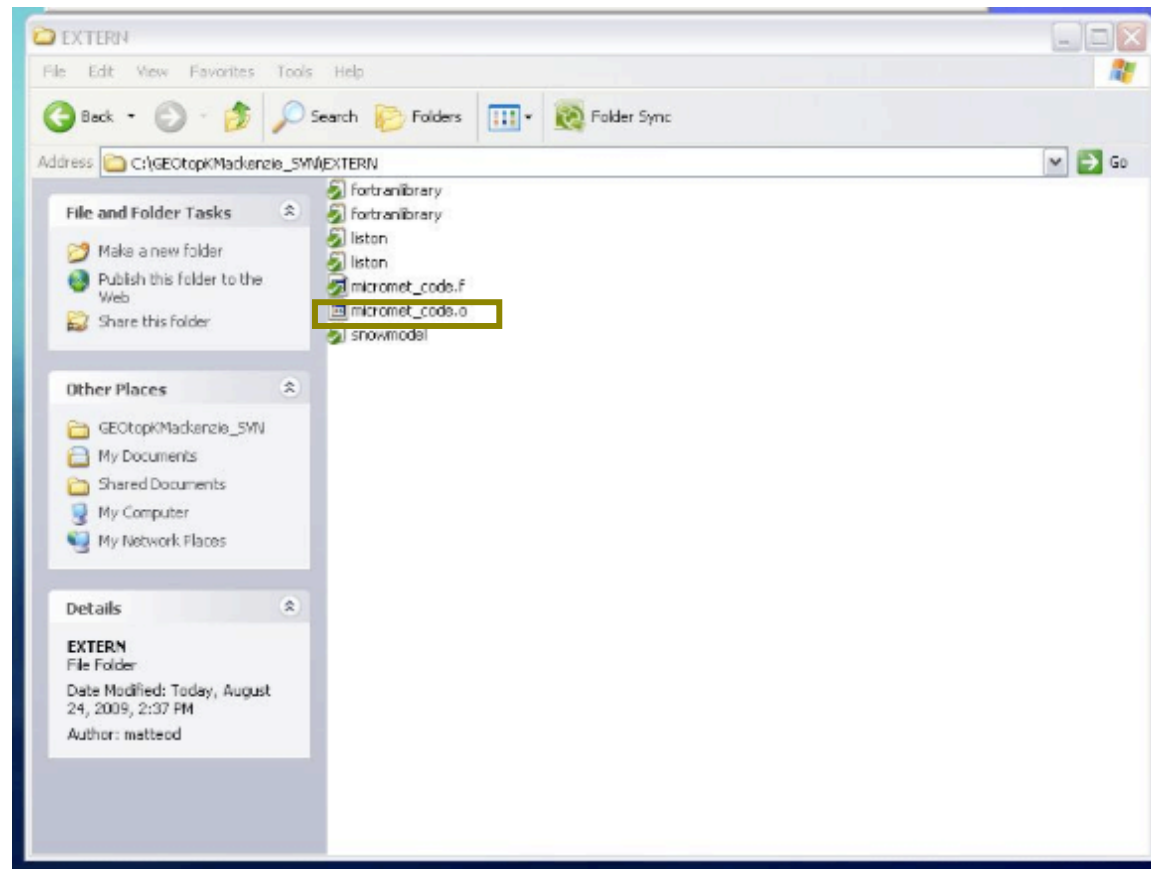
- From terminal go in GEOTopKMackenzie_SVN/EXTERN (downloaded before):
- If GEOTopKMackenzie_SVN/EXTERN location is in C:/ the syntax is shown down
- To compile the fortran code you write: g77 -c micromet_code.f



```
MINGW32:/c/GEOTopKMackenzie_SVN/EXTERN
ilaria.pretto@SNAKE ~
$ cd /c/GEOTopKMackenzie_SVN/EXTERN
ilaria.pretto@SNAKE /c/GEOTopKMackenzie_SVN/EXTERN
$ g77 -c micromet_code.f
ilaria.pretto@SNAKE /c/GEOTopKMackenzie_SVN/EXTERN
$
```

To compile with MSYS the fortran file micromet_code.f

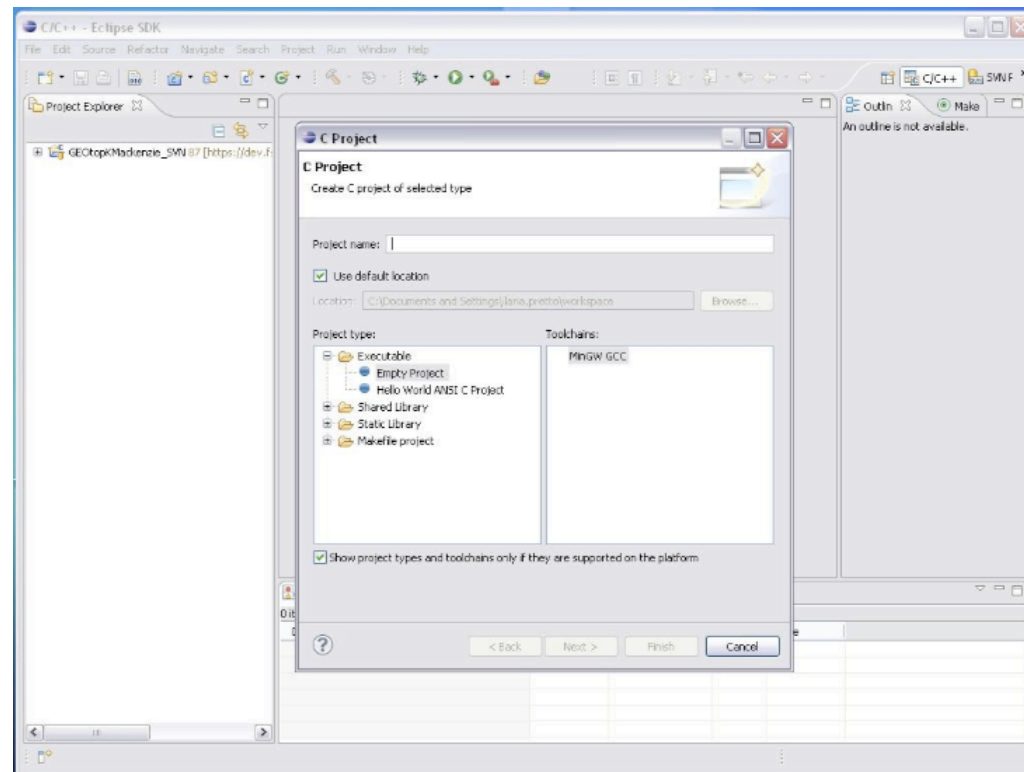
- This creates the file: micromet_code.o



To create GEOTop c project

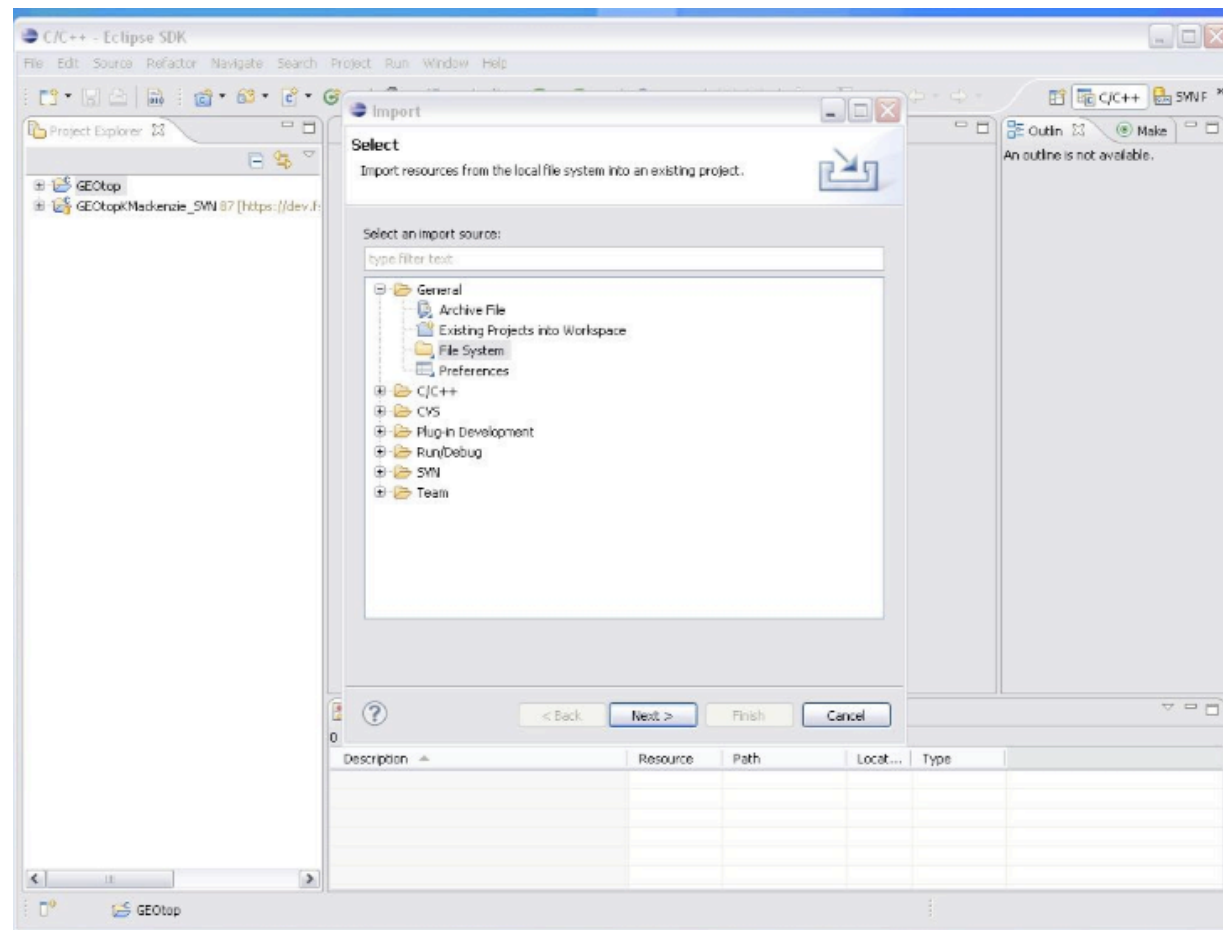
To create GEOTop c project

- In Eclipse, window → open prospective → other → C C++ ;
- Create a new C project (I named it GEOTop) as an executable, empty project using the MinGW toolchain



