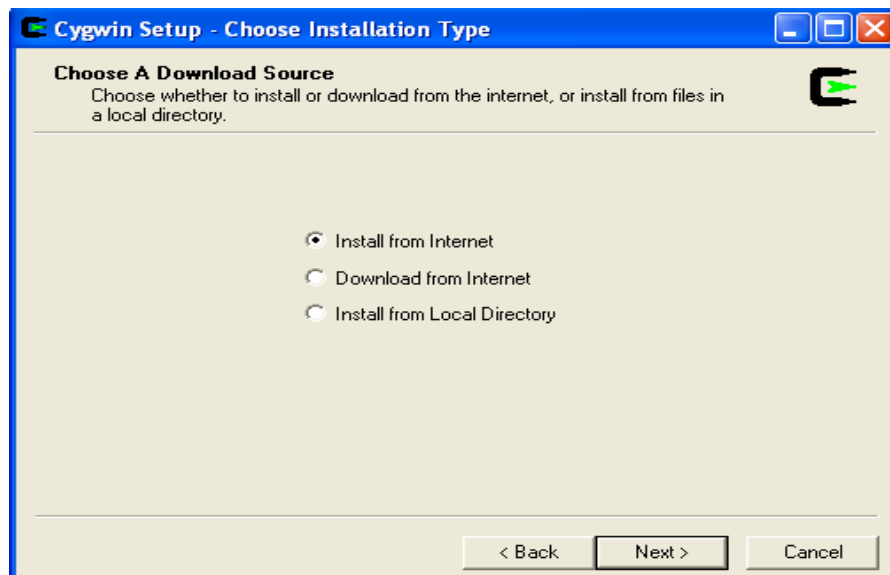Installation Guidelines for NS2 on Windows

1) Requirements
   a. Free disk space of 5GB required
   b. Minimum 256MB RAM suggested
2) Assumptions
   a. Windows installed in Drive partition "C"
3) Installation Instructions for CYGWIN
   a. Download CYGWIN using setup.exe from http://www.cygwin.com
   b. Run setup.exe

   c. There are two ways to install after this step :
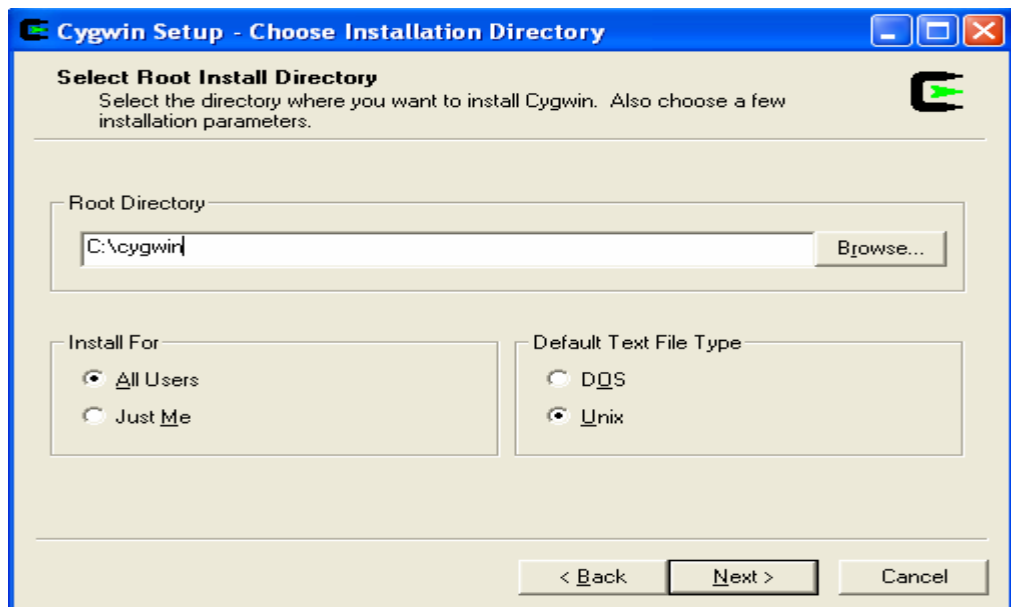   i. Install from Internet

