

YFKtest on Ubuntu-Gnome 13.10

Preface

This how-to is based on my experience with installing YFKtest on a fresh install of Ubuntu-Gnome 13.10 (i386) and using LPT based keying running cwdaemon 0.9. I will also discuss setting up rig control using hamlib to communicate with a TS590 hooked directly from my PC to the rig via a single USB A-B type cable.

All the terminal work I mention below is done with the standard gnome-terminal default with Ubuntu 13.10, not an Xterm. This can be found under the Activities/Applications section from your main screen in Ubuntu.

Getting Started With The Prerequisites

First, lets install several prerequisites to accomplish our goals mentioned above. In order to pull the latest release from Fabians repo, we will need to install subversion, and that is accomplished by the following command being issued at the terminal:

```
sudo apt-get install subversion
```

We also need to install libcurses-perl in order for YFK to run properly. This is not installed by default in 13.10. We will also need to install libltdl-d to compile our hamlib libraries, so we will add all this to the system by issuing the following command from the terminal as well:

```
sudo apt-get install libcurses-perl libltdl-d
```

Although YFKtest has support for Winkey, I do not have one of those yet, so I must use one of my old LPT based keyers that I built years ago for running Log-EQF and NA on DOS many years ago. For this, we will need to install cwdaemon through the repos as well. The current version of cwdaemon as of this writing is 0.9.5-1. To do this, issue the following command from the terminal as well:

```
sudo apt-get install cwdaemon
```

In order to have rig control, we also need to install hamlib. I have not had very good luck using the repos to install hamlib as a package, so lately I have simply gone to the Ubuntu launchpad, manually downloaded the hamlib 1.2.15.3-1.tar.gz file, and installed. At the terminal, issue the following commands to do all this:

```
wget https://launchpad.net/ubuntu/+archive/primary/+files/hamlib\_1.2.15.3.orig.tar.gz
```

Now simply uncompress the file with the TAR command as follows:

```
tar -zxf hamlib_1.2.15.3.orig.tar.gz
```

CD to the new directory as follows:

```
cd hamlib-1.2.15.3
```

Now issue the following three commands as follows, one after the other upon completion of the previous command:

```
./configure
```

```
make
```

```
sudo make install
```

Now we are ready to pull down and install YFKtest. I always issue this command, and its where you should be by default, from within my home directory. Doing this, it will download and place all the needed files to run Yfktest, in a directory aptly named, yfktest in your home directory. As of this writing, the following command pulled down and installed revision #590 0.0.10 of YFKtest. The command to issue is as follows:

```
svn checkout svn://svn.fkurz.net/yfktest
```

At this point, you can simply start and run YFKtest and have a functioning program with LPT keying providing you have an LPT interface and it is correctly hooked to your radio. You will need to be in the directory where YFKtest is installed, as in this case ~/yfktest/trunk. One thing I have noticed, the first time you start YFKtest, the LPT cwdaemon plays nicely. However, upon subsequent refires of YFKtest under the same login session, you have to manually restart cwdaemon each time before running YFKtest. Cwdaemon must be start by root with the following command:

```
sudo cwdaemon
```

Then you can run YFKtest as before under a normal user and within ~/yfktest/trunk/ simply by issuing:

```
./yfktest
```

We have not yet setup rig support yet, and this is to follow in our next section.

Setting Up Rig Control

As prefaced earlier, we are going to be setting up rig control for a Kenwood TS590. This radio is connected by a single USB cable from the back of the rig to my PC's motherboard. In previous attempts to get rig control working in Ubuntu, specifically Fldigi related issues that I had, I found some information about needing to remove *BrailleTTY* that runs in the background of Ubuntu. I have always since then removed this process by the following command issued at the terminal as such:

```
sudo apt-get remove brlTTY
```

followed then by a **reboot** of the machine to make /dev/ttyUSB0 available to rig control services.

```
sudo reboot
```

Also, along the lines of having /dev/ttyUSB0 available for use, we need to enable a standard user to have access to the USB port. We will need to add ourself to the “dialout” group in Ubuntu to give us

the necessary permission to do so. From the terminal, issue the following command:

```
sudo adduser $USER dialout
```

You will also need to then logout and log back in to make this setting take effect as well.

