

Glomosim Installation

Things Got Simpler!!! See Creativity Unleashed!

Dwarak

<http://www.dwarakrocks.blogspot.com>

Global Mobile Information System Simulator (GloMoSim) is a network protocol simulation software that simulates wireless and wired network systems. GloMoSim is designed using the parallel discrete event simulation capability provided by Parsec, a parallel programming language. GloMoSim currently supports protocols for a purely wireless network. GloMoSim is academic research version available for academic use only. Commercial GloMoSim Based Product is QualNet.

Glomosim installation just got much simpler!!!

About a week or a month back, our college seniors had organized a workshop/working session on Glomosim – Global Mobile information system Simulator – a popular wireless/wired simulator that is basically a command line simulator with a Parsec cum c compiler.

The hard part that we faced was the installation! We needed to install JAVA v1.2 and VB6 (installing newer versions of both JAVA and VB meant additional burden on top because newer versions of both the software packages do not have the extra advantage of having the environment variables added automatically to the system).

We were given VB6 that could have environment variables added automatically. But JAVA was newer and we had to manually add environment variables to the PC. As far the glomosim setup, we had no choice. We had to manually add the environment variables for the glomosim to work.

A lot of the participants of the workshop found this extremely tough. A significant time got wasted in instructing students as to how to set up environment variables and helping them. Newbies got very tired of repeated failures in setting the software up.

To overcome this, I have come up with a .exe setup that could make things easier.

INSTALLATION STEPS :

1. Before we proceed to the installation of Glomosim, you need to install two other softwares essential for glomosim to work.
 - Visual C++
 - Java JDK v1.2 or higher & Java JRE v1.2 or higher

Visual C++ from VB 6.0 package is recommended since, you need not worry about altering environment variables externally. If you prefer to go with a newer version of Visual Studio, then, here are the environment variable lists that you need to manipulate according to your installation package.

PATH : C:\Program Files\Microsoft Visual Studio\Common\Tools\WinNT;C:\Program Files\Microsoft Visual Studio\Common\MSDev98\Bin;C:\Program Files\Microsoft Visual Studio\Common\Tools;C:\Program Files\Microsoft Visual Studio\VC98\bin;

INCLUDE : C:\Program Files\Microsoft Visual Studio\VC98\atl\include;C:\Program Files\Microsoft Visual Studio\VC98\mfc\include;C:\Program Files\Microsoft Visual Studio\VC98\include;

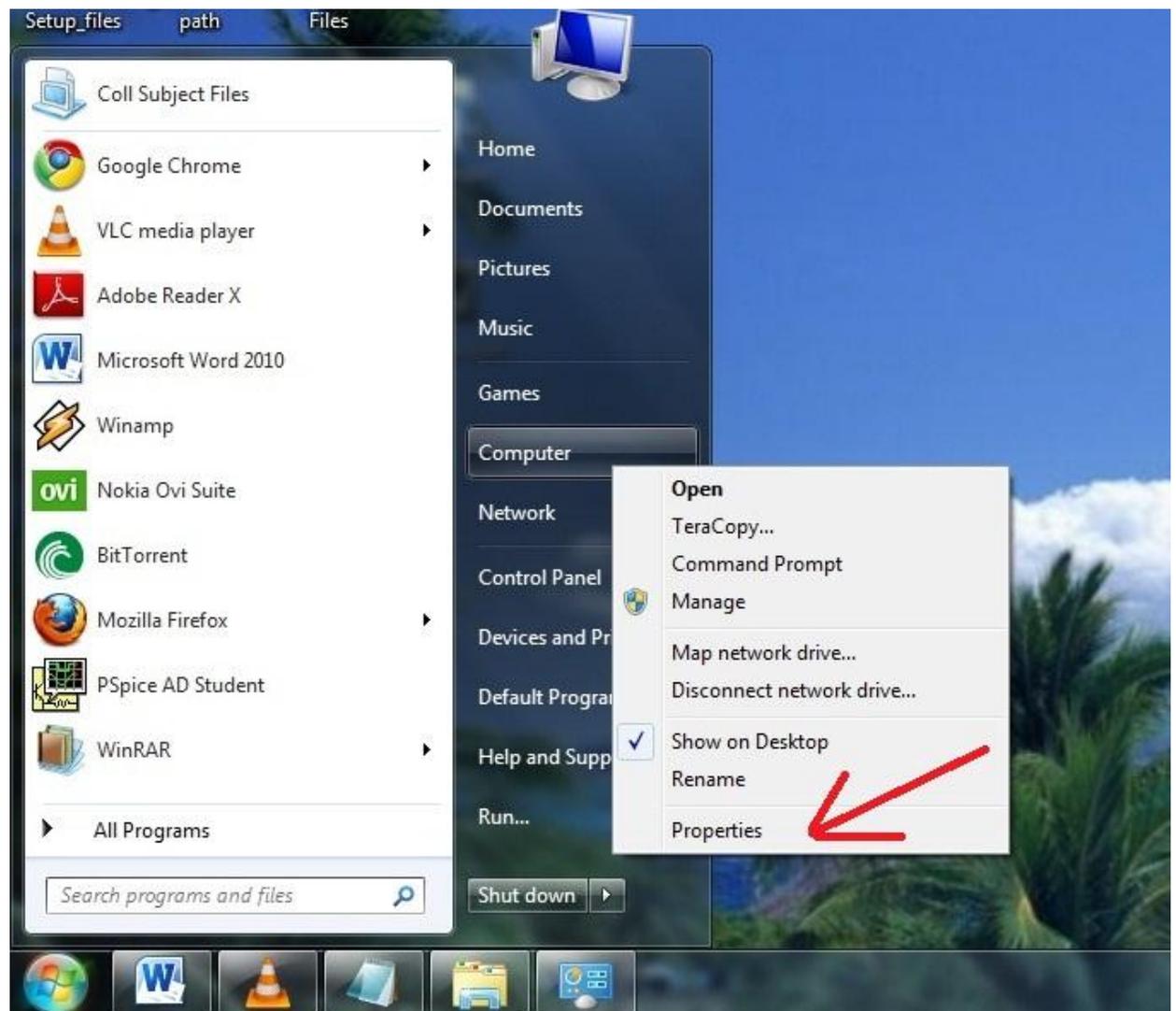
LIB : C:\Program Files\Microsoft Visual Studio\VC98\mfc\lib;C:\Program Files\Microsoft Visual Studio\VC98\lib