This option is generally chosen, as everything is done automatically.
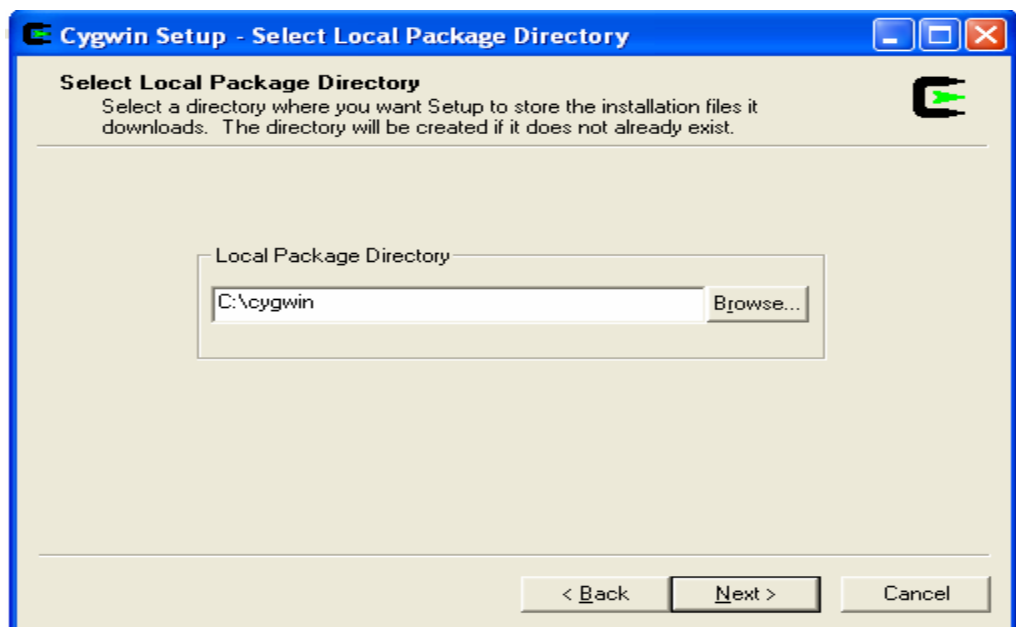
ii)   Download and then Install

This option is desired when needed to install on large no. of machines.
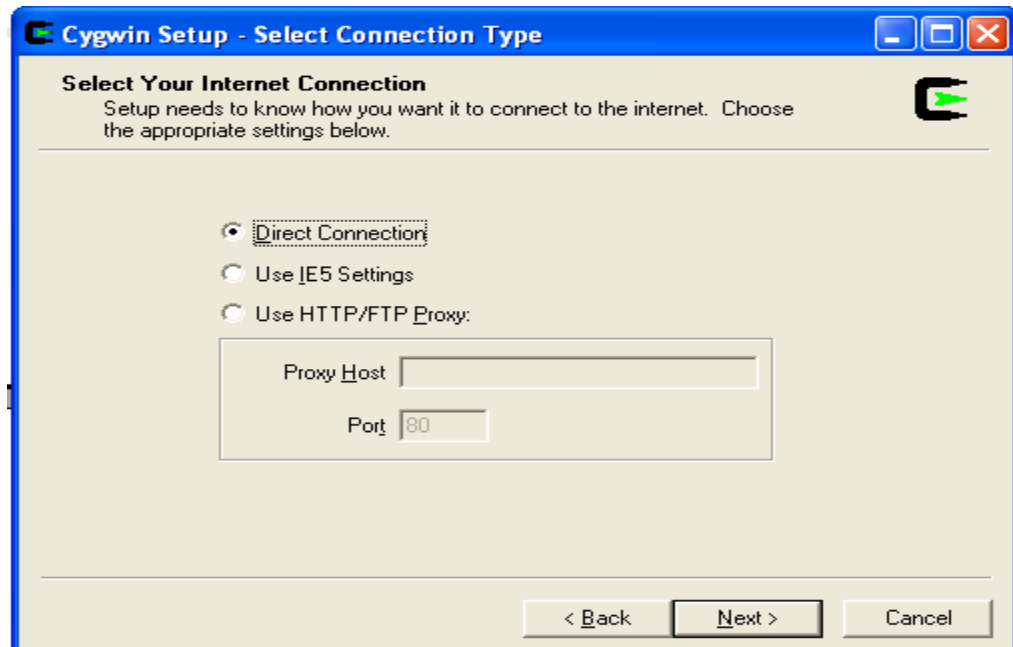
d. Selecting Root directory where CYGWIN is installed