Next we have to simply setup the TS-590 for USB support. Specifically the USB baud-rate in menu setting #62 will need to be set the same as what YFKtest will be using later. For now, I have chosen 38400 for my baud-rate, as this is the highest YFKtest offers in the menu later to be seen.

Preparing the Gnome Terminal for Use

Because YFKtest is an Ncurses based display, there are a few settings we need to adjust in the Gnome terminal to have it play nicely with YFKtest. The terminal ideally needs to be set for 80x24, click on the “Terminal” button of an open terminal session, scroll down to “80X24” and click once. Now we need to turn off some things that prohibit the Function keys from working properly in YFKtest during CW transmit. Click on the “Edit/Keyboard Shortcuts tab as seen below, and uncheck the ticked areas for “Enable menu access keys...”, and “Enable the menu Shortcut key...” so that they look like below:



While in this same menu, scroll to the very bottom of the list to reveal the “Help” Shortcut key, click on the area that reads “F1” once, and you will notice it changes to “New accelerator..”, at this point hit CTRL and the H key simultaneously (Or anything you like) to set the new shortcut keys for “Help”

rather than the defaulted F1 which we need to use for transmitting. My finished terminal adjustments look like below:



Starting YFKtest with our First Contest Setup

Although there are numerous ways to launch YFKtest, I have stuck with simply moving myself into the directory where our launcher is located by default after the SVN. Some day I will add the launcher to my PATH and making custom directories for each contest, but for now I always do the following from the command line in a terminal:

```
cd yfktest/trunk
```

Then typing:

```
./yfktest
```

You should now be greeted with the following screen-shot:

```
File Edit View Search Terminal Help
YFKtest v0.0.10 - Copyright (C) 2008 Fabian Kurz, DJ1YFK
Copyright (C) 2012 Bob Finch, W9YA & David Quental, CT1DRB & Others.
Licensing information is in the "COPYING" file in the docs folder.

* FIRST - Make sure the caps lock is NOT on.

** SECOND - Use: ALT+o (or on some computers ALT+h) for help, ALT+c
for configuration, and ALT+m to edit the cw messages.

*** THIRD - Most contests have more than one part to the exchange.
EACH part of the exchange is in a separate entry field & you use the
spacebar to move to each one. For cw xmit you can add a space between
the parts so one key (usually the <F2> key) xmits the full exchange.
For the latest info on this: you can read the docs/FAQ-NEW-INFO file.

**** FOURTH - Turn off the rig-control & winkeyer via the ALT+c
screen & the program will stop asking about this when you start it !

***** FIFTH - Here's an example of how to start yfktest & auto-load an
existing log (FD for instance); ./yfktest ARRL-FD.yfk (& press <enter>.)

***** That's it ! - Press the ENTER key & begin using yfktest.
```

Hit Enter, and you should now create a new contest, I chose NAQP for this example and used my arrow down key to do so:

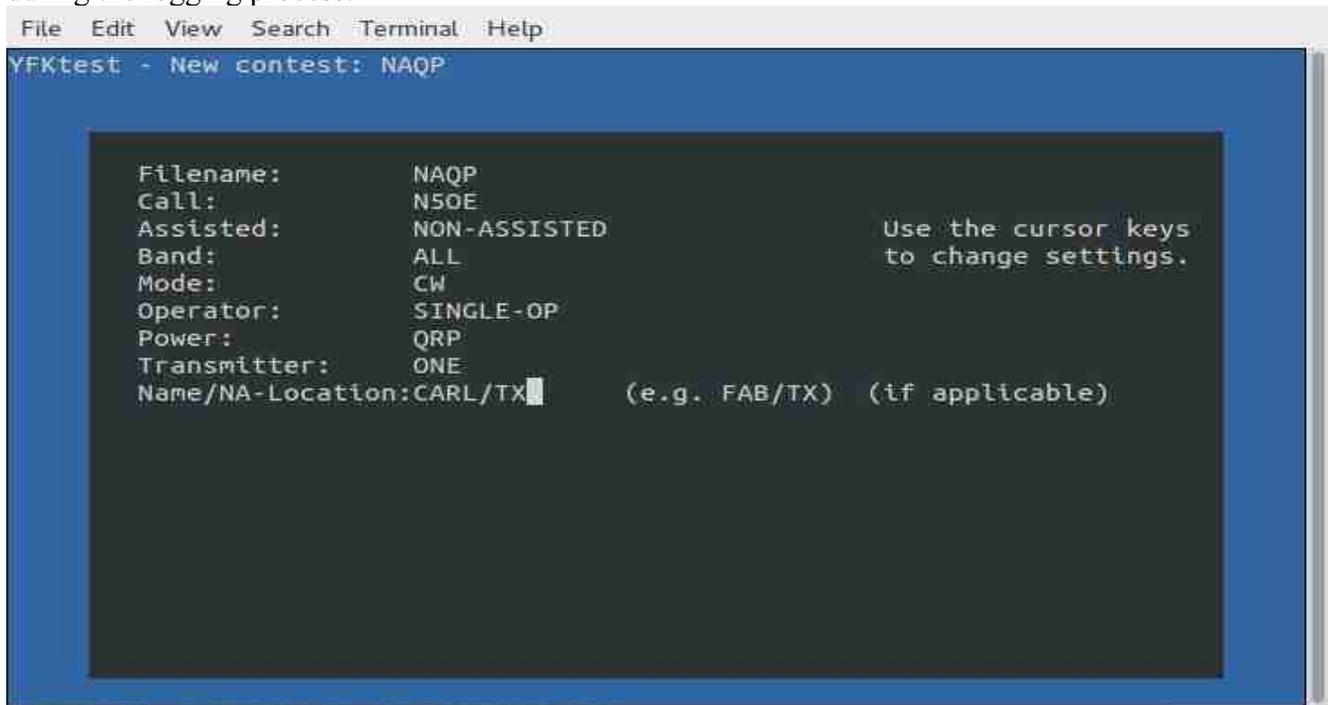
```
File Edit View Search Terminal Help
YFKtest - Open (existing contest log) file...
- OR use the up & down keys to create a NEW contest log file:

Open File...  DTC          NV-QSO-NONNV  WAG-DL
AGCW-HNY      DXPED        NV-QSO-PARTY  YODX
ALLASIAN-AS   EU-SPRINT    OKOM-DX
ALLASIAN-DX   EUHFC        OKOM
ALMEIHF-DX    FOBB         PDCON-DX
ALMEIHF       FOC          PDCON
ARRL-FD       GACW-DX      PSK-DM
ARRL-SS       GACW         QRP-ARCI-QSO-PARTY
ARRLDX-DX     HA-DX-ha    QRP-TTF
ARRLDX-US     HA-DX       RDAC-DX
CNCW         IARU        RDAC-RU
CQ160        IOTA        RDXC-DX
CQIR         IRTS80      RDXC-RU
CQWPX        NAQP-NONNA  REF-F
CQWW         NAQP        REG1FD-IRTS
CWOPS-OPEN    NAVAL       REG1FD
CWOPS        NCCC-SPRINT SAC
CWT-MEMBERS   NM-QSO-NONNM SMREY-DX
CWT-NOMEMBERS NM-QSO-PARTY SMREY
DARC-XMAS     NRA         UBA-FD

Contest: NA QSO Party
```

The next screen will prompt you to input you contest data, follow the prompts and use you r left-right arrow keys to change the options, and type in your name and exchange data near the end. Note

especially for this contest, separating you name and qth with a “/” in order for YFKtest to automatically send your name and qth in one exchange upon hitting the “insert” key when the call field is filled during the logging process:

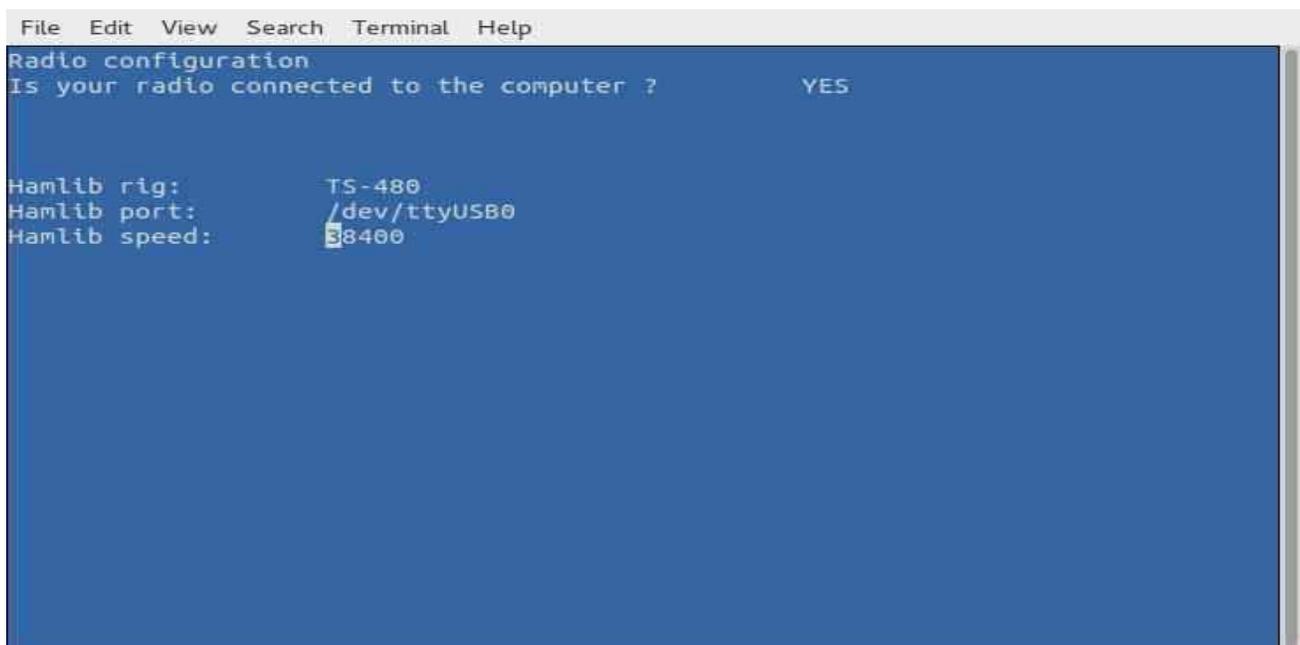


```
File Edit View Search Terminal Help
YFKtest - New contest: NAQP

Filename:      NAQP
Call:         N50E
Assisted:     NON-ASSISTED
Band:         ALL
Mode:         CW
Operator:     SINGLE-OP
Power:        QRP
Transmitter:  ONE
Name/NA-Location: CARL/TX (e.g. FAB/TX) (if applicable)

Use the cursor keys
to change settings.
```

Next we are presented with the following screenshot. We want to choose this default answer “YES” for rig control, so YFKtest will provide us with a rig control file to which we can fine tune to our needs for communicating with the TS-590 later if we want. Hit enter and we then are ask to provide further information:



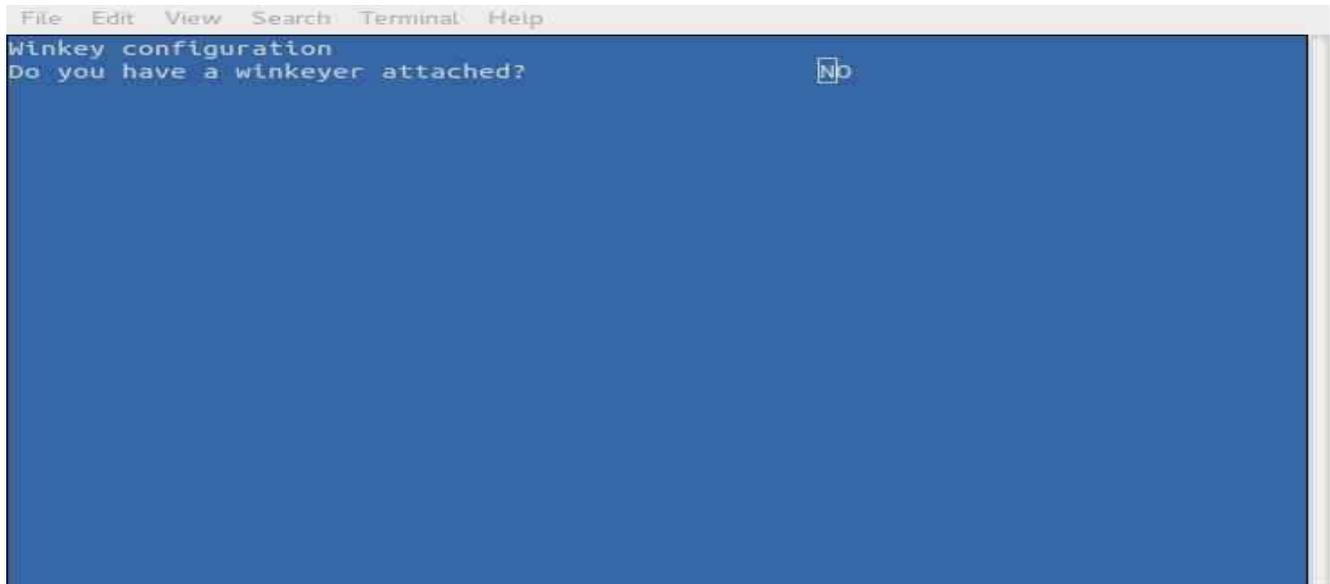
```
File Edit View Search Terminal Help
Radio configuration
Is your radio connected to the computer ?      YES

Hamlib rig:      TS-480
Hamlib port:     /dev/ttyUSB0
Hamlib speed:    8400
```

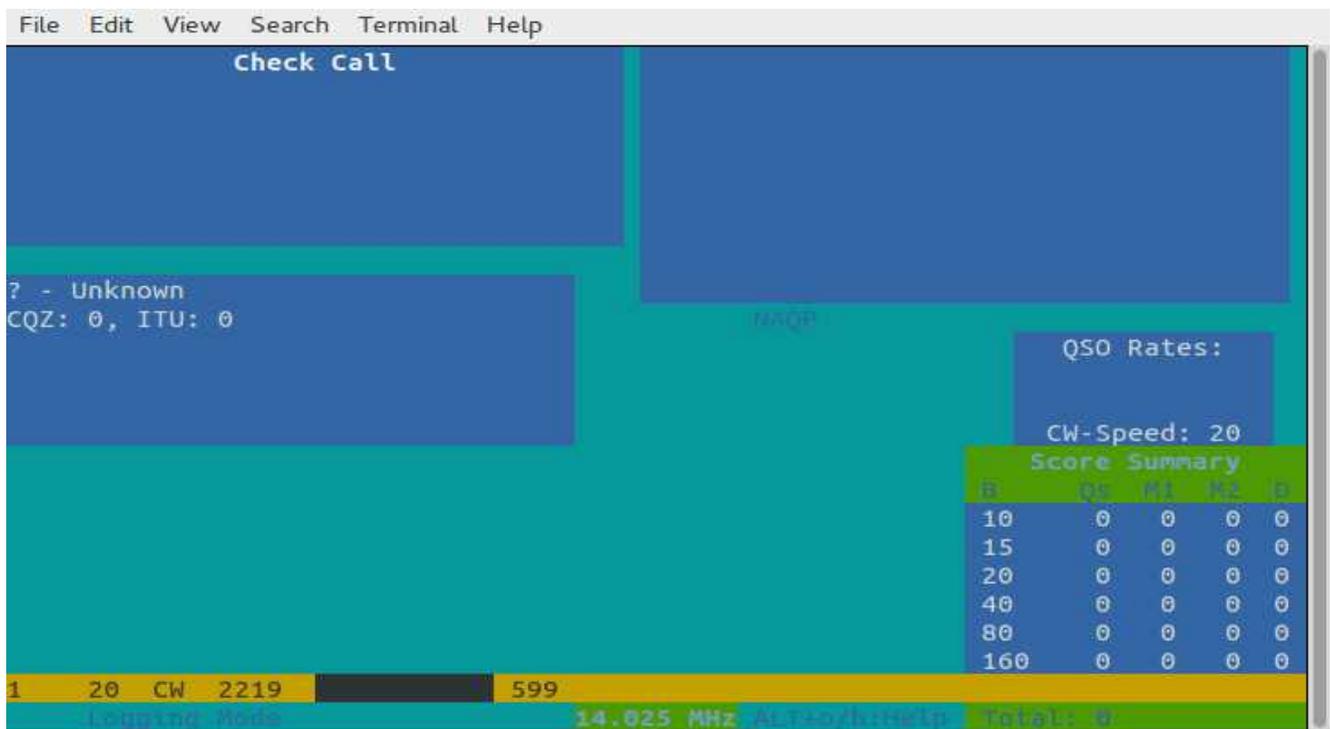
Using the left-right arrow keys, you scroll through the menu and choose for now, the TS-480 rig,