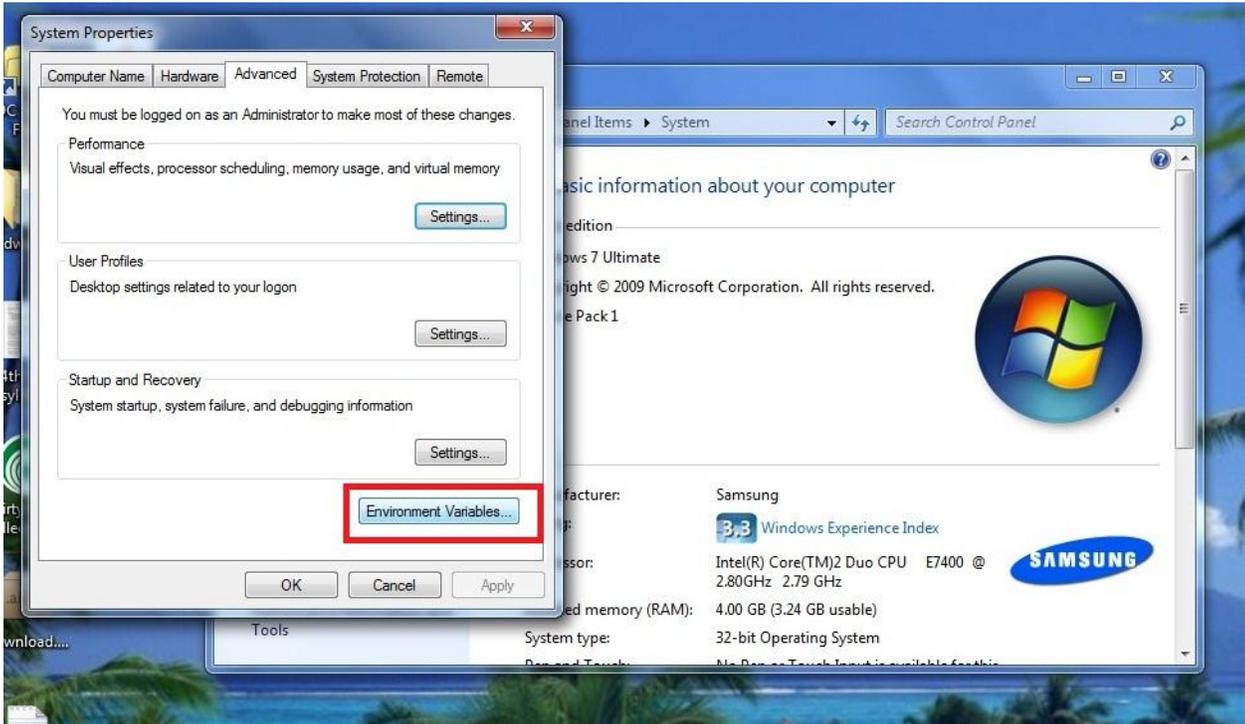
MSDEVDIR: C:\Program Files\Microsoft Visual Studio\Common\MSDev98

