Unfortunately for ngspice rev.17 there is no Ubuntu’s distribution package available.

This makes the installation of ngspice a little more difficult. Whenever an application does not come in a distribution package we have to compile the source code of the application.

Instructions on how to compile an application are typically provided on the application’s web page or in the INSTALL or README files included with the source code.

Although the process is usually quite simple, it may require a good dose of patience. This is due to the fact that, quite often, before you can successfully install and run the application you are interested in you are expected to install a number of supporting applications and libraries (that nobody bothered to mention).

If the compilation process fails do not get discouraged just read carefully the error messages, install the missing libraries and application programs and try again. The process may take several trials before you succeed, so be patient 😊

**Installation Steps**

*Step 1.*
```
sudo mkdir -p /opt-u/CAD
cd /opt-u/CAD
```

*Step 2.* **Download ng-spice-rework-17.tar.gz in /opt-u/CAD**

*Step 3.* **Uncompress and Untar ng-spice-rework-17.tar.gz**
```
tar -xzf ng-spice-rework-17.tar.gz
```

*Step 4.*
cd ng-spice-rework-17

*Step 5: Here comes the tricky part.*
*In order to successfully install ngspice you need the following “pieces”:
- autoconf
- libtool
- automake
- libgtk2.0-dev (with all the components)
- libxaw7-dev (with all the components)
- libxaw7-header (with all the components)*

Make sure you have all of them installed before you continue.
**Step 6.** From within the directory `/opt-u/CAD/ng-spice-rework-17` type the following commands:

```
aclocal
./autogen.sh
./configure --enable-xgraph
make
sudo make install
```