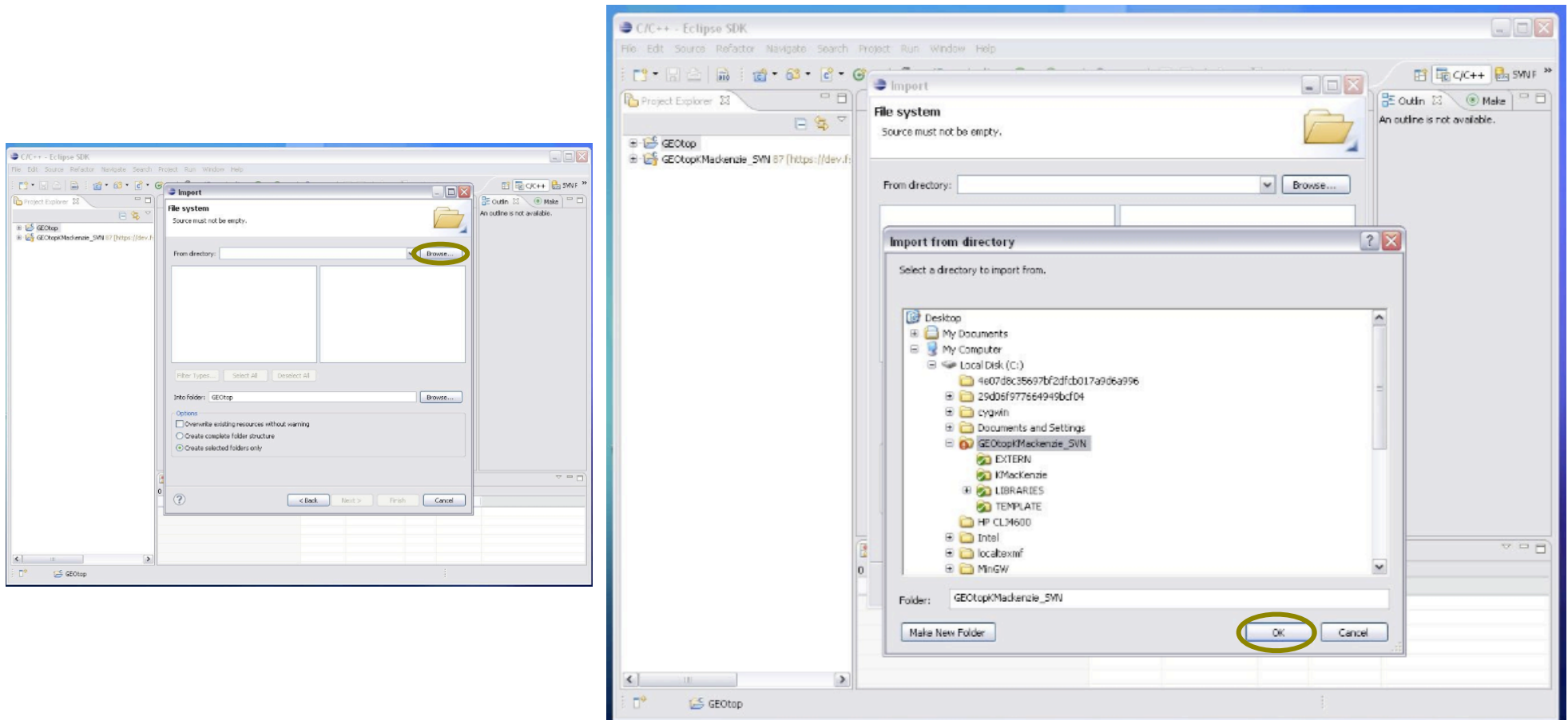
To create GEOTop c project

- Right click on the GEOTop project → select Import → General → Filesystem



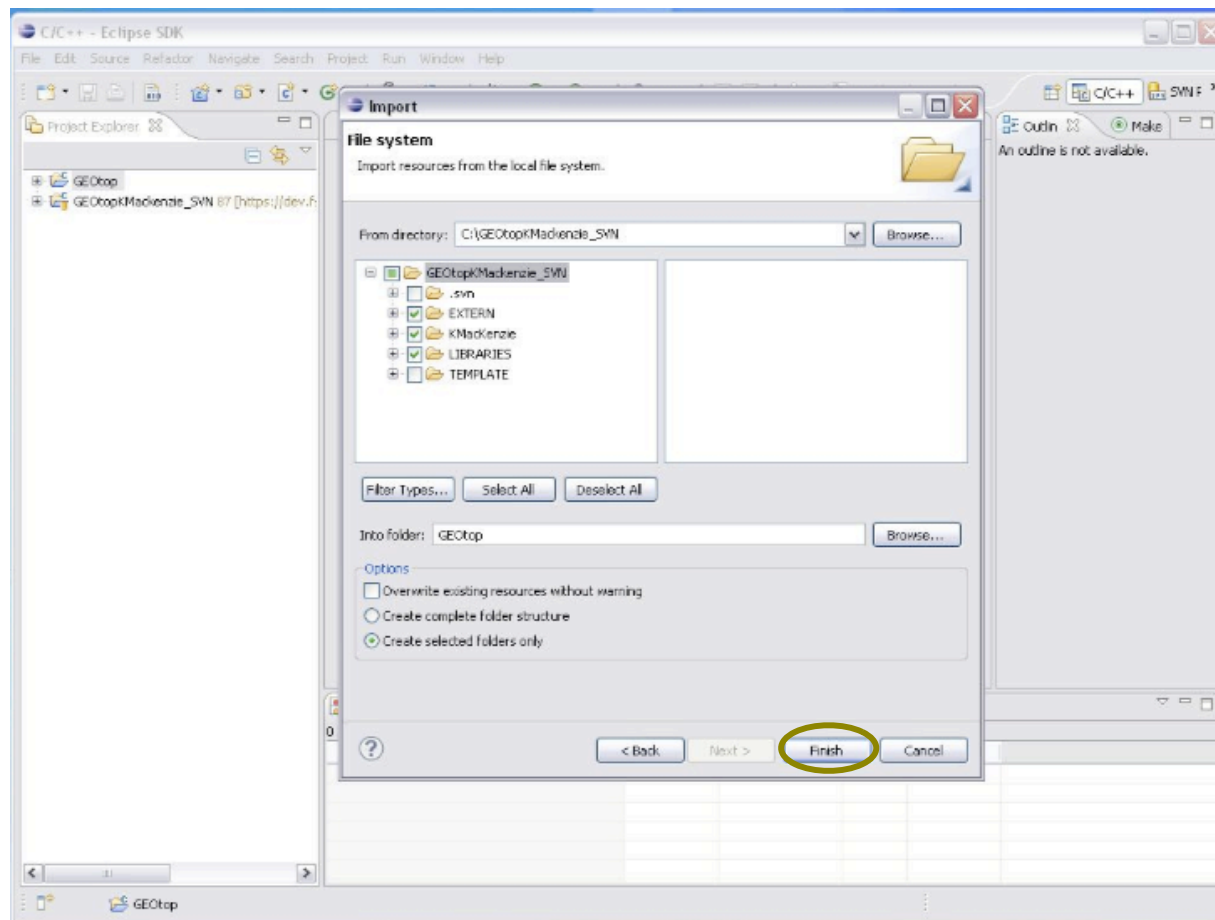
To create GEOTop c project

- From Browse navigate to your GEOTopKMackenzie_SVN directory



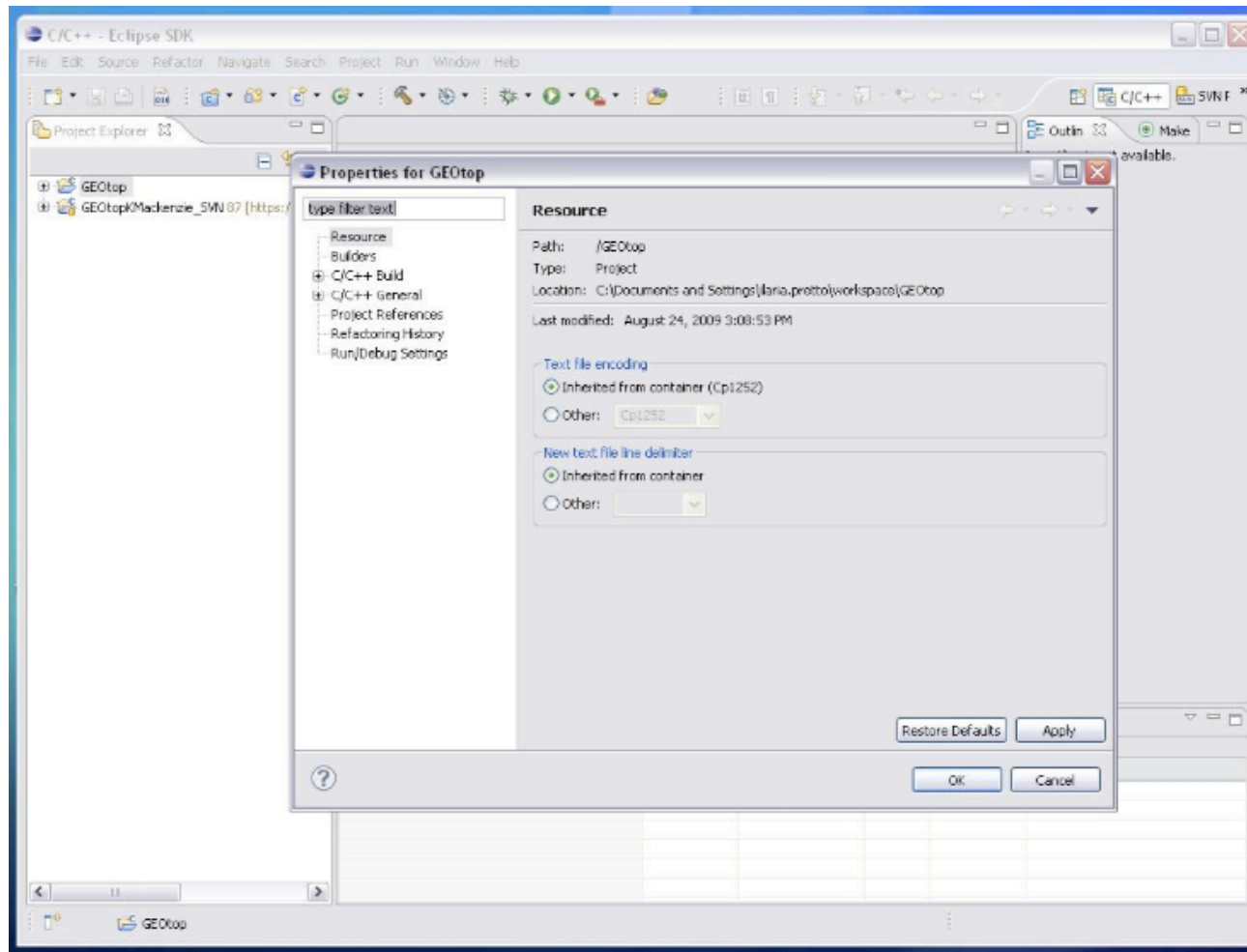
To create GEOTop c project

- Check EXTERN, KMackenzie, LIBRARIES
- Make sure that the Option "Create selected folders only" is selected.