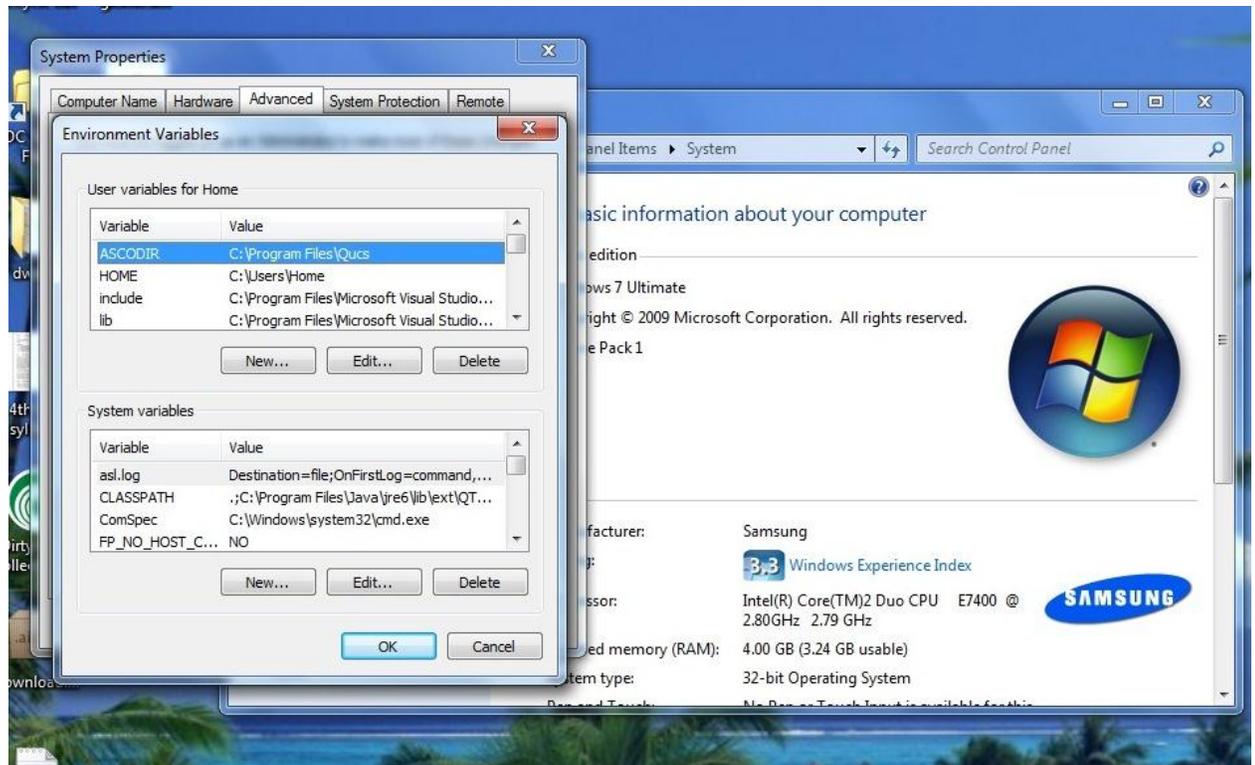
You can add environment variables here by Right click my computer→properties→advanced system settings→advanced→environment variables

All these files are being installed in C:

NOTE: DO THIS ONLY IF YOU WANT TO HAVE VISUAL STUDIO 7.0 OR ABOVE. IF YOU HAVE VISUAL STUDIO 6.0 (RECOMMENDED) DON'T DO THIS !