USB0, and the 38400 options. Press enter after each move and appropriate choice.

We are then greeted with the following screen asking about Winkey configuration. We are using LPT based keying via cwdaemon, so we change the default “YES” to a “NO” here by hitting the right arrow key once and pressing Enter.



The next screen that pops up is GREAT! We now have a working instance of YFKtest, running cwdaemon LPT keying, and rig control for a TS-590 radio!



From right here, the best thing to do is to finalize settings with YFK for this and future contest or instances you may start. From the screen above, hit the Alt and “c” keys simultaneously. This will take

you to the following screen:

```
File Edit View Search Terminal Help
YFKtest configuration
Do you want to change the configuration options ? YES
```

Choose Yes by hitting enter, and the next screen is where you can edit and store a lot of good settings for YFKtest. Just follow the instructions as I have laid out before by using the left-right keys to change settings, 1 being “On” and “0” being off. My personal settings are as follows:

```
File Edit View Search Terminal Help
YFKtest configuration
Do you want to change the configuration options ? YES

Use the LEFT and RIGHT cursor keys to change settings.
Then press <enter> to set and move down.
Use '0' to Turn OFF & '1' to Turn ON .

colorscheme : 0          Four different color schemes to try.
cqinterval  : 10        Time in seconds between auto-cq xmits.
cwspeed     : 30        Set the starting cwspeed.
mycall      : N5OE      Enter in the station callsign.
nologdupe   : 1        Require pressing Alt+l to log a dupe.
ops         : N5OE      Optional: Add your handle or call.
rigctl      : 1        Enable the rig control hookup.
showmsgkeys : 1        Show the cw message key's titles.
tabnextfield : 1       Sets tab key to work same as spacebar.
wantcqrepeat : 0       Turns on automatic running/cq-repeat.
winkey      : 0        Enable the winkeyer hookup.

NOTE: The winkeyer & rig-control cannot work until the program is restarted.

After this final selection, press <enter> & the configuration will be set .
```

Now, as the documentation mentions and was highlighted above in Red, we need to restart YFKtest, once back at the logging menu, type EXIT in the call area, and again restart YFKtest. However, this

time we can launch with a single command to get back into our NAQP contest profile, just type the following:

```
sudo cwdaemon
```

Followed by:

```
./yfktest NAQP.yfk
```

And you should now have a running fully operational YFKtest running rig control, LPT based keying, and a clean log to start the contest with!