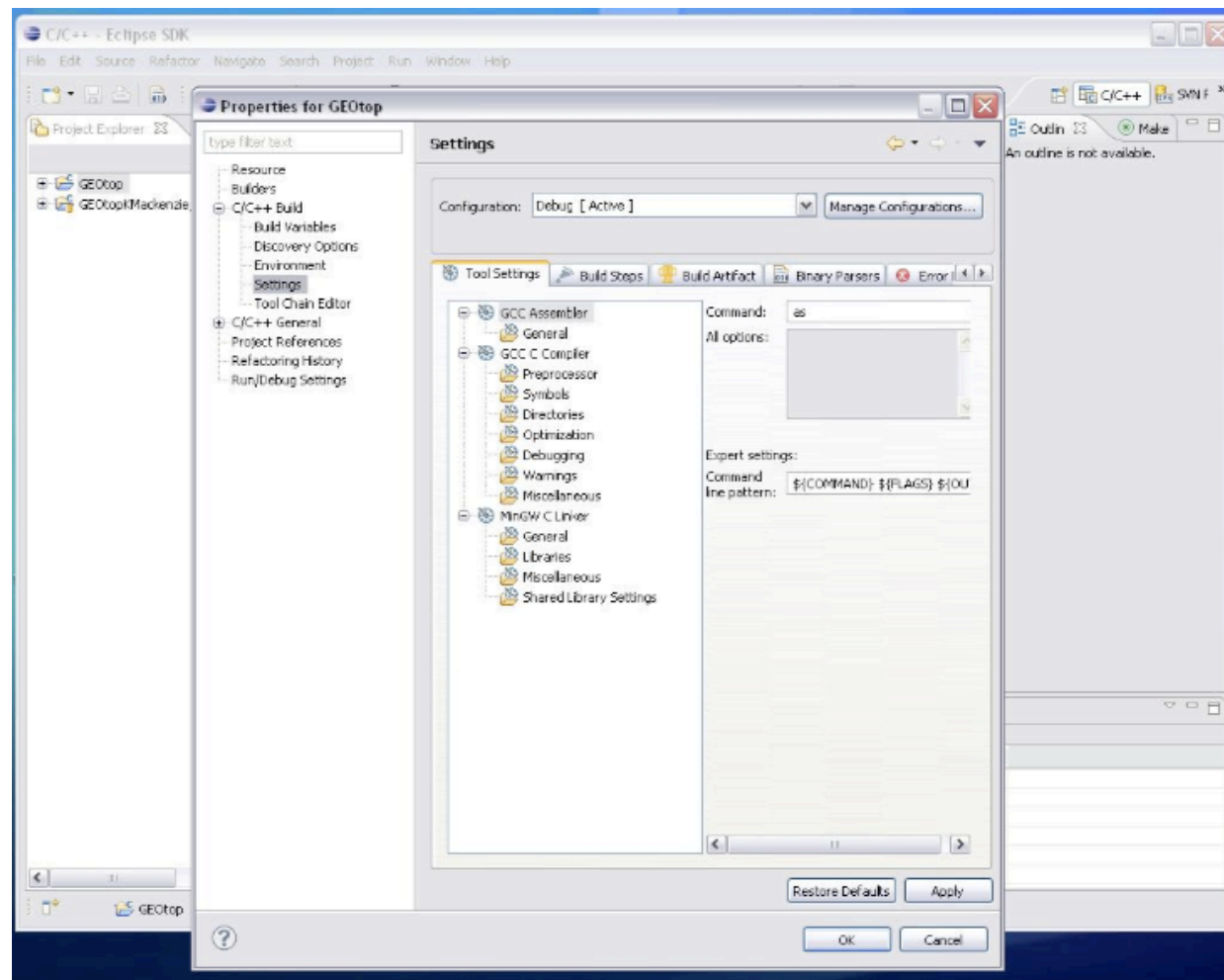
To create GEOTop c project

- Right click on the GEOTop project → Properties



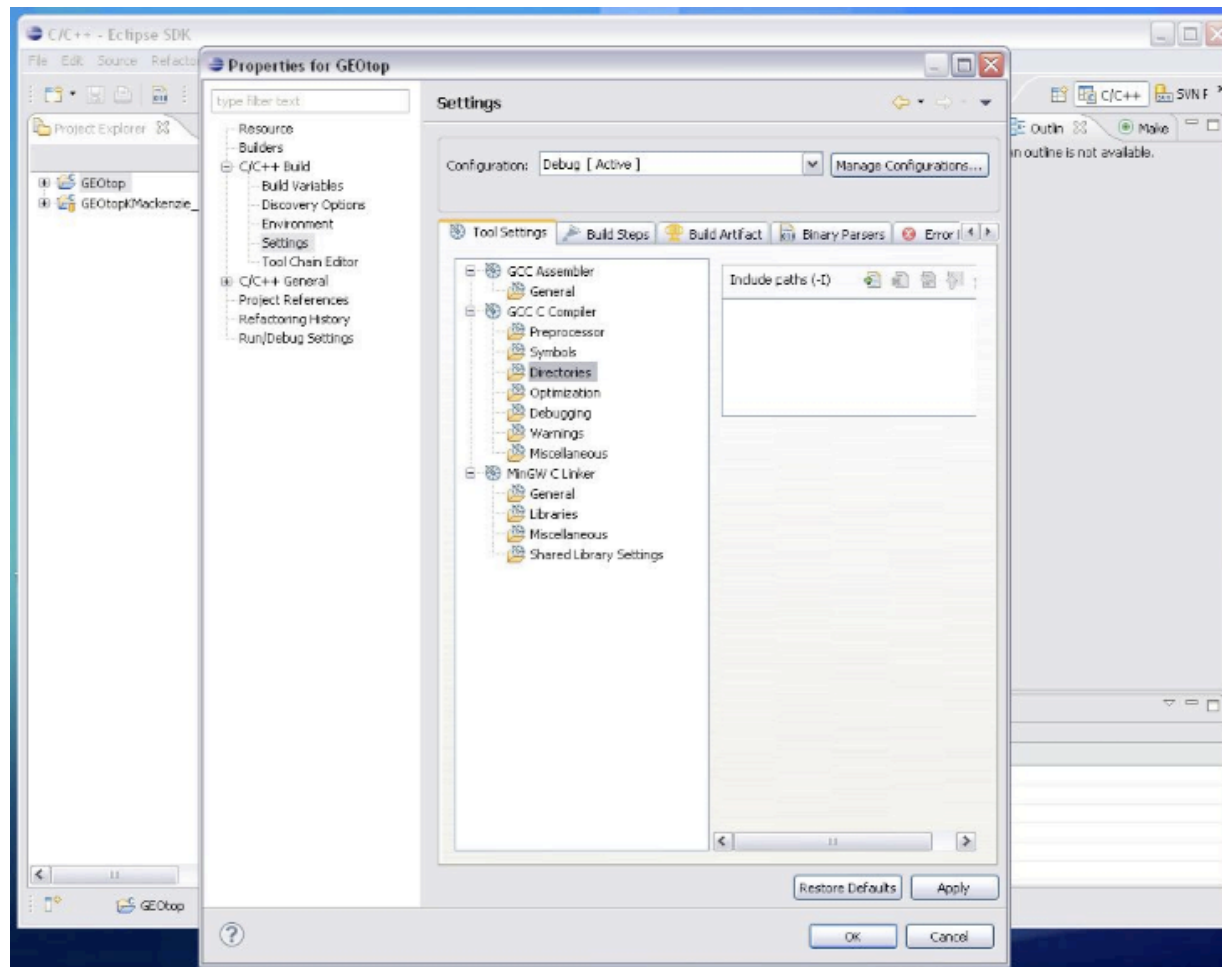
To create GEOTop c project

- C C++ Build → Settings → Tool Setting tab



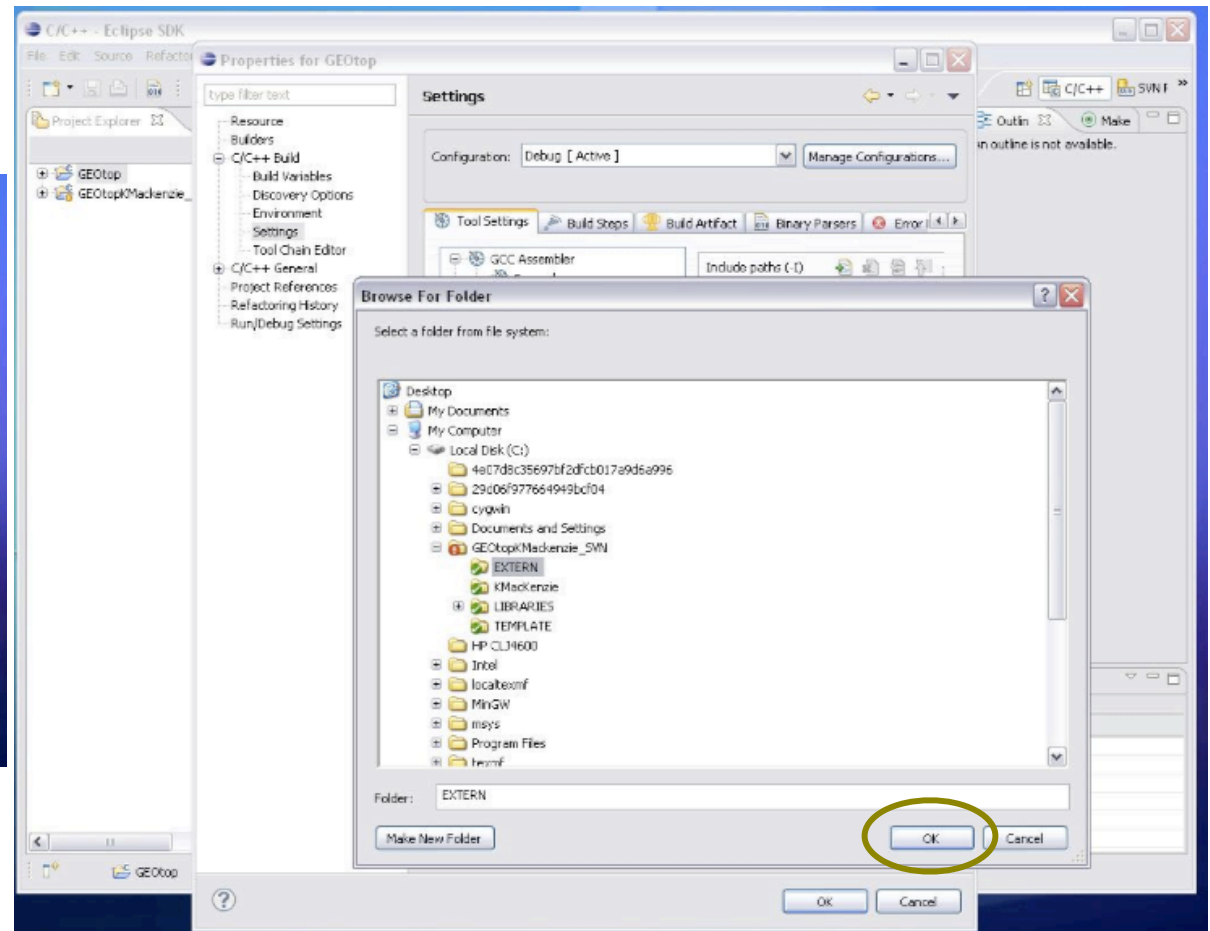
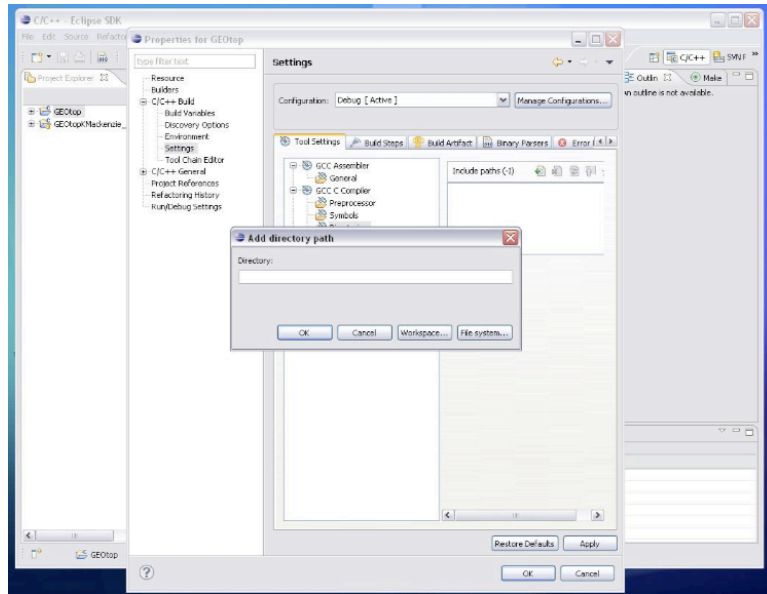
To create GEOTop c project

