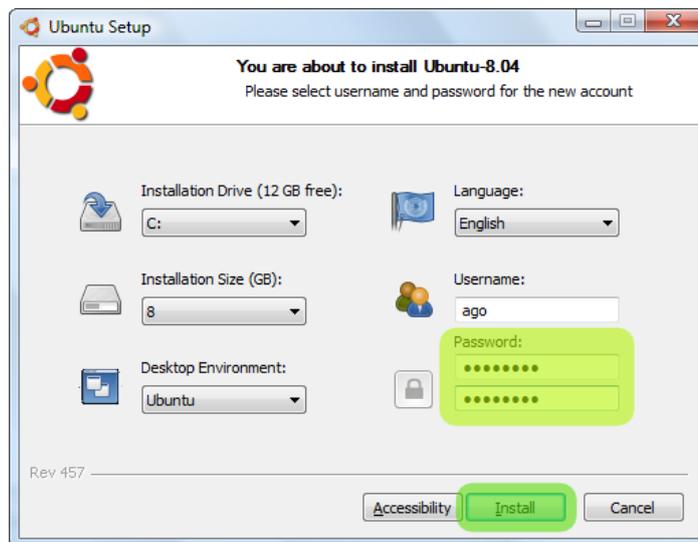


# How to configure Eclipse with NS3 on Ubuntu 10.10

## 1. Download Ubuntu 10.10:

You can install both windows and ubuntu together without making ubuntu virtual, this can be easily done using Wubi software. Wubi is an officially supported installer for Windows users that allows ubuntu to be installed and uninstalled safely as with any other windows application.

1. Download Ubuntu from: <http://www.ubuntu.com/download/ubuntu/download>
2. Download Wubi from: <http://www.softpedia.com/get/System/Boot-Manager-Disk/Wubi.shtml>
3. Put Ubuntu iso and latest wubi in same folder, double click wubi and this window will appear:

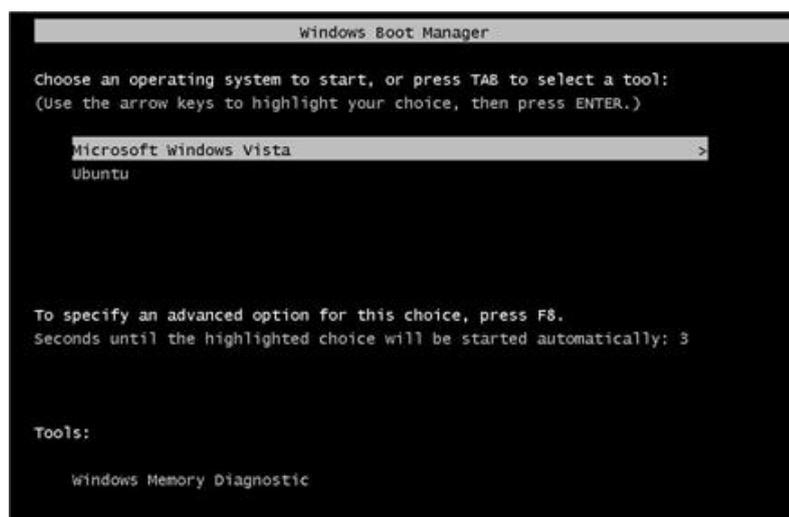


1 Select a new password

2 Click Install

3 There is no three

4. Follow the guide as shown in picture, after its installation, restart and it will prompt you at startup that whether to start ubuntu or windows like the picture below:



## 2. Download Eclipse for C++ developers:

Download the suitable package for your ubuntu version from: <http://www.eclipse.org/downloads/>

NOTE: you can know whether your ubuntu is 32-bit or 64-bit by executing the command "uname -m".

## 3. Install JRE 6 and JDK 6

You can add Personal Package Archives (PPA) in Ubuntu via command line. Both Java Runtime Environment (JRE) and Java Development Kit (JDK) can be installed this way.

Open terminal window and provide the following commands:

Install JRE:

```
sudo add-apt-repository ppa:ferramroberto/java
sudo apt-get update
sudo apt-get install sun-java6-jre sun-java6-plugin
```

Install JDK:

```
sudo apt-get install sun-java6-jdk
```

## 4. Download NS3 using Mercurial

Mercurial is a fast, lightweight Source Control Management system designed for the efficient handling of very large distributed projects. You can download NS3 using mercurial with one of the following methods:

### ✓ Using command window:

Install it using the following command:

```
sudo apt-get install mercurial
```

Go to folder where you want to download NS3, and execute the following command:

```
hg clone http://code.nsnam.org/ns-3-dev
```

### ✓ Using eclipse:

- ❖ Go to help → software update
- ❖ Click on available software
- ❖ Click on add a site
- ❖ Add <http://cbes.javaforge.com/update> , then click on mercurialeclipse, check the box and click on install
- ❖ Go to File->Import->Mercurial->Clone repository using mercurial
- ❖ It is enough to put just one parameter: URL in form  
URL: "<http://code.nsnam.org/ns-3-dev>"

## 5. Configure WAF Builder and run from Eclipse

- ✓ Convert the project ns-3-dev (that is installed in previous step) to C++ project: right click on project → Convert to C++ project
- ✓ Go to Run → External tool configuration → New
- ✓ Location should be the location to waf, in my case: "/home/user/workspace/ns-3-dev/waf"
- ✓ Working directory should be the directory where waf exists: "/home/user/workspace/ns-3-dev"
- ✓ In Arguments textbox, provide:

```
--run "${string_prompt}"
```

This argument will be the name of ns3 program from the working directory.

- ✓ Now when you try to run a program, a dialog box should pop-up asking for the input arguments to waf (program name) and your program should run
- ✓ Only first time this external run tool is started, complete project will be built. Next time will only start the application

## 6. Configure the debugger

- ✓ Click on the "Debug Configurations" option under the "Run" menu
- ✓ Create a new configuration and choose a name for it
- ✓ Click on the "Browse" button under the "Project" section and select the project
- ✓ Click on the "Search Project" button under the "C/C++ Application" section and type the name of the application
- ✓ Go into the "Environment" tab and click on "New" to create a new variable
- ✓ Type under the Name field "LD\_LIBRARY\_PATH"
- ✓ Type under the Value field "\${workspace\_loc:ns-3-dev}/build/debug"
- ✓ Be sure the "Append environment to native environment" is selected
- ✓ Click on Apply and on Debug if you want to immediately debug the application

---

### [References]:

- <http://www.eclipse.org/downloads/>
- <http://compixels.com/6805/how-to-install-java-in-ubuntu-11-04-natty-narwhal-via-ppa>
- <https://help.ubuntu.com/community/Mercurial>
- [http://www.nsnam.org/wiki/index.php/HOWTO\\_configure\\_eclipse\\_with\\_ns-3](http://www.nsnam.org/wiki/index.php/HOWTO_configure_eclipse_with_ns-3)
- <http://www.anand-iyer.com/blog/?tag=ubuntu>