

CONFIGURE NS-2 WITH ECLIPSE IN LINUX

OCTOBER 18, 2009 KARTHIK SANKAR 20 COMMENTS

For most users of NS2, it would be easier if they can use a popular IDE to work with the files. Here are the step by step instructions I followed to set up NS-2.34 with Eclipse 3.5 in Ubuntu Linux.

In older versions of Eclipse, the settings might be slightly different.

I have compiled the following steps after running into various problems and errors with the setup, and solving them all. So I hope the setup will be smooth for you.

Setting up Eclipse:

1. Download [Eclipse SDK](#)
2. Extract the SDK to a folder
3. Open Eclipse
4. Go to Help -> Install New Software. In the Work With bar type this:
<http://download.eclipse.org/tools/cdt/releases/galileo>
5. Choose CDT Main Features and CDT Optional Features. Install them.
CDT stands for "C/C++ Development Tooling"
6. If you do not have a working internet connection in the system you have installed Eclipse, instead of steps 4 and 5, download the CDT from the above mentioned site. Then move to Install New Software (see step 4)
-> Add and add the archive downloaded.

Installing NS-2

1. [Download](#) NS-2
2. Extract NS-2 to a folder, i.e. /home/username/ns-allinone-2.34
3. Edit Makefile:
 - Open ".../ns-allinone-2.34/ns-2.34/Makefile.in" and
 - Add these lines anywhere near the top of the file:CCOPT = -g
DEFINE = -DNDEBUG
DEFINE = -DDEBUG
 - Navigate to .../ns-allinone-2.34/ns-2.34 and run "./configure"
4. Navigate to the NS-2 folder using terminal and type ./install
5. Also, follow the instructions are displayed at the end of a successful installation. These instructions are to modify the PATH variable and other environment variables as needed.

Adding NS-2 as a Project in Eclipse

1. Open Eclipse
2. Set the workspace as the ns installation path(/home/username/ns-allinone-2.34) by selecting File -> Switch Workspace
3. Choose File -> New -> Project -> C++ Project
4. Select Project Type as Makefile Project -> Empty C++ Project.
Toolchains: Linux GCC
5. Enter Project Name as ns-2.34
6. Uncheck "Use default location" then browse to the directory NS-2 source directory (.../ns-allone-2.34/ns-2.34)
7. Select "Next" and "Finish."
8. From the workspace, Selecting the NS-2 Project and choosing Project -> Build All should not give Error.
9. Running the project must open the console with the NS-2 prompt, %

Setting Debug Configuration:

1. Select Run -> Debug Configurations

2. Choose C/C++ Application. Type in any name.
 3. Under the Main tab, Choose the following:
Project as ns-2.34.
C/C++ Application as ns. (Search Project and Choose this)
 4. Under the Debugger tab, choose GDB Debugger. Uncheck the “Stop on startup at” option.
 5. Apply and Debug.
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Update from Readers: Changes to be made in Makefile.in file:

Add -g to the line `CCOPT = @V_CCOPT@`

`CCOPT = @V_CCOPT@ -g`

Add `-DNDEBUG -DDEBUG` to the end of the following line:

`DEFINE = -DTCP_DELAY_BIND_ALL -DNO_TK @V_DEFINE@ @V_DEFINES@ @DEFS@-
DNS_DIFFUSION -DSMAC_NO_SYNC -DCPP_NAMESPACE=@CPP_NAMESPACE@-
DUSE_SINGLE_ADDRESS_SPACE -Drng_test -DNDEBUG -DDEBUG`

Special thanks to *Ella Taha* for notifying me about the correction!

Update:

I wrote this post many years ago, and I have since then moved away from using NS-2.

Here is a relatively recent post by Erlend that might be of help: [Using ns-2 with Eclipse](#)

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