- GCC C Compiler → Directories → Include path → add



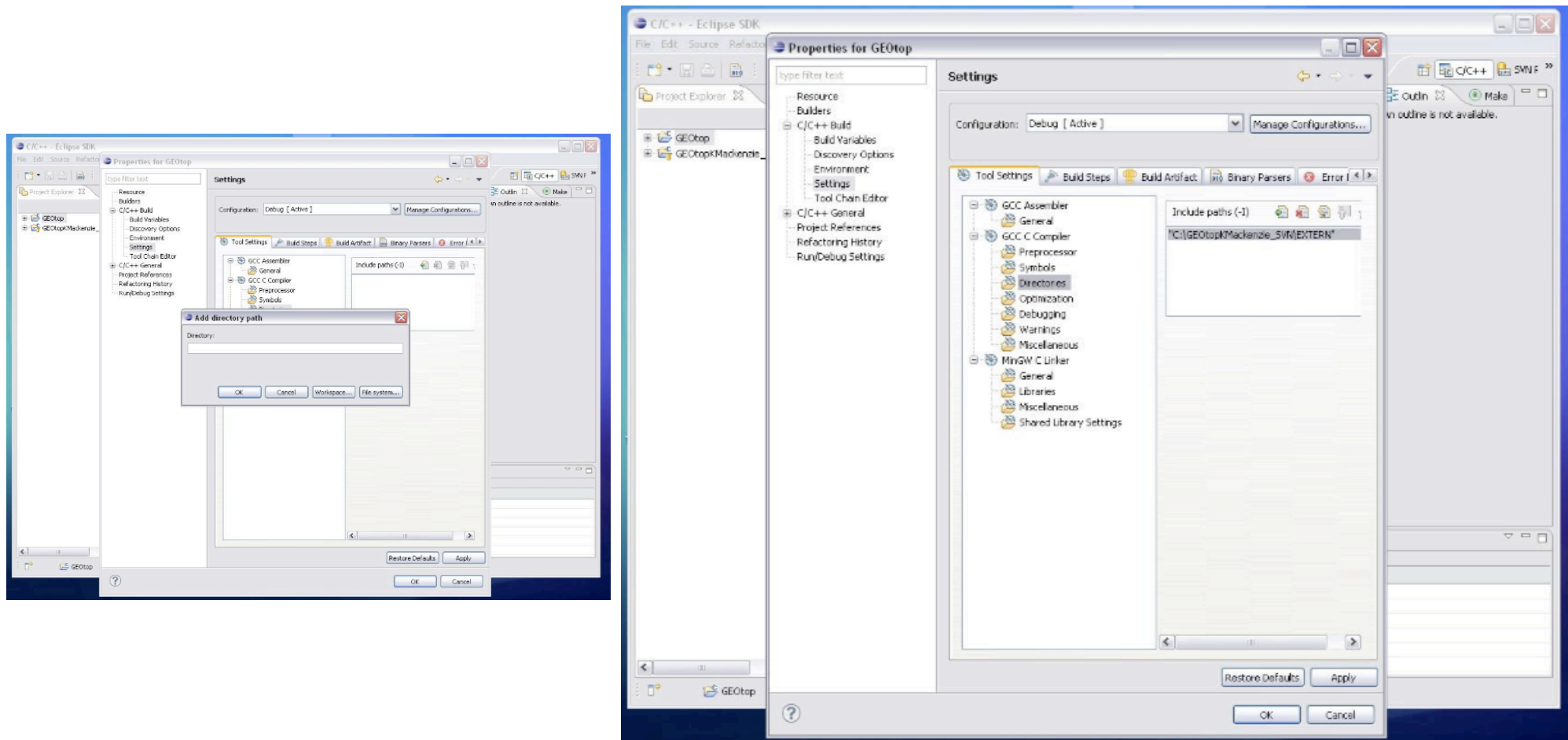
To create GEOTop c project

- File system → Arrive to EXTERN folder in GEOTopKMackenzie_SVN

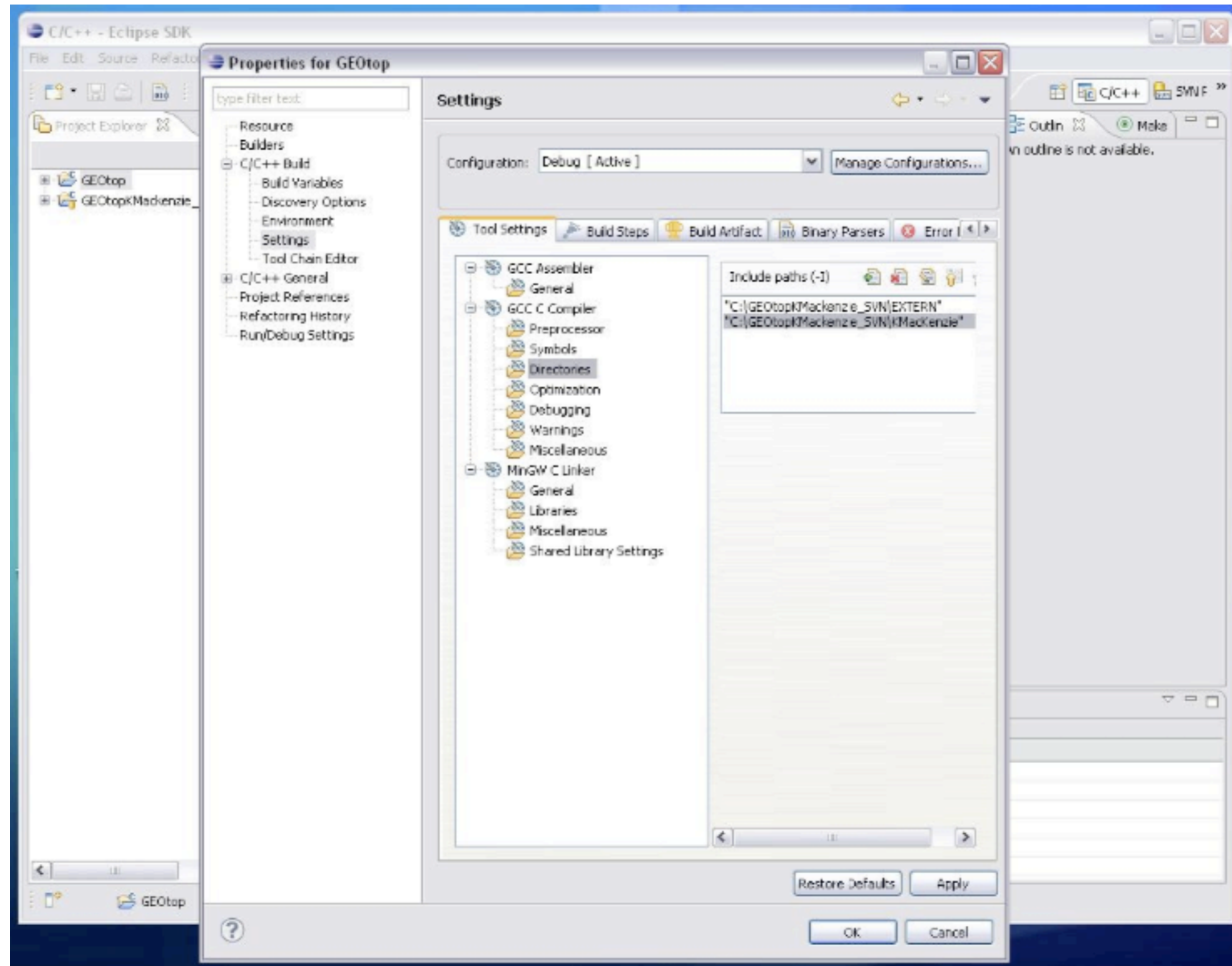


To create GEOTop c project

- add → File system → Arrive to KMackenzie folder in GEOTopKMackenzie_SVN

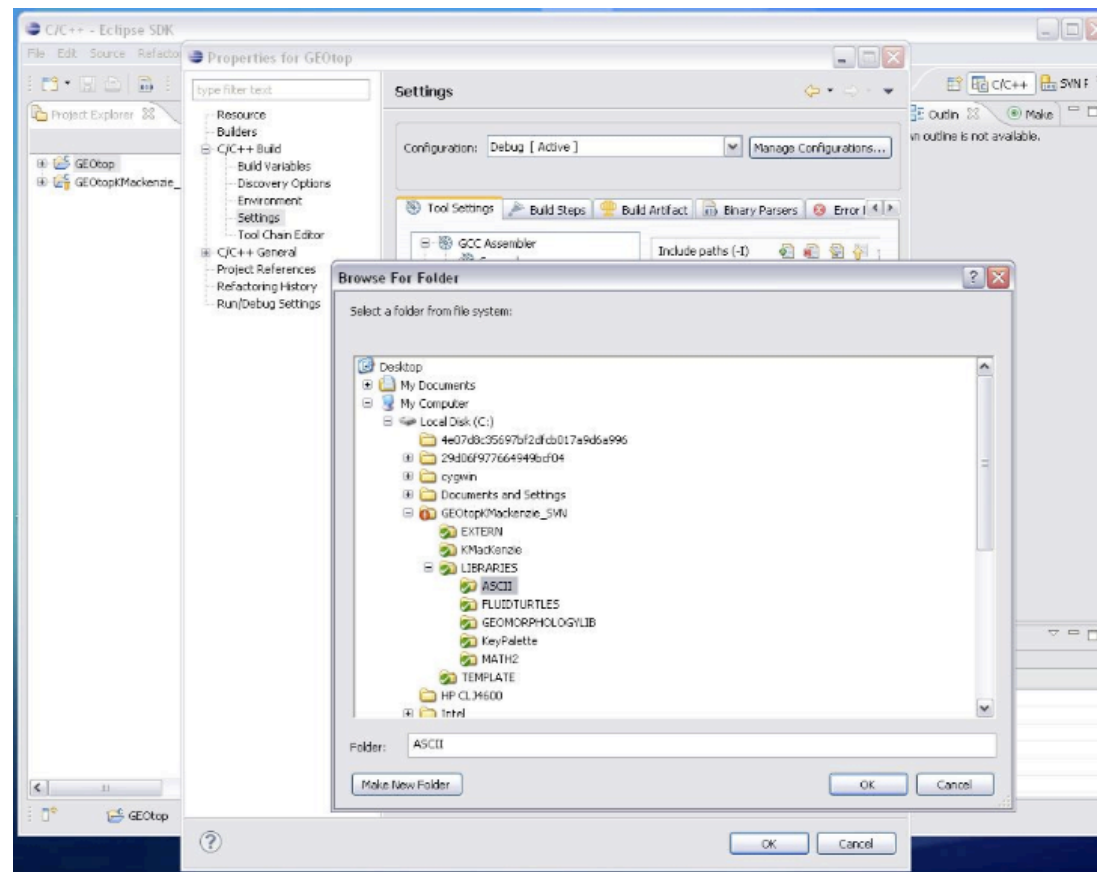


To create GEOTop c project