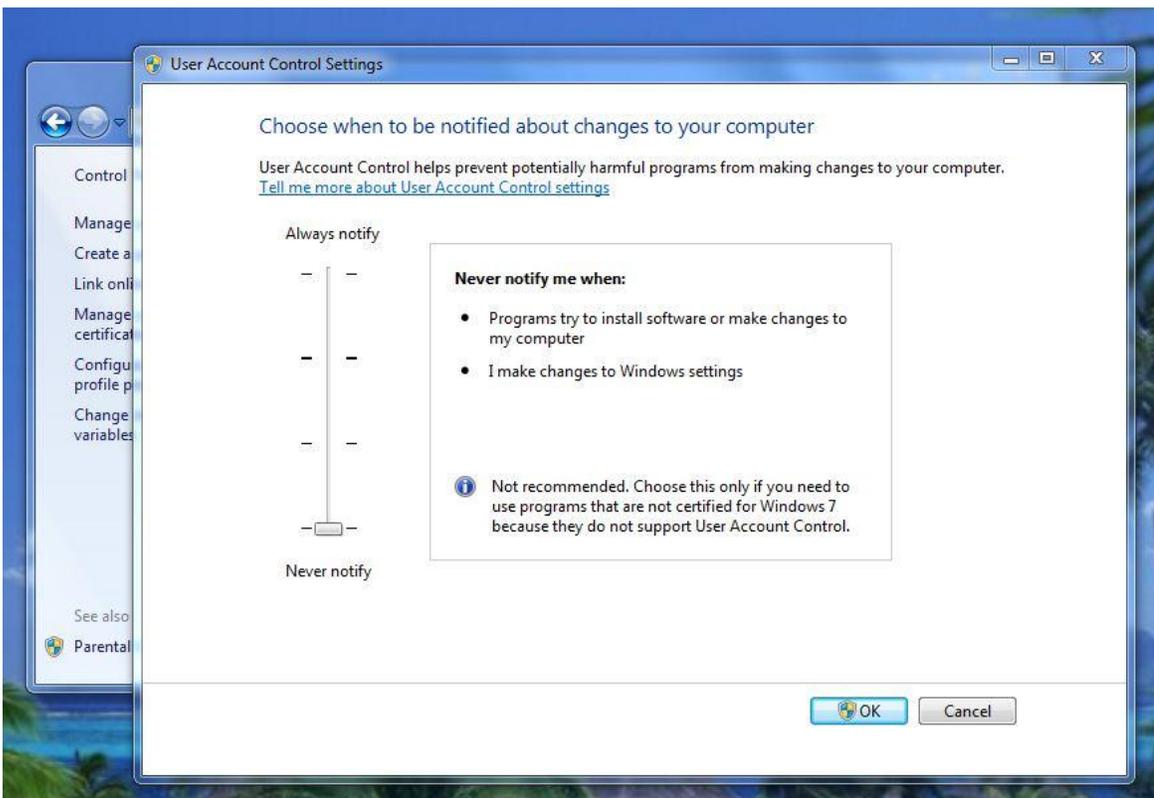
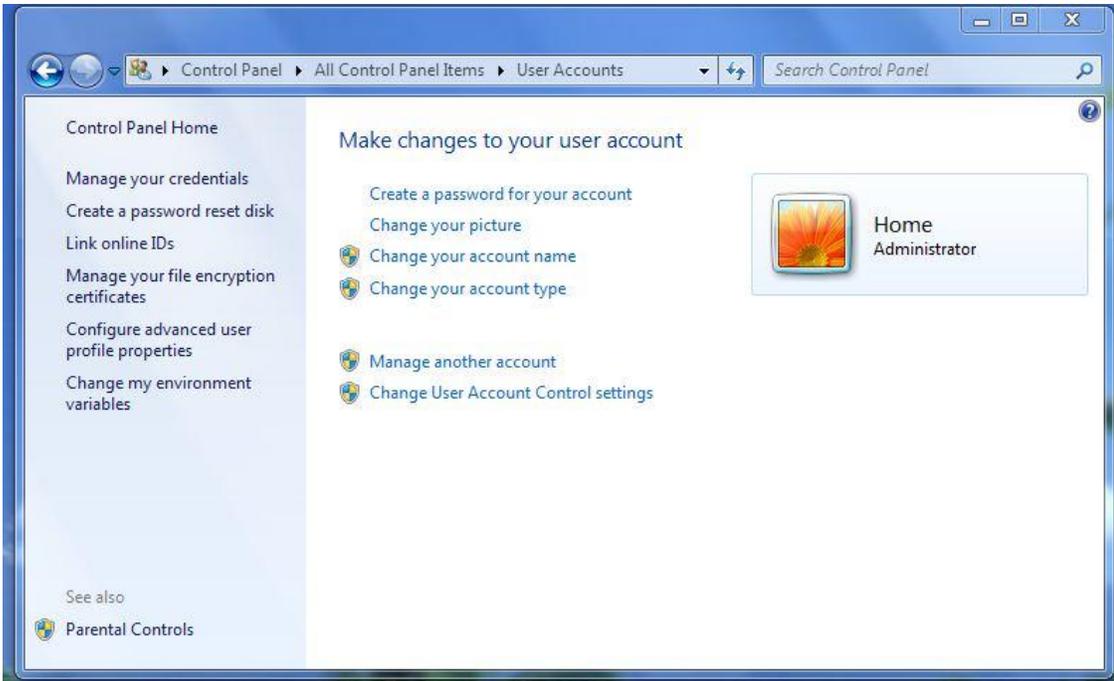
For the java part, download the latest 6.0 version at <http://www.oracle.com/technetwork/java/javase/downloads/index.html> (just Java JDK - the first option there.)

Install both Java and Visual Studio before you proceed further.

2. If you are using Windows Vista/Windows 7, you first need to disable the user account settings to 'Never Notify Me'. That is, you are trying to disable all the Security features of Windows that prevent you from making changes to it. This is essential for the setup to add the environment variables. If you are using Windows XP, you need not bother about this step. You may proceed to step 2.