Recommended root directory path is "C:\cygwin".

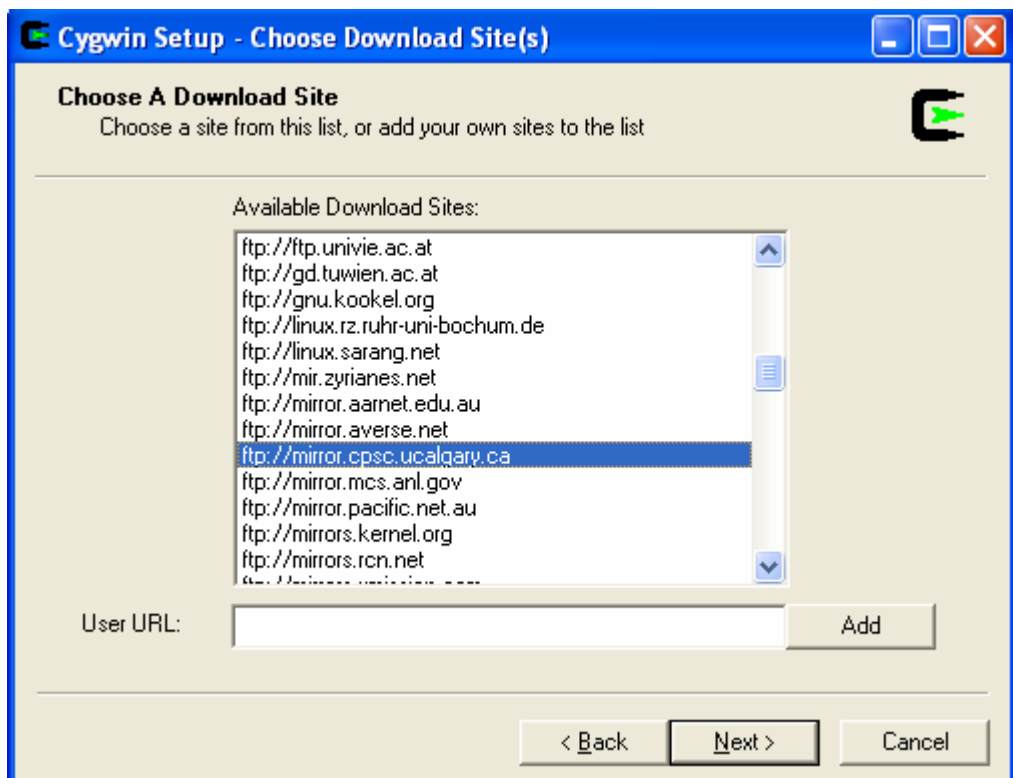e. Selecting directory where installation files are stored

