

we are going to see how to install ns-3.36.1 in Ubuntu 22.04.

Tools used in this simulation:

NS3 version ns-3.36.1

OS Used: Ubuntu 22.04 LTS

Installation of NS3 (ns-3.36.1)

There are some changes in the ns3 installation procedure and the dependencies.

So open a terminal and issue the following commands

Step 1: Prerequisites

```
$ sudo apt update
```

In the following packages, all the required dependencies are taken care and you can install all these packages for the complete use of ns3.

```
$ sudo apt install g++ python3 python3-dev pkg-config  
sqlite3 cmake python3-setuptools git qtbase5-dev  
qtchooser qt5-qmake qtbase5-dev-tools gir1.2-goocanvas-  
2.0 python3-gi python3-gi-cairo python3-pygraphviz  
gir1.2-gtk-3.0 ipython3 openmpi-bin openmpi-common  
openmpi-doc libopenmpi-dev autoconf cvs bzip2 unrar gsl-
```

```
bin libgsl-dev libgslcblas0 wireshark tcpdump sqlite
sqlite3 libsqlite3-dev libxml2 libxml2-dev libc6-dev
libc6-dev-i386 libclang-dev llvm-dev automake python3-
pip libxml2 libxml2-dev libboost-all-dev
```

Step 2 : Download ns-allinone-3.36.1.tar.bz2 from the website nsnam.org.

<https://www.nsnam.org/releases/ns-allinone-3.36.1.tar.bz2>

Step 3 : Unzip the above file content to the home folder (in my case, its /home/pradeepkumar) - Check your home folder and do it accordingly.

To unzip use the GUI with Right click and extract and select the /home/pradeepkumar/ folder.

else you can use the command

```
$ tar jxvf ns-allinone-3.36.1.tar.bz2
```

Step 4: Go to the folder

```
$ cd ns-allinone-3.36.1/
```

```
$ ./build.py --enable-examples --enable-tests
```

This process takes some time depends on the Speed of your system.

Once the installation is done. You can run the example as shown

```
$ cd ns-3.36.1/
```

```
$ ./ns3 run hello-simulator
```

```
Hello Simulator
```

(You will get this output)

To run the examples, we need to copy the examples/tutorial/first.cc to the scratch folder and execute the file as shown below

To run C++ (.cc) file, the following command is used.

```
$ ./ns3 run scratch/first
```

To run the python file, here is the command

```
$ ./ns3 run scratch/first.py
```