

## **Instructions for getting N3FJP Loggers working on Linux** [Courtesy Bill, WA7NCL]

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These instructions apply to modern 64 bit linux distros

Make sure wine is installed on your system (ver 4.0.1 is known to work)

Make sure winetricks is installed (ver 20180217 is known to work)

Make a 32bit wine prefix using the command line as normal user

```
WINEARCH=win32 WINEPREFIX=~/.wine32 winecfg
```

This should result in a hidden directory named “.wine32” being created and populated.

A pop up window should appear and you can make setting for the prefix. I used the defaults as is.

Now install the 3 components needed via winetricks

```
WINEPREFIX=~/.wine32 winetricks dotnet40
```

```
WINEPREFIX=~/.wine32 winetricks mdac28
```

```
WINEPREFIX=~/.wine32 winetricks jet40
```

In each case follow the instructions and accept the appropriate licenses as each component is installed.

It appears that jet40 needs to run as 32 bit so that is why we create a 32bit prefix.

Now download one of the loggers from N3FJP.com.

Mine ends up in ~/Downloads

```
WINEPREFIX=~/.wine32 wine /home/bill/Downloads/WINTERFIELDDAY.exe
```

This runs the installer. Follow the instructions and install it like any windows program.

The installer will put two files on your linux desktop (assuming a GUI desktop is running like KDE5).

One is a \*.lnk file which is a shortcut for windows, delete it since it is useless for linux.

The other is a \*.desktop file which I believe is made by wine to mimic a shortcut file in windows. If you are curious the file can be opened with a text editor and examined.

On most GUI linux it should launch the N3FJP software under wine.

Register your software as usual. You are now running under linux!

The N3FJP logger software allows the use of serial ports for Rig Interface and CW macros.

Some special setup of wine is needed.

If you use a USB to Serial converter follow these steps:

- 1) open a terminal and type: `dmesg -w`
- 2) then plug in the USB to Serial converter and watch the output.

Some text will appear in the terminal window and look for the serial device(s) that the converter is connecting to.

In my case it was `/dev/ttyUSB0` and `/dev/ttyUSB1`. You must then map them to DOS COM1 and COM2.

- 3) open a terminal and type: `WINEPREFIX=~/.wine32 wine regedit`
- 4) The GUI wine registry editor opens
- 5) Navigate to: `HKEY_LOCAL_MACHINE\Software\Wine\Ports`
- 6) add a new **string entry** named `COM1` with **value** `/dev/ttyUSB0`.
- 7) add a new **string entry** named `COM2` with **value** `/dev/ttyUSB1`.

In my case I use COM1 as the rig control and COM2 for keying.

You can check the assignment with the following command:

```
ls -l ~/.wine32/dosdevices/
```

You may have to restart the wine server using: `wineserver -k` before the mapping takes effect.

Be advised that the CW keying is in my experience poor under linux wine. It did not seem to matter what timing mode I used. I did not have a Winkeyer device to test. If that device works, it would be the way to go using linux and wine.

One of the bugs I have found concerns the TCP networking function. The loggers running as a normal user under wine will only function as clients for the networking function. You will not be able to use them as servers. This is because the loggers use port 1000 for TCP networking. Ports below 1024 are only available to processes running under root in linux.

[N3FJP Note: Bill's networking results in Linux were specific to the TCP networking option. Networking should work fine in File Share mode.]

It is highly frowned upon to run wine and user processes as root under linux. However perhaps if you run in a virtual machine, it might be acceptable. I tested it and running the loggers and wine as the root user and was able to have both client and server function available.

There are two programs available to linux called authbind, and privbind that in some instances can allow binding to ports under 1024 under linux. Wine appears to be fundamentally incompatible with either. I tested both authbind and privbind and neither worked. There may be other ways which I am not aware of.

Additionally, for networked TCP connection, the computer name will not resolve to an IP address like on windows. You must get the IP address of the server and type it in explicitly. For example 192.168.0.1. The IP depends on your network setup and will likely be different. The reason for this is that Windows uses a NETBios service to resolve names to IP addresses. Linux has components that can be installed which will resolve NETBios names, but you must install and configure them. I did not try to do that.

The server IP address can be found under windows by opening a command window and typing:

```
ipconfig
```

Since names will not resolve to IP addresses you might consider giving the log server a fixed IP so that DHCP does not reassign the IP if you reinitialize the server.

Another bug that I have found concerns the "Edit" and "Delete" function. Under windows selecting a log entry brings up Edit and Delete buttons. They do not appear under wine. Right clicking an entry allows you to edit and save an entry. I could not find a way to delete entries. A possible workaround would be to mark them with operator initials XX and edit them out of an exported ADIF log. It would then be necessary to import the edited log in order to have the log scored properly.