f. Selecting connection to internet : Direct connection preferred
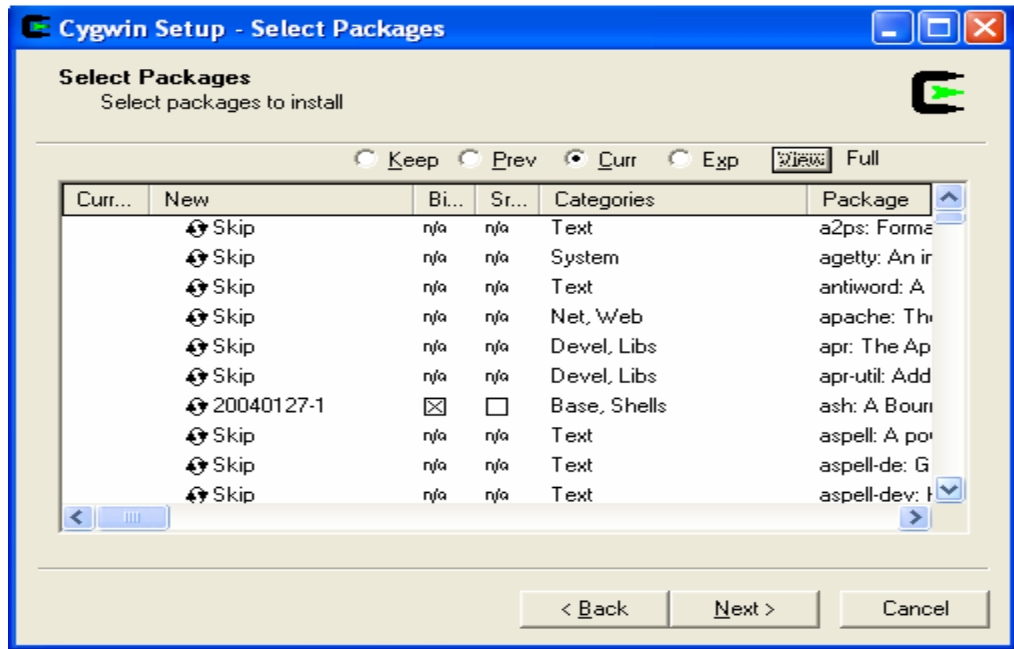

g. Selecting Mirror site to download cygwin

Select one of the mirror site , generally preference is made to site that's near to download location.
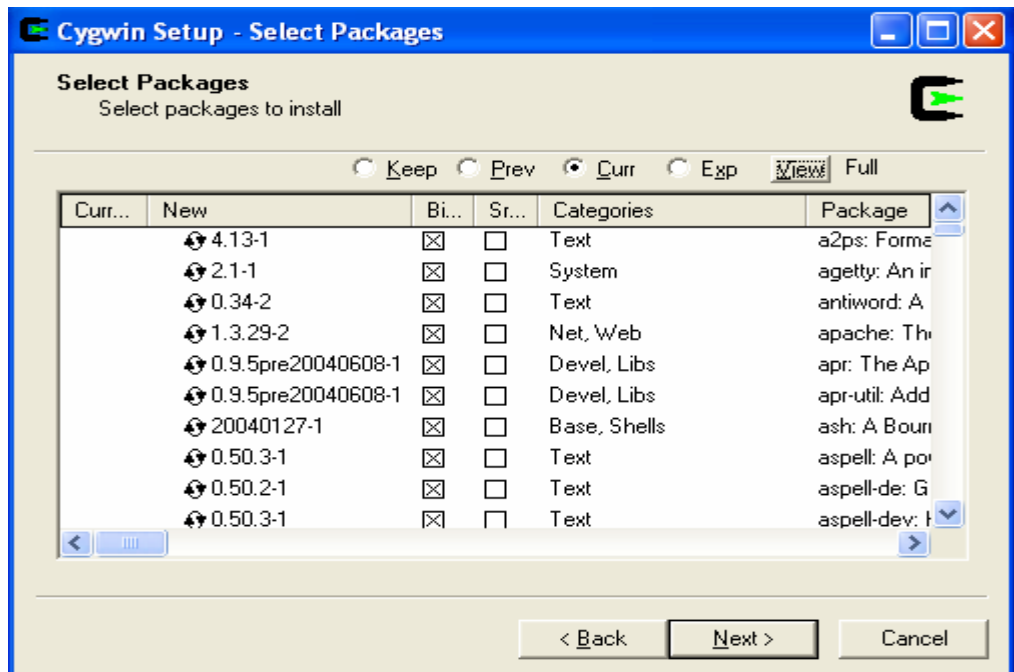
h. Selection of packages to install

Since CYGWIN has lot of packages , its desirable to install all packages.

In order to achieve this , Click view button , until it shows "full" .