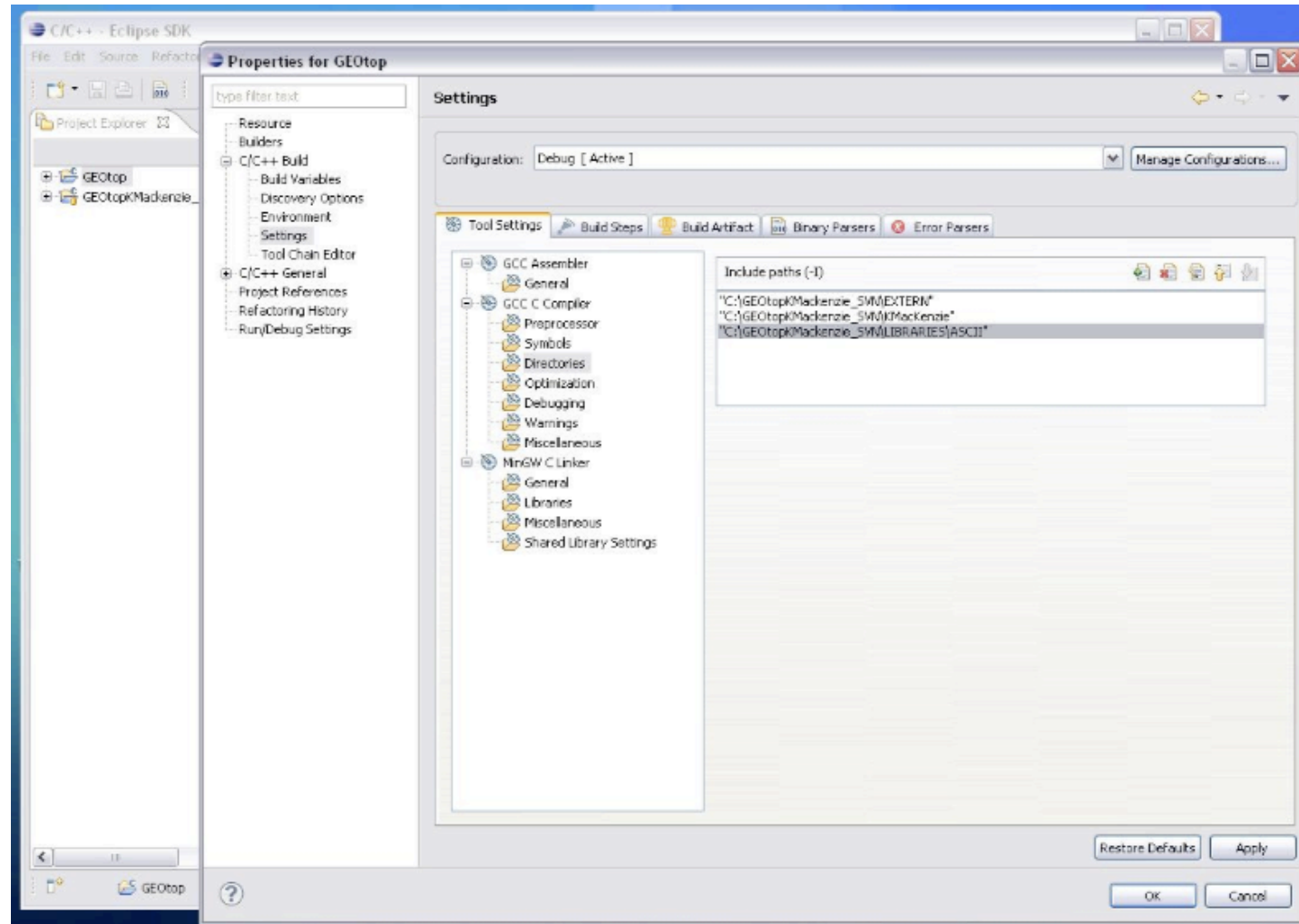


To create GEOTop c project

- add → File system → Arrive to LIBRARIES folder in GEOTopKMackenzie_SVN
- Select ASCII → OK

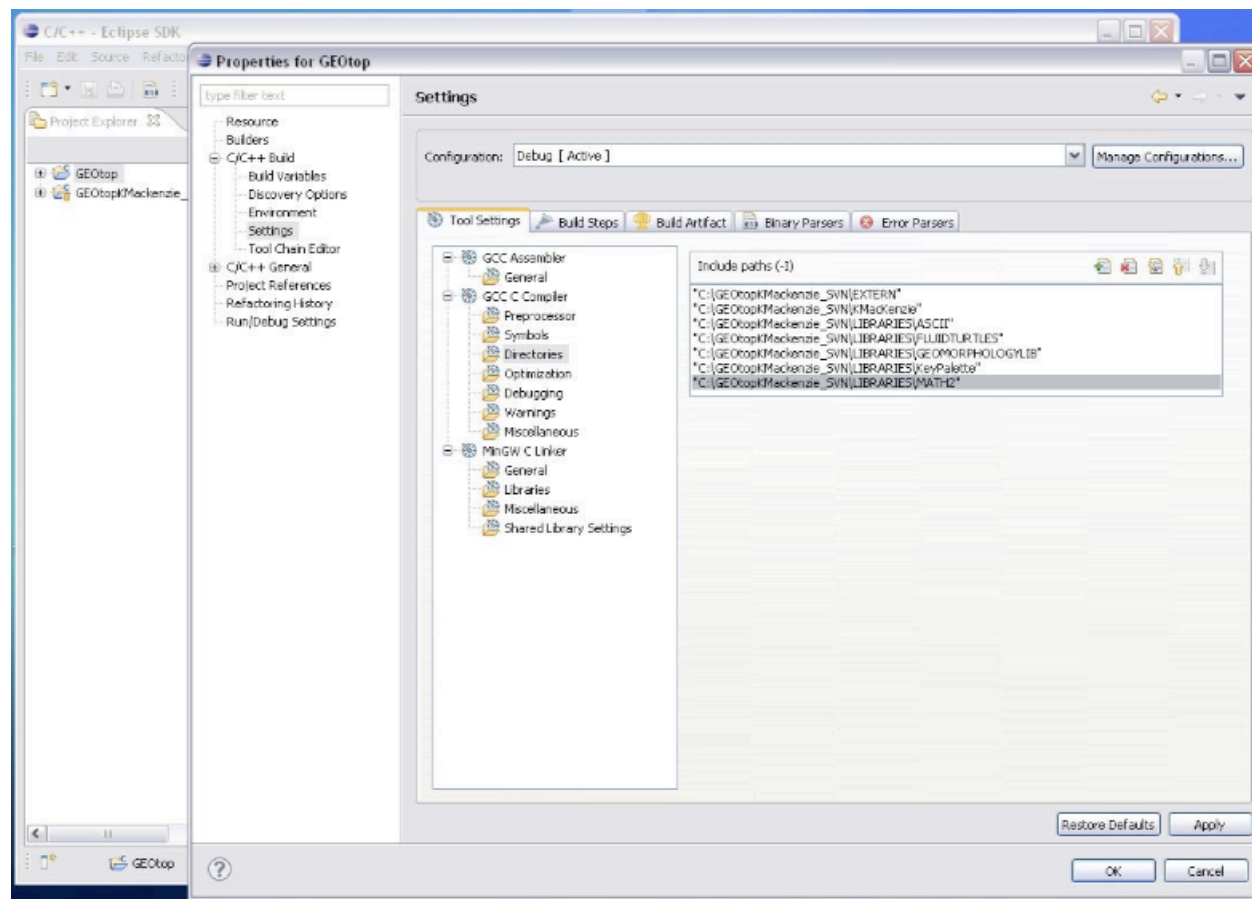


To create GEOTop c project



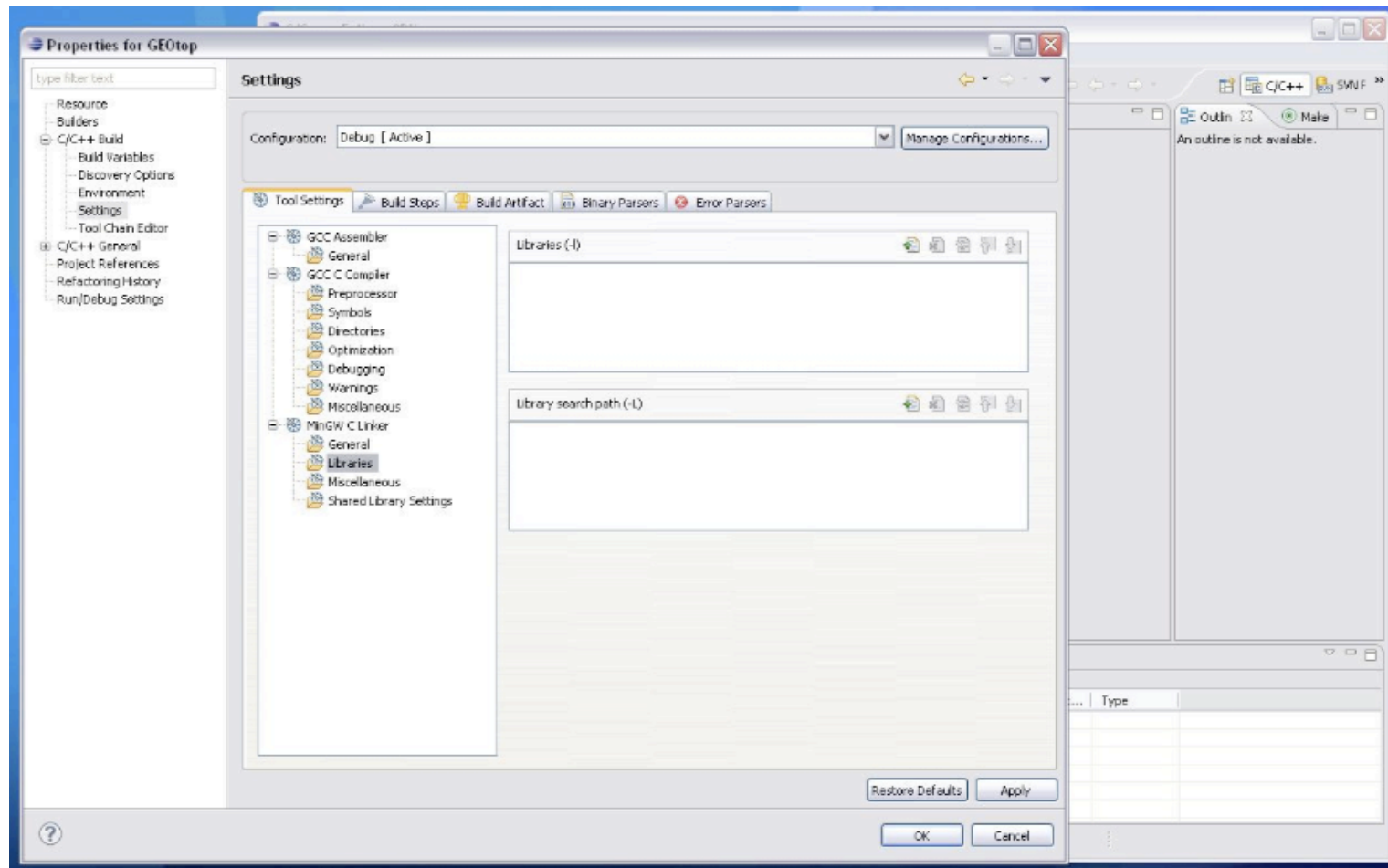
To create GEOTop c project

- Repeat the same procedure of the ASCII library for the other libraries.
- Finally you obtain:



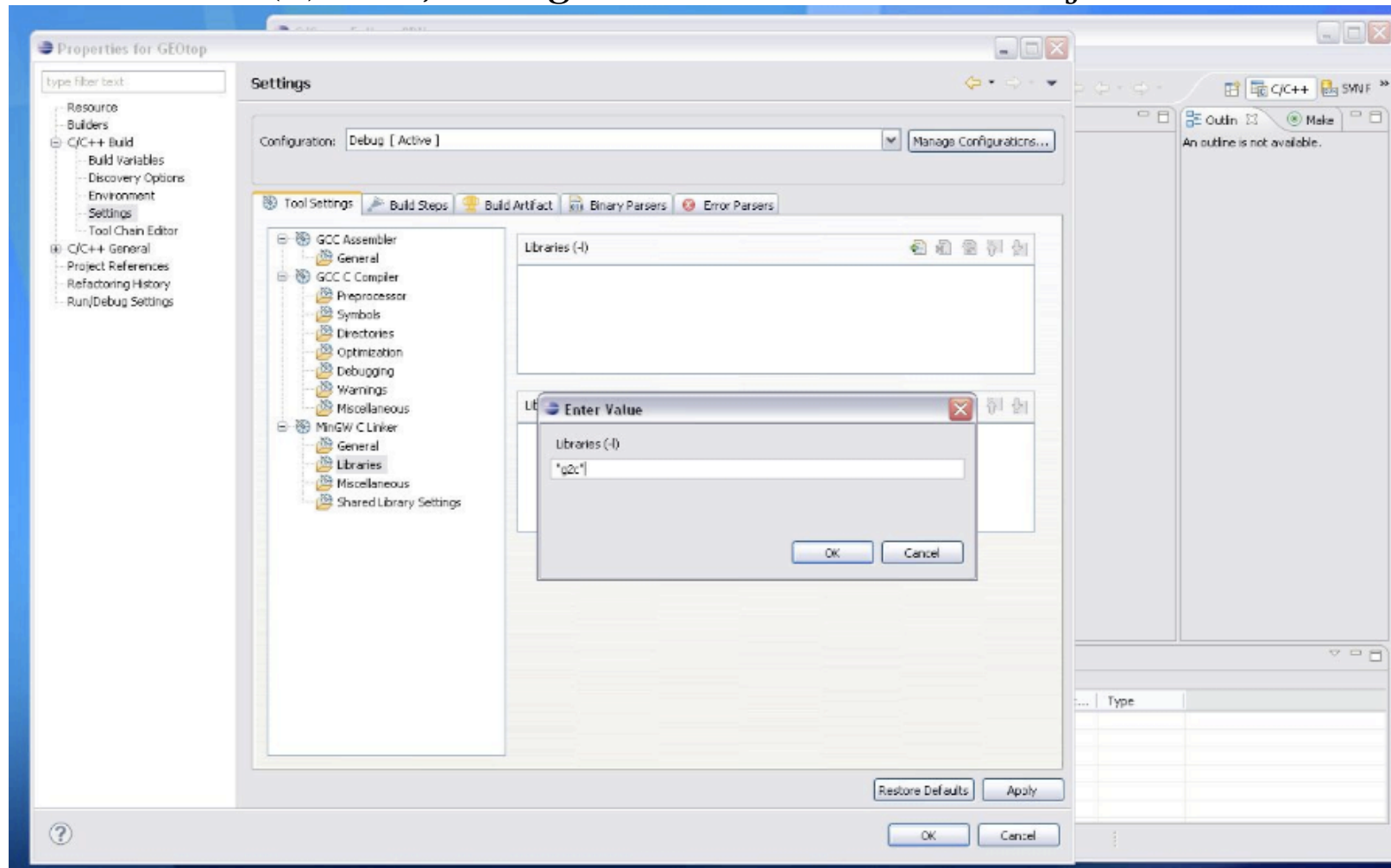
To create GEOTop c project

- Still in C/C++ Build → Settings → MinGW C Linker → Libraries



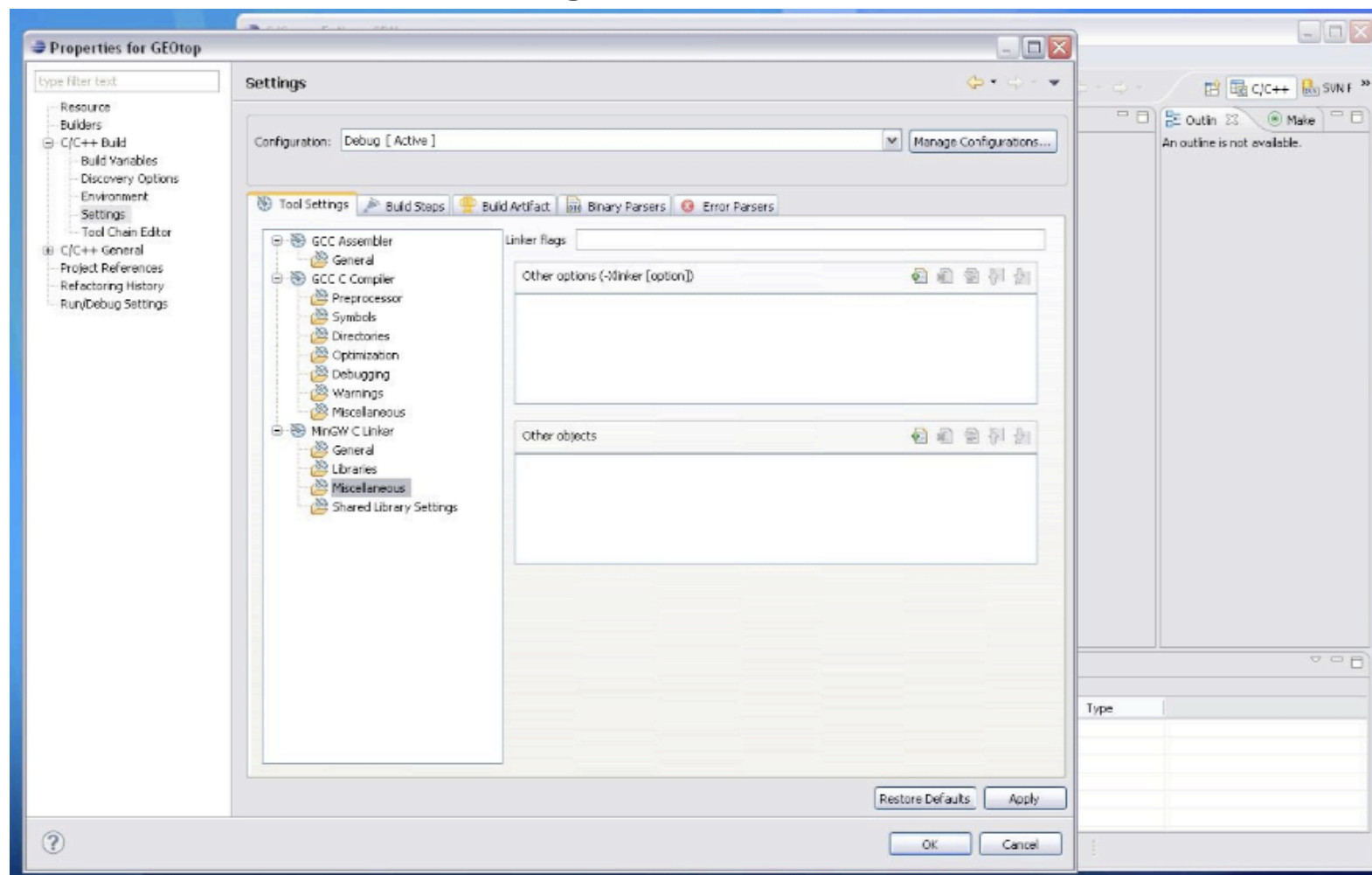
To create GEOTop c project

- In the "Libraries (-l)" box, add "g2c" to link the fortran object file micromet_code.o