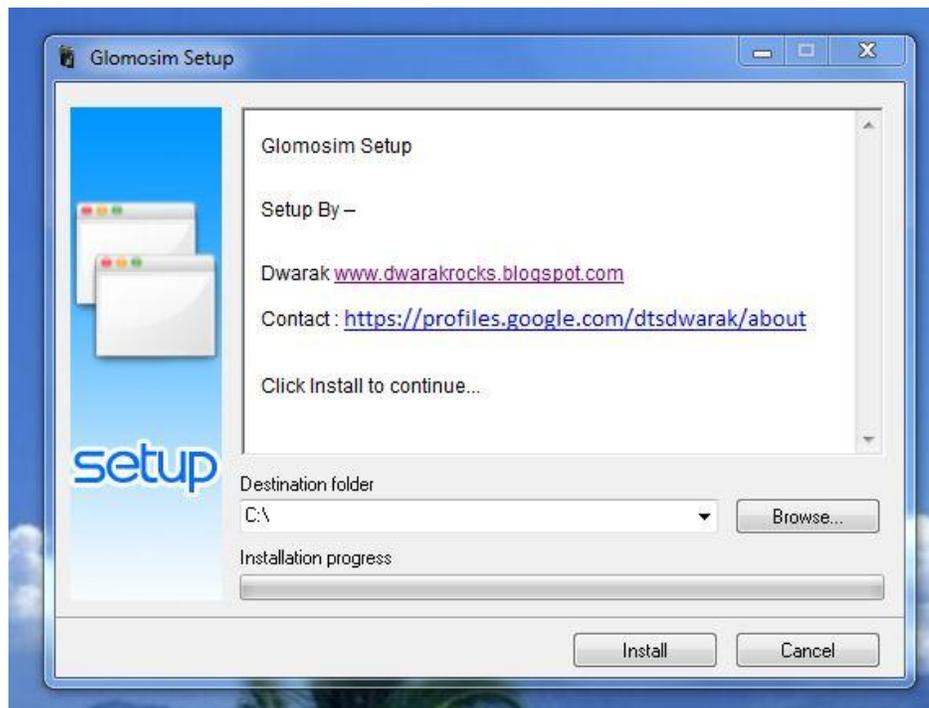
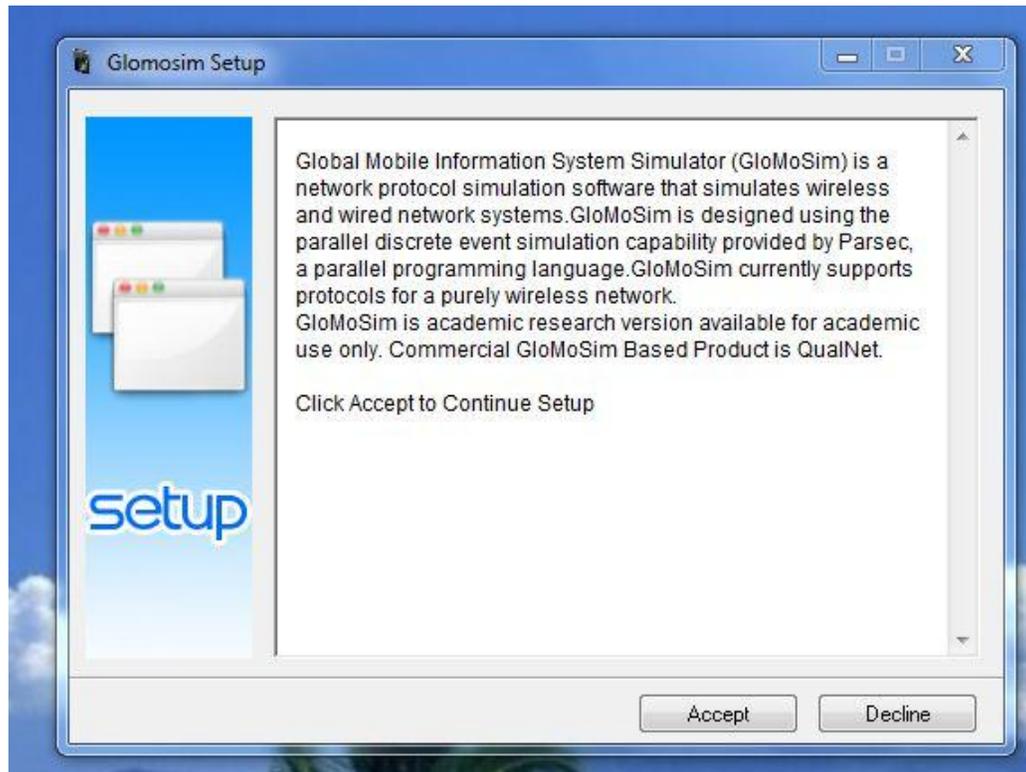
Now, how do you do this?