In order to make all packages installed, click the each of "skip" entry. After this step the installation window looks like this.

Just click "Next" to make cygwin installed.

4) Installation Instructions for Network Simulator (NS-2)
   a. Download NS-2 installation file from : http://www.isi.edu/nsnam/dist/ns-allinone-2.27.tar.gz
   b. Save the above file in : C:\cygwin\
   c. Now open the cygwin window by clicking the cygwin shortcut on the desktop
   d. Inorder to extract the NS installation file , go to the location where the installation file is stored , by following commands:

   > cd c:
   > cd cygwin/

   e. Extraction of files :

   Extract the installation files by the following commands:

   > gzip –d ns-allinone-2.27.tar.gz
   > tar –xvf ns-allinone-2.27.tar

   by the above commands there will be directory created in the name of ns-allinone-2.27

   f. Installing the packages from extracted files :

   Commands to be executed :

   > cd ns-allinone-2.27

   after the above step :

   > ./install

   This command will initiate the process of installing NS2.

   IMP NOTE: if in the process , you get a prompt saying " package **diff** missing do u want to proceed , press Y for proceeding or N for exiting.

   If all the above steps are followed there should not be any error in installing NS2. if in any case if u get an error message saying that package missing , it means that those packages are skipped at the time of installation so u have to install those packages by doing setup again .

   g. Validating NS2:

   Move to the folder containing NS-2(i.e. ns-2.27) and then type the following command

./validate

This will test the installation of NS2 with the predefined examples.

NOTE (IMP):

Common errors and guidelines:

1) its always preferred to install cygwin as a normal user.
2) Check for display setting using at the prompt:
          startx

This will open a Xserver window. Now open another instance of cygwin and

ERRORS:

2.1) While testing a script : if the following error comes :

          bash::ns:: command not found ::

          No need of .bashrc file update.

          implies **~/.bash_profile** file isn't read or not configured.

          For which : add the following to .bash_profile and type

                    Source .bash_profile

```
export NS_HOME=/home/XXX/ns-allinone-2.27/
export PATH=$NS_HOME/tcl8.4.5/unix:$NS_HOME/tk8.4.5/unix:$NS_HOME/bin:$PATH
export LD_LIBRARY_PATH=$NS_HOME/tcl8.4.5/unix:$NS_HOME/tk8.4.5/unix:\
$NS_HOME/otcl-1.8:$NS_HOME/lib:$LD_LIBRARY_PATH
export TCL_LIBRARY=$NS_HOME/tcl8.4.5/library


for example here is a sample ".bash_profile" file ,

export NS_HOME=/cygdrive/c/cygwin/ns-allinone-2.27/
export PATH=$NS_HOME/tcl8.4.5/unix:$NS_HOME/tk8.4.5/unix:$NS_HOME/bin:$PATH
export LD_LIBRARY_PATH=$NS_HOME/tcl8.4.5/unix:$NS_HOME/tk8.4.5/unix:\
$NS_HOME/otcl-1.8:$NS_HOME/lib:$LD_LIBRARY_PATH
export TCL_LIBRARY=$NS_HOME/tcl8.4.5/library
```
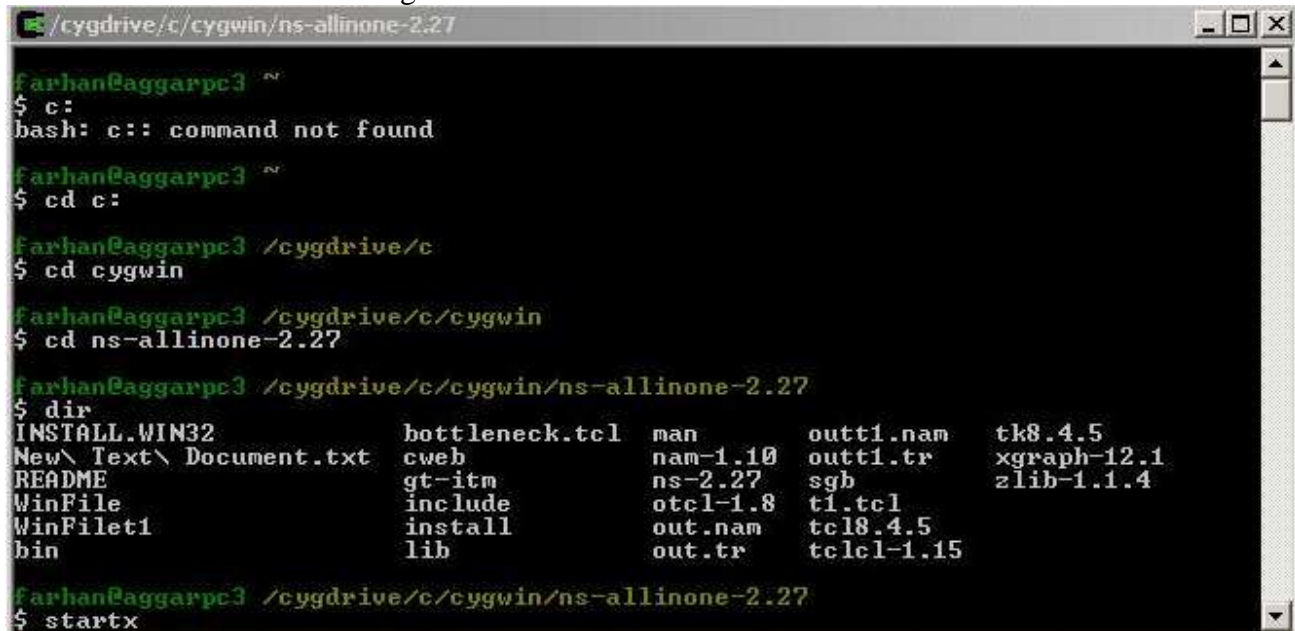
Standard working principles for NS:

Step 1: Open CYGWIN bash prompt
Step 2: go to location of TCL file
Step 3: type startx
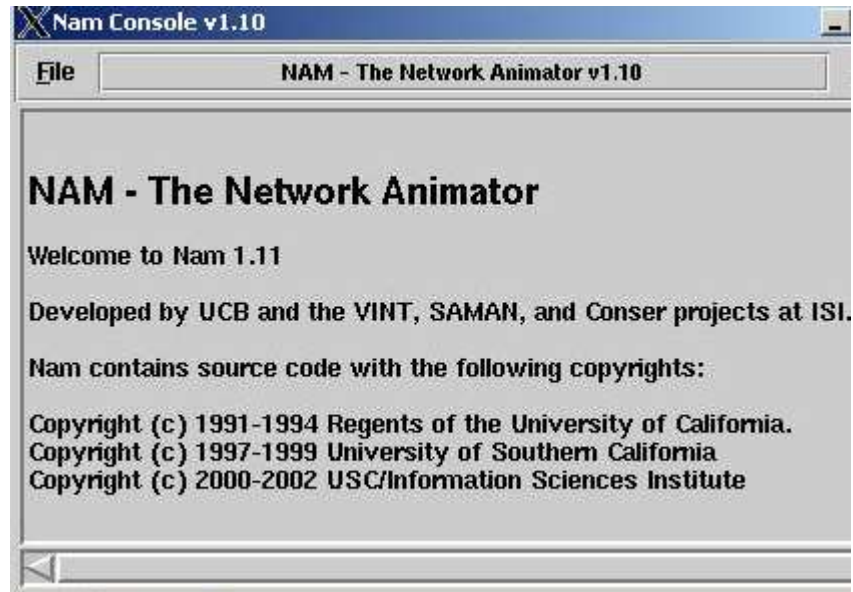
Then u will find the following screen shot.

once the above command "startx" is entered. The following window is opened

do all the operations in the above window. Like compiling ur tcl scripts etc.

NAM - The Network Animator

Welcome to Nam 1.11

Developed by UCB and the VINT, SAMAN, and Conser projects at ISI.

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Copyright (c) 2000-2002 USC/Information Sciences Institute

This implies that the display variable is working.

For any further queries , please contact me at reddy9@uwindsor.ca .