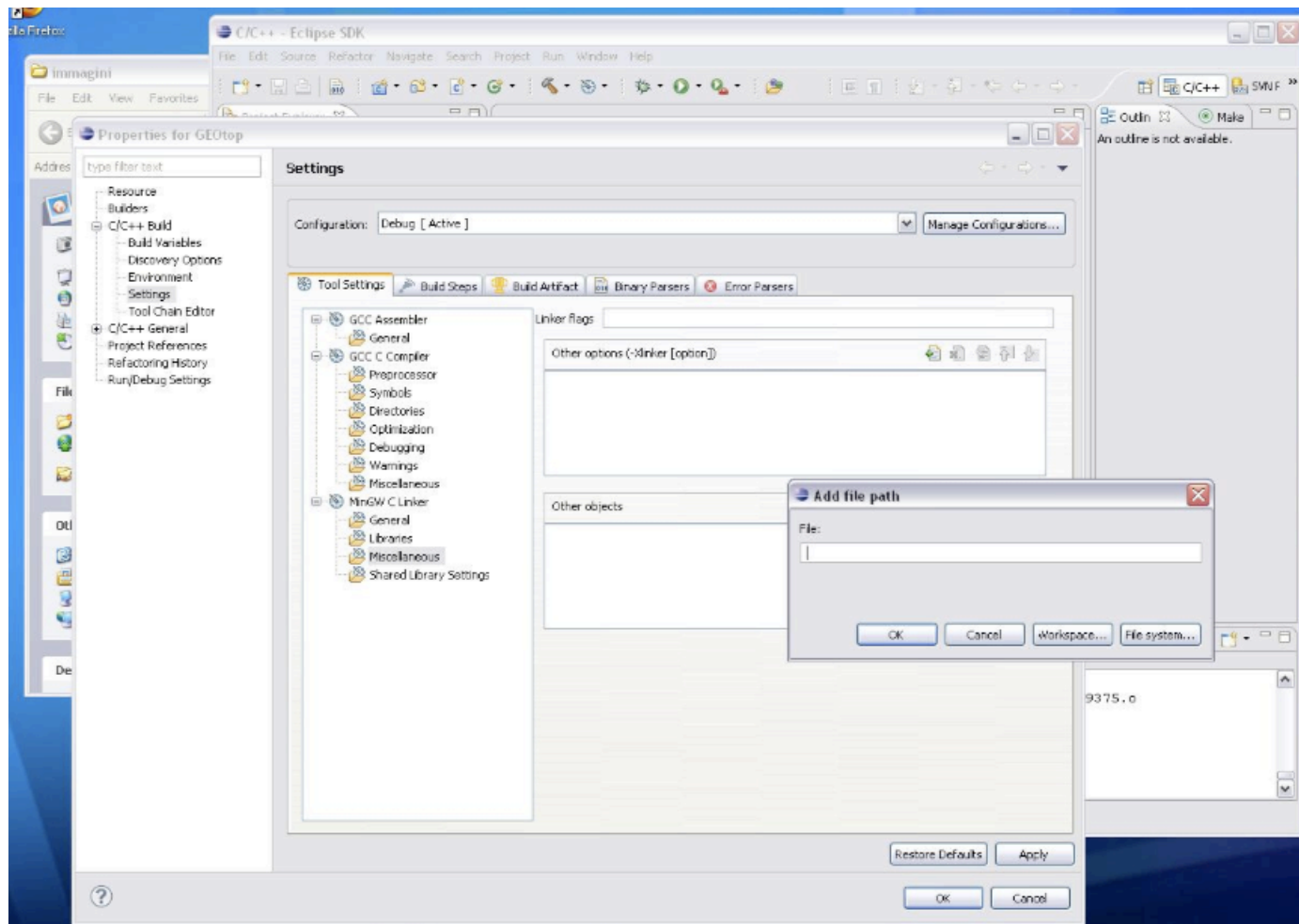
To create GEOTop c project

- Still in C/C++ Build → Settings → MinGW C Linker → Miscellaneous



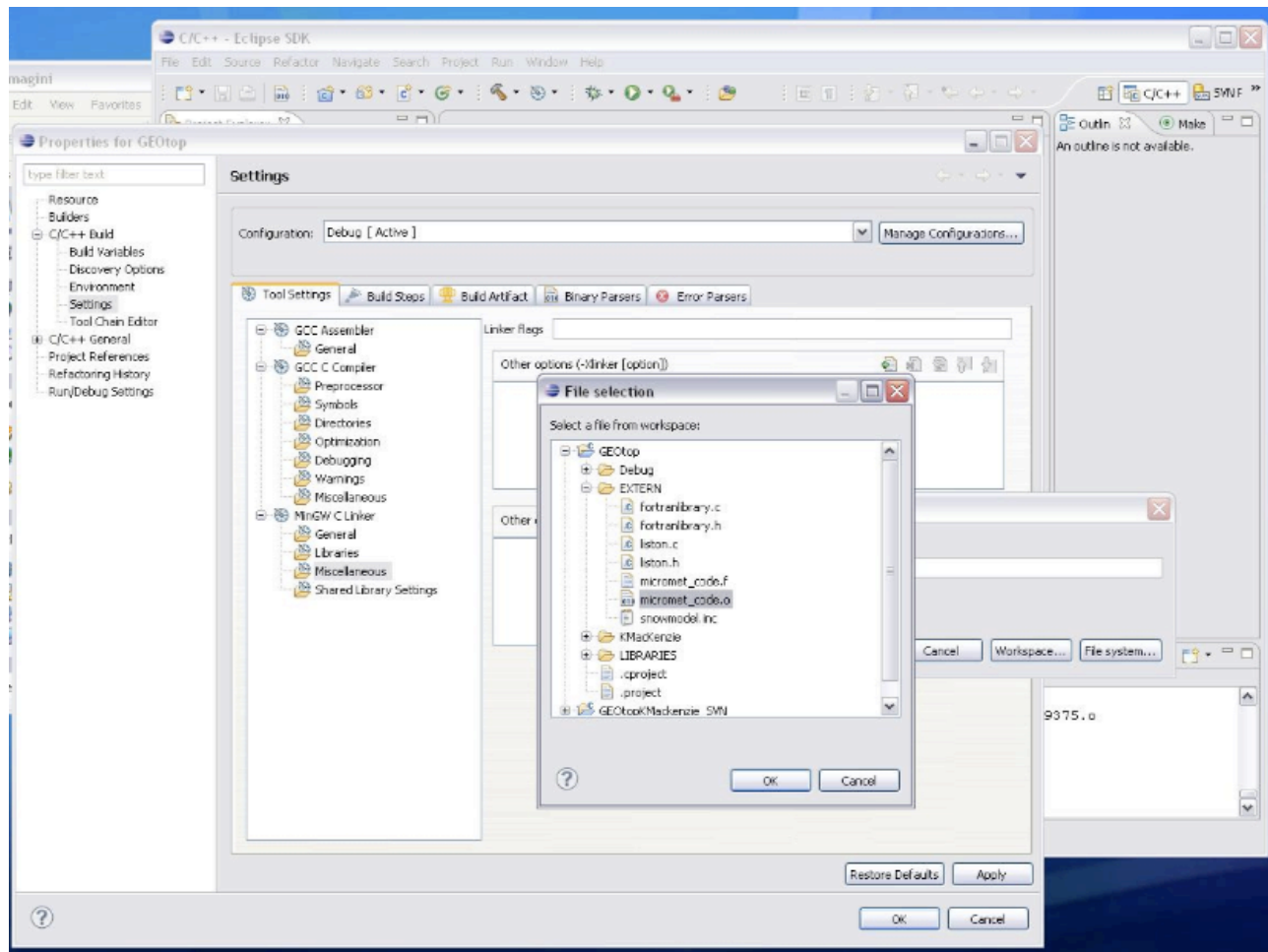
To create GEOTop c project

- In the "Other objects" box, add in the full path and filename for micromet_code.o



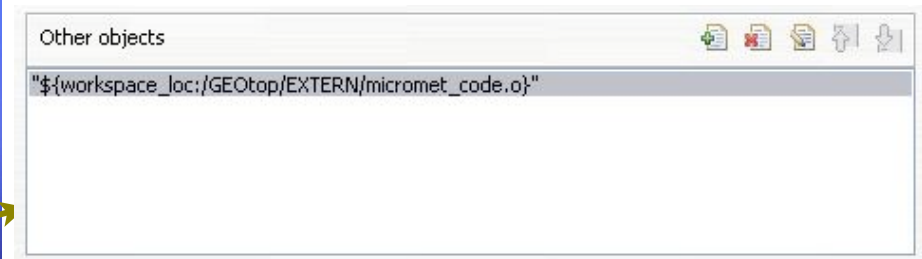
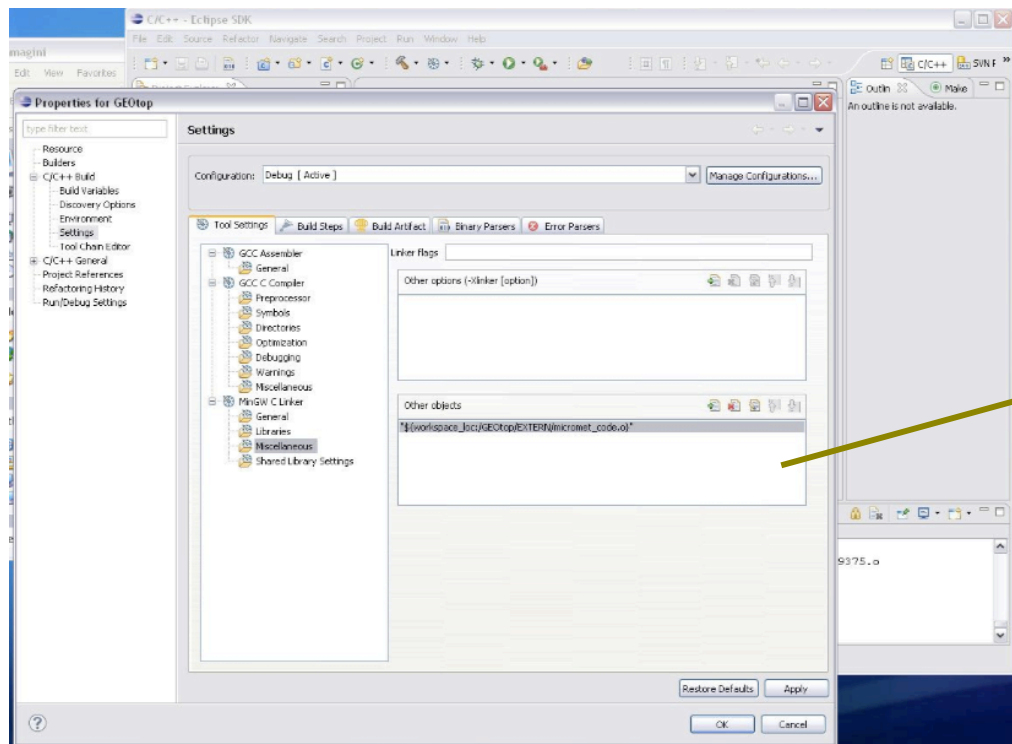
To create GEOTop c project

- Click on Workspace → GEOTop → EXTERN



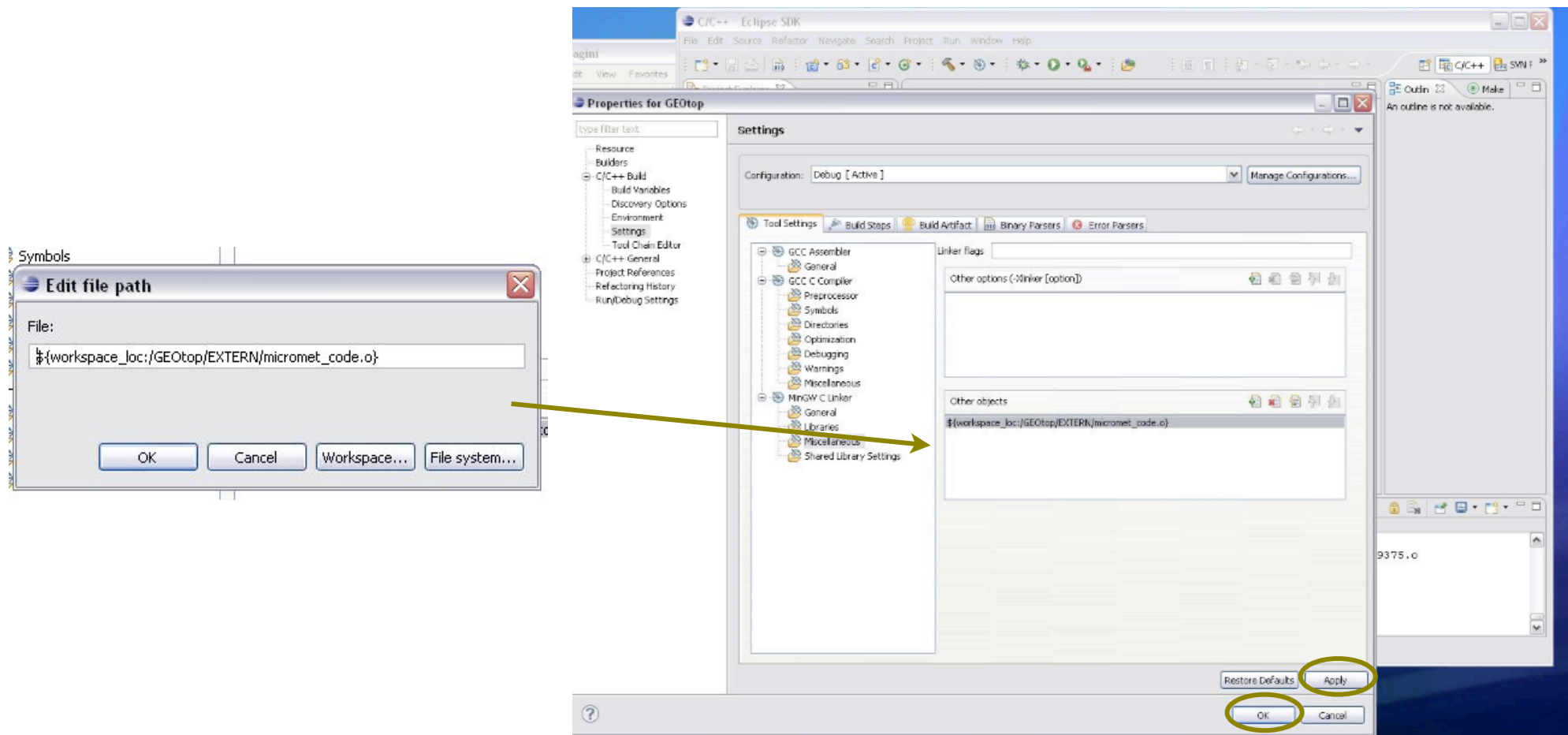
To create GEOTop c project

- BEWARE - Eclipse will put quotes around the name when you add it in.



To create GEOTop c project

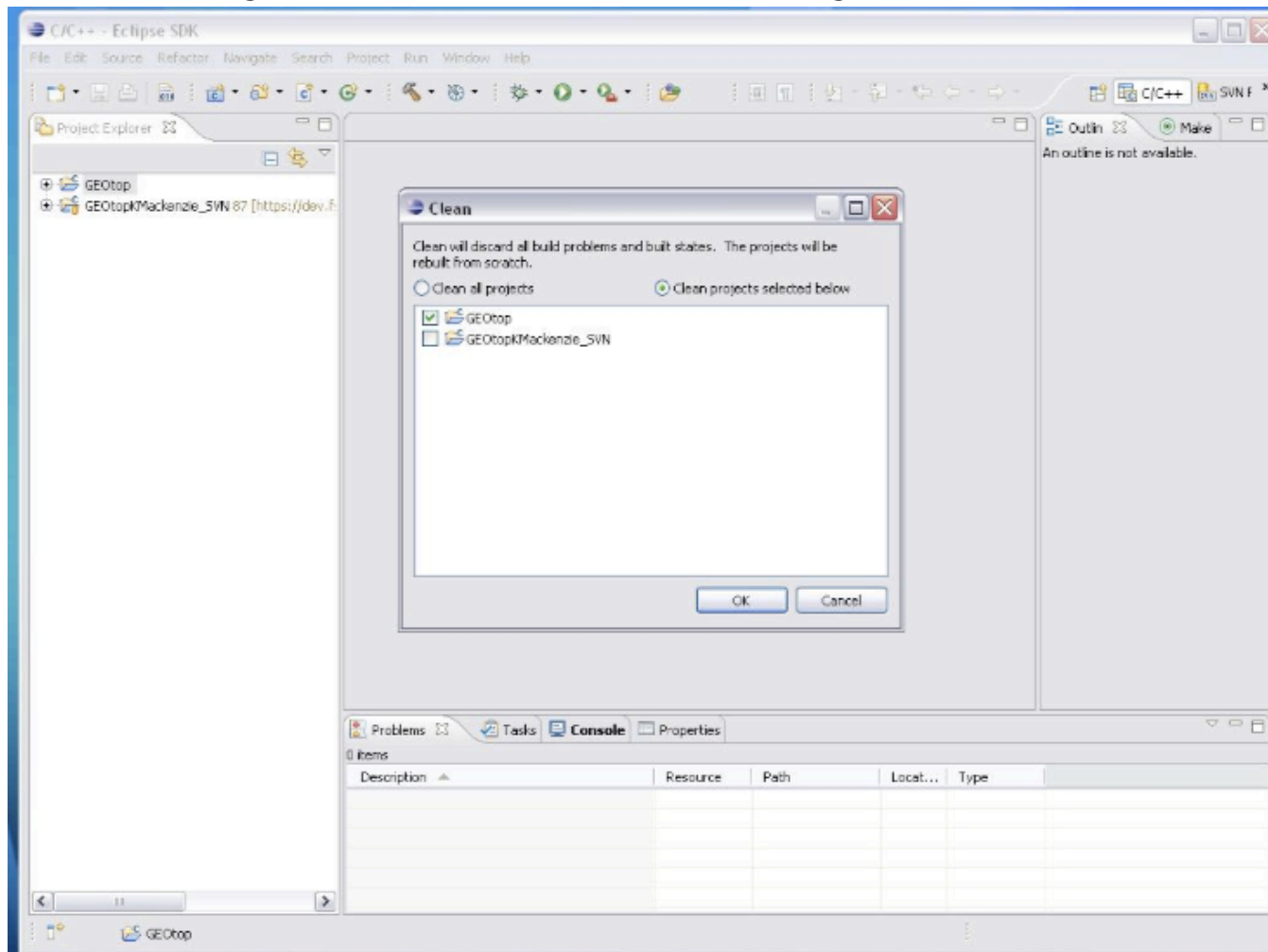
- Double click on the added object and remove the quotes.