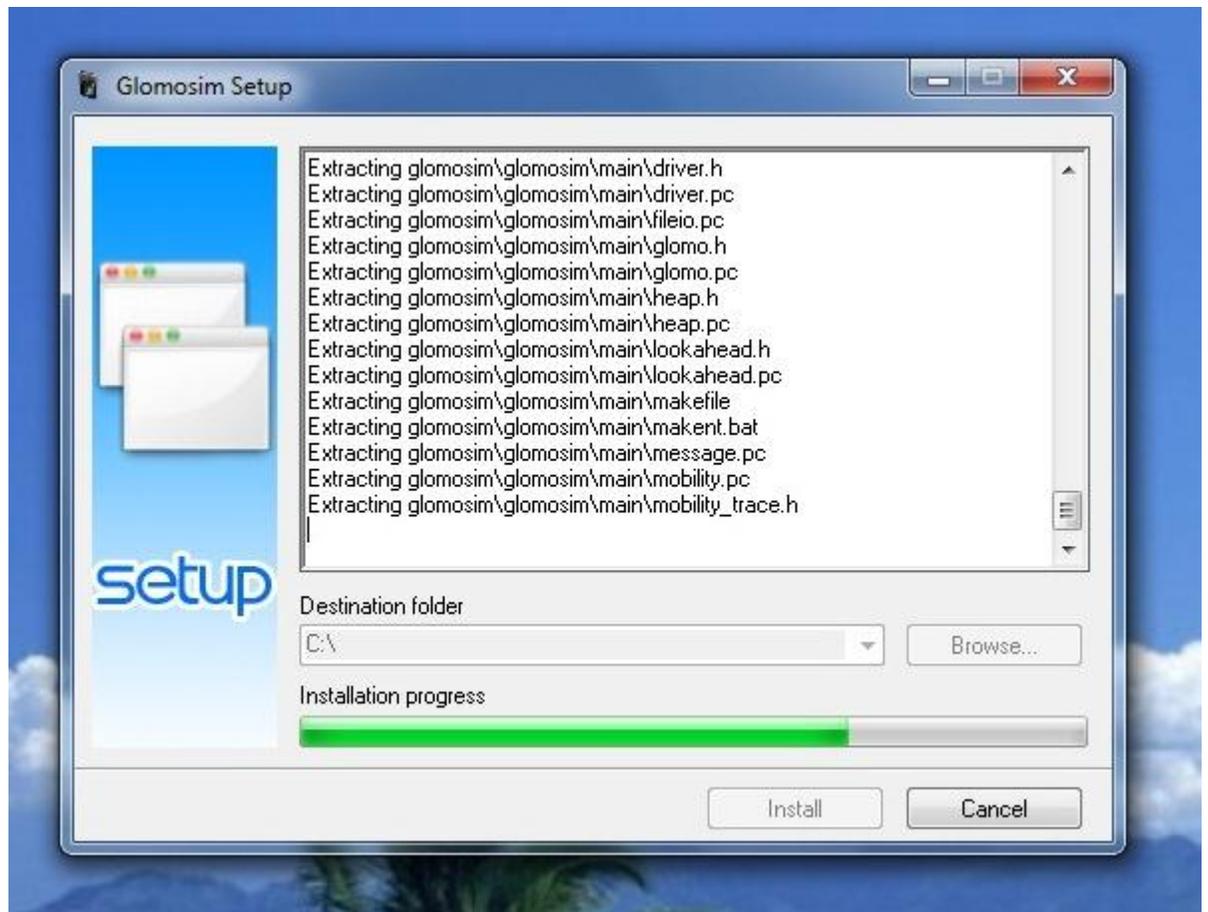
- Either, type UAC in Start Menu or goto Control Panel → User Accounts → Click 'Change User Account Control Settings' at the very bottom of the User Accounts Page.
- You'll get a screen very similar to this (Mine is Windows 7 Ultimate – SP 1)



YOU WILL HAVE TO RESTART WINDOWS TO COMPLETE THIS ACTION. ONLY THEN THE UAC SETTINGS GET SAVED.

3. Now, Run the Glomosim Setup as shown below





If you get a popup complaining of some compiling error, then either you have not turned off the UAC account settings or you have still not gone for a system restart from UAC setting change.

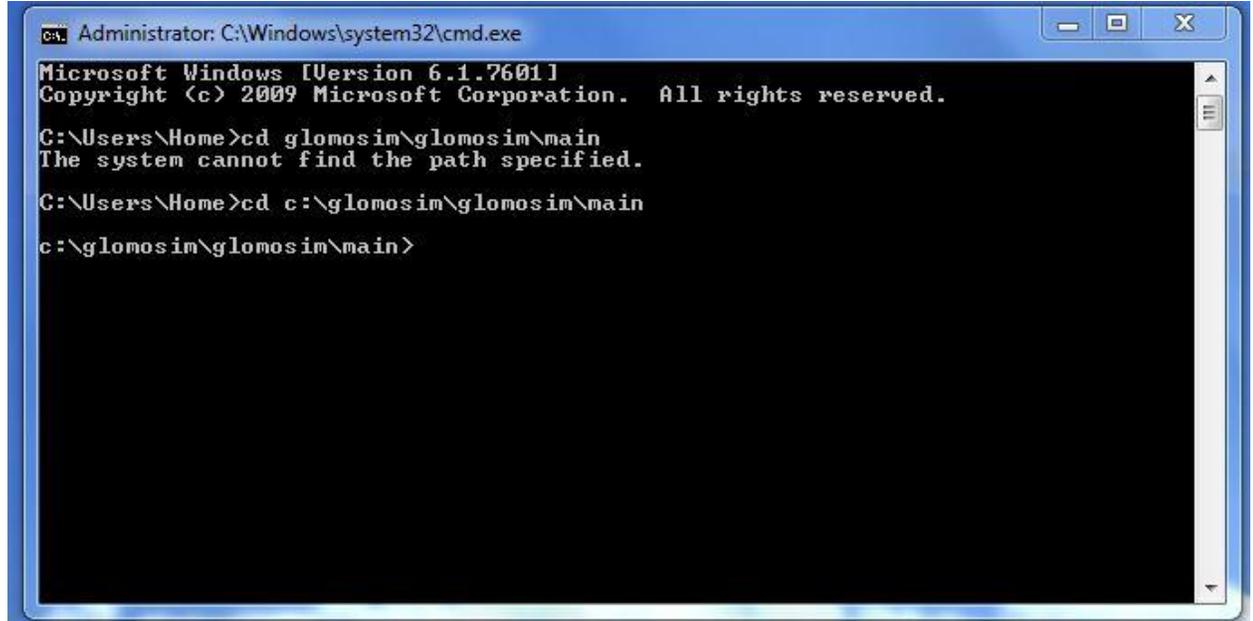
4. After this installation step, half your burden has got over.
5. Now, Click Run → type 'cmd'. You'll get command prompt window there.



A screenshot of a Windows command prompt window titled "Administrator: C:\Windows\system32\cmd.exe". The window shows the Microsoft Windows version 6.1.7601 copyright notice and the current directory path "C:\Users\Home>".

- There, type

'cd c:\glomosim\glomosim\main'



A screenshot of a Windows command prompt window titled "Administrator: C:\Windows\system32\cmd.exe". The window shows the Microsoft Windows version 6.1.7601 copyright notice. The user enters the command "cd glomosim\glomosim\main" and receives the error "The system cannot find the path specified.". The user then enters the command "cd c:\glomosim\glomosim\main" and the prompt changes to "c:\glomosim\glomosim\main>".

- Now, type **'makent'** . i.e., it will be like **c:\glomosim\glomosim\main>makent**

- A screen goes like this.

```

Administrator: C:\Windows\system32\cmd.exe - makent
atrix.pc
tmp-5956.c
tmp-5956-0.c

>call pcc -0x -I..\include\ -I..\radio\ -clock longlong -c ..\radio\radio.pc
tmp-3348.c
tmp-3348-0.c

>call pcc -0x -I..\include\ -I..\radio\ -clock longlong -c ..\radio\radio_accn
oise.pc
tmp-5844.c
tmp-5844-0.c

>call pcc -0x -I..\include\ -I..\radio\ -clock longlong -c ..\radio\radio_nono
ise.pc
tmp-4024.c
tmp-4024-0.c

>call pcc -0x -I..\include\ -I..\mac\ -clock longlong -c ..\mac\802_11.pc
tmp-2268.c
tmp-2268-0.c

>call pcc -0x -I..\include\ -I..\mac\ -clock longlong -c ..\mac\csma.pc
tmp-4884.c