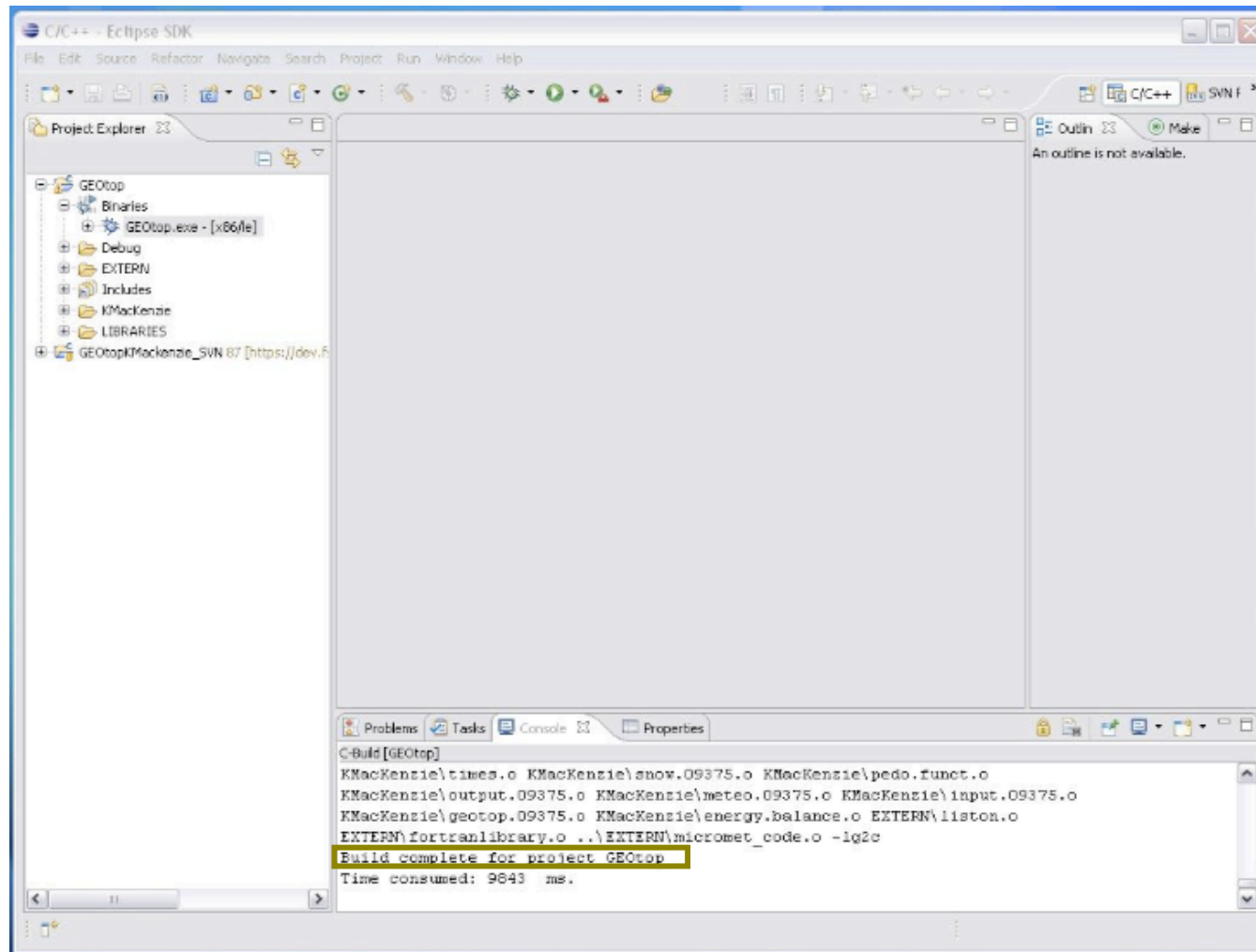
To compile GEOTop c project

To compile GEOTop c project

- In Eclipse from Project → clean → clean projects selected below → OK



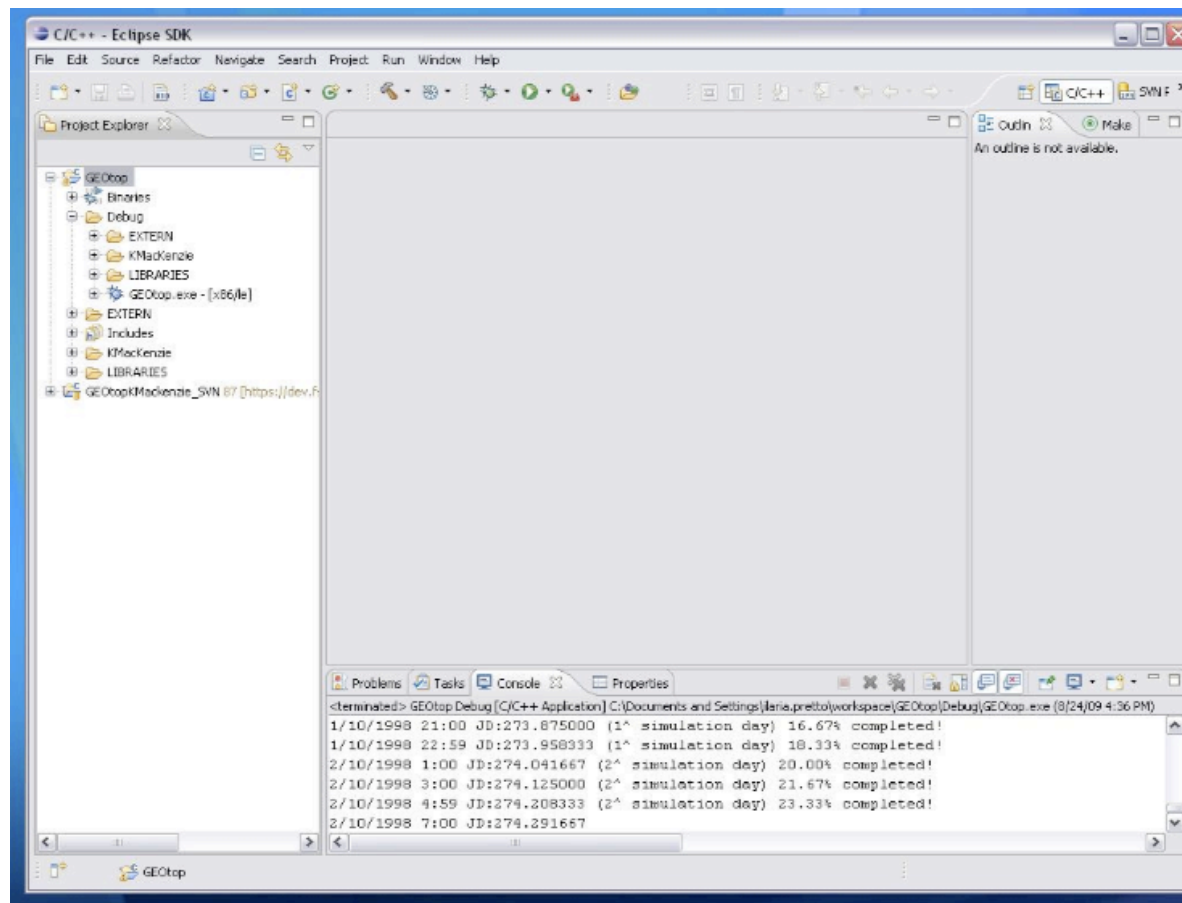
To compile GEOTop c project



To run GEOtop by command prompt

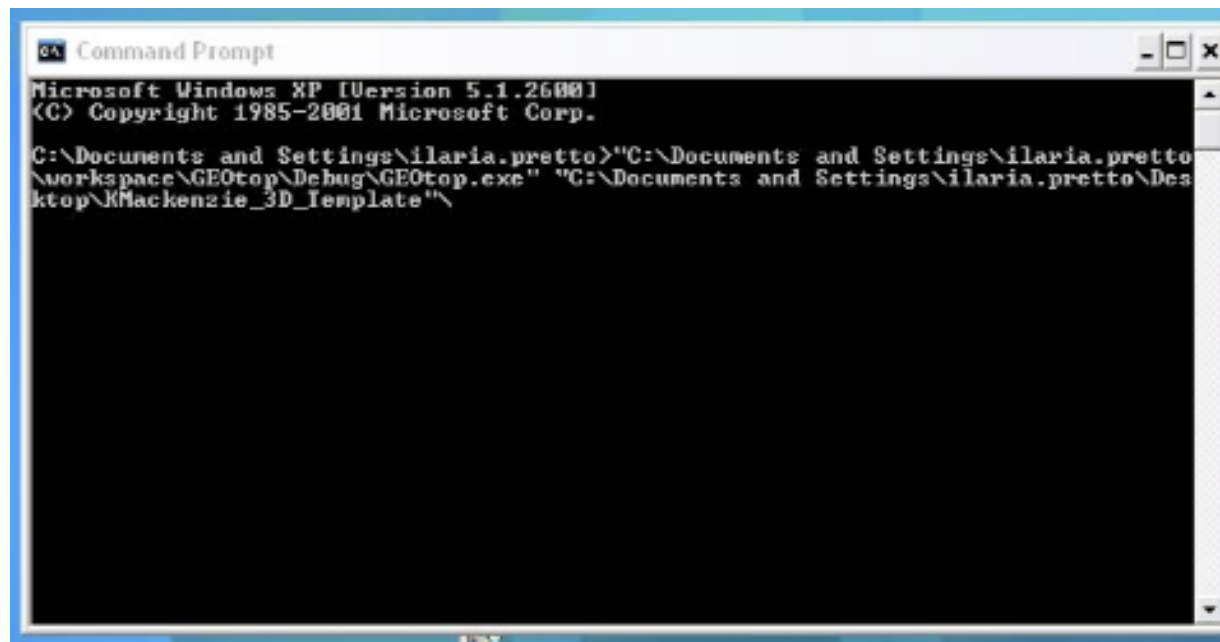
To run GEOTop by command prompt

- After to compile in the good way GEOTop.exe appear in Debug folder of the project



To run GEOTop by command prompt

- Open command prompt, to drag GEOTop.exe in command prompt;
- Get one space;
- To Drag in the command prompt the folder in which there are geotop input
- To give slash.



```
Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\ilaria.pretto>"C:\Documents and Settings\ilaria.pretto\workspace\GEOTop\Debug\GEOTop.exe" "C:\Documents and Settings\ilaria.pretto\Desktop\RMackenzie_3D_Template"
```

list-geotopusers@ing.unitn.it