```

- Now, type `cd ..\bin` and you will end up like `c:\glomosim\glomosim\bin>`

Now, type, `glomosim config.in`

* i.e., something like, `c:\glomosim\glomosim\bin>glomosim config.in`

```

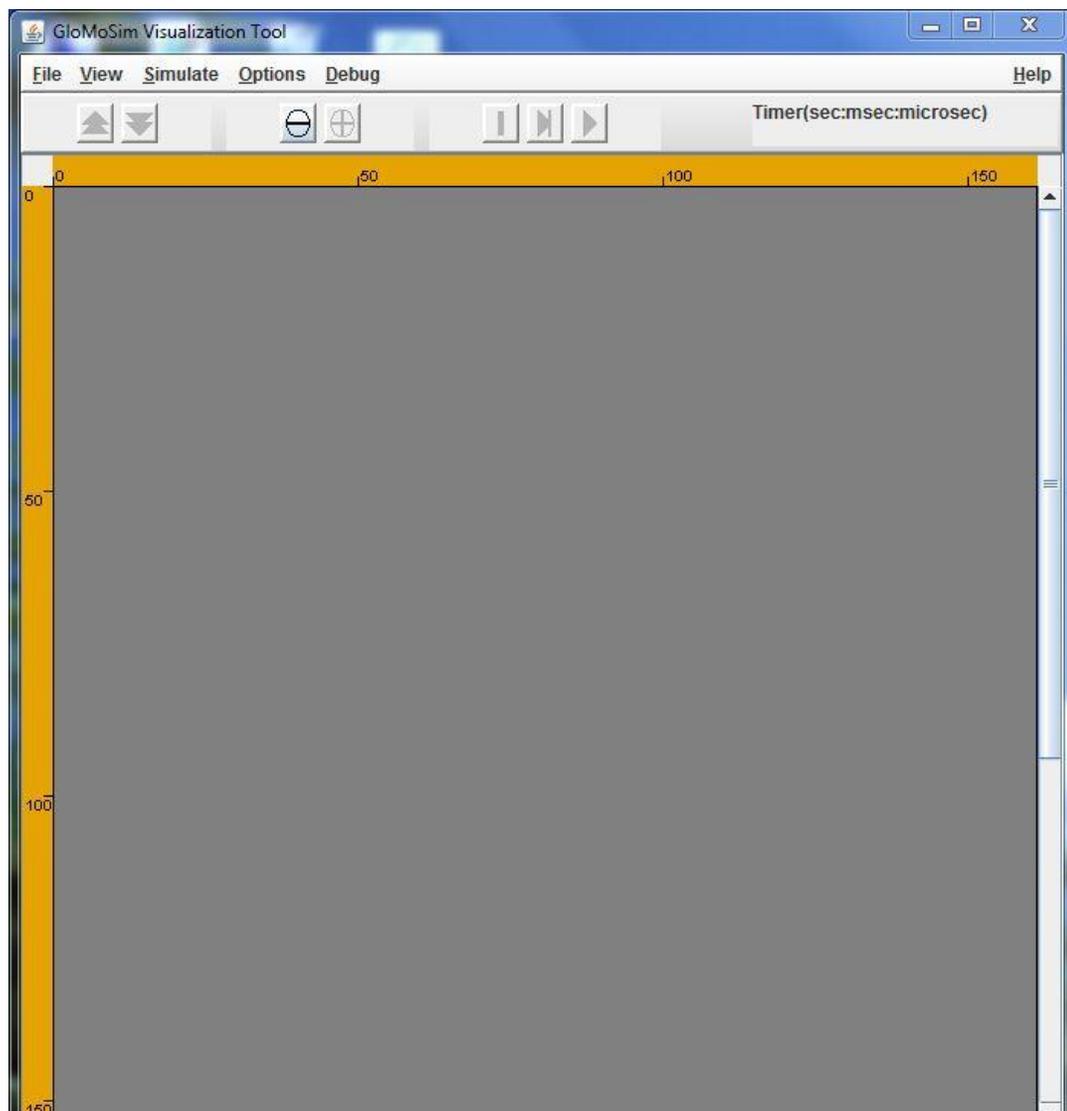
Administrator: C:\Windows\system32\cmd.exe

Current Sim Time[sl] = 756.003202254 Real Time[sl] = 0 Completed 84%
Current Sim Time[sl] = 765.003064375 Real Time[sl] = 0 Completed 85%
Current Sim Time[sl] = 774.023322262 Real Time[sl] = 0 Completed 86%
Current Sim Time[sl] = 783.044713021 Real Time[sl] = 0 Completed 87%
Current Sim Time[sl] = 792.000951318 Real Time[sl] = 0 Completed 88%
Current Sim Time[sl] = 801.010370516 Real Time[sl] = 0 Completed 89%
Current Sim Time[sl] = 810.019936587 Real Time[sl] = 0 Completed 90%
Current Sim Time[sl] = 819.007265386 Real Time[sl] = 0 Completed 91%
Current Sim Time[sl] = 828.017614770 Real Time[sl] = 0 Completed 92%
Current Sim Time[sl] = 837.008815110 Real Time[sl] = 0 Completed 93%
Current Sim Time[sl] = 846.006505914 Real Time[sl] = 0 Completed 94%
Current Sim Time[sl] = 855.030478574 Real Time[sl] = 0 Completed 95%
Current Sim Time[sl] = 864.052366162 Real Time[sl] = 0 Completed 96%
Current Sim Time[sl] = 873.064564290 Real Time[sl] = 0 Completed 97%
Current Sim Time[sl] = 882.072024056 Real Time[sl] = 0 Completed 98%
Current Sim Time[sl] = 891.081945395 Real Time[sl] = 0 Completed 99%
Execution time : 0.5400 sec
Number of messages processed : 4
Number of context switches occurred : 12
Number of Local NULL messages sent : 0
Number of Remote NULL messages sent : 0
Total Number of NULL messages sent : 0
NULL messages / Regular messages : 0.000

c:\glomosim\glomosim\bin>_

```

- You will get a screen like the one above. Congrats! You have successfully installed glomosim on your PC !
6. In order to continue with Optional Java Visualization tool, you need to configure Java tool. to do that, copy all the files in C:\glomosim\glomosim\bin to C:\glomosim\glomosim\java_gui.
 7. Now, go back to command prompt, and type '`cd c:\glomosim\glomosim\java_gui`' . Now, type `javac *.java`.
 8. Now, type '`java GlomoMain`' to visually see the results.



Download Glomosim.exe here : <http://ubuntuone.com/p/kXS/>