



Closed Source Ham Radio Software on GNU/Linux

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Introduction

Below is a non-comprehensive list of [closed source software](#) useful to the amateur radio operator. I have personally tested all software on the latest [Xubuntu LTS](#) GNU/Linux distribution. Things that I tried, but did not work, are also listed and indicated as such. Your mileage may vary.

Of course, there are many more ham-related [free and libre open source software](#) packages available under the “Amateur Radio” section in the main repository of many GNU/Linux distributions. The largest collection of ham radio packages is offered by [OpenSuse](#) and [Debian](#)-derived distributions like [Xubuntu LTS](#) and [Linux Mint](#), to name but a few. In Xubuntu LTS, I counted no less than [74 packages](#).

By contrast, the software listed on this page is predominantly Windows™ software. Hence, [wine](#), [PlayOnLinux](#) or its commercially supported counterpart, [CodeWeavers CrossOver](#) will be required to run this software on GNU/Linux. I do recommend using [PlayOnLinux](#) over [wine](#) as new software installations usually turn out to be rather painless and uneventful. Conversely, [wine](#) every so often requires fiddling with configuration parameters for new software to run successfully.







Other closed source software is written in [Java](#), a platform-independent compiled programming language. Running Java bytecode requires a machine-specific Java Runtime Environment (JRE). Normally, your GNU/Linux distribution comes with `openjdk-7-jre`. However, for security reasons I choose to run [Oracle Java](#) instead.

Threatened with extinction

Many of the authors/copyright holders of below software have gained a respectable age. Suffice to say: “We are all perishable.” Unless these authors have taken extraordinary measures—which I doubt they did—, the copyright and source code will remain with their clueless relatives once they are no longer around.

Seems too far-fetched? I don't think so. Have a look at what is left of **Kangaroo Tabor Software CAPMan and WinCAP**. Now that the author is no longer among us, nothing more remains of the great propagation software other than a hacked web site. By contrast, **VOACAP** was open-sourced a while ago and is thriving. It runs on newer Windows™ versions and it even has a Linux port now, called **VOACAPL**.

Table 1: Closed source ham radio software that runs on GNU/Linux

| icon | name | use | runs on Linux | free of charge | open source | open license |
|---|-----------|--|---|----------------|-------------|--------------|
|  | 4nec2 | antenna modelling and optimisation | with PlayOnLinux | yes! | no | no |
|  | FLE | fast log entry | with PlayOnLinux | yes! | no | no |
|  | HAMRS | field logger | Ubuntu or Raspbian AppImage | yes! | no | no |
|  | LPCAD | log-periodic antenna design | with PlayOnLinux | yes! | no | no |
|  | SD | DXpedition & contest logging | with wineconsole , see instructions | no | no | no |
|  | TLDetails | transmission line details, losses & match calculator | with PlayOnLinux | yes! | no | no |

Call to action

If you are developer:

- Be sure to include your authored material in your testament by posthumously granting an open-source license. The GNU GPL is a good starting point.


- Be sure that the executors of your testament know how to publish your code as open source. Think about [Bitbucket](#) and [GitHub](#).
- Don't be afraid to open source your code while you're still alive. Selflessness is one of the lessons to be learned in this life. You won't lose control over your software; you will only grant others the possibility to [fork it](#). Only open-sourcing will enable your coding project to outlive you.

If you are a current user of closed-source amateur radio software:

E-mail the developers and express them your sincere concerns. Copy above paragraph and/or kindly ask them to have a look at [this very web page](#).






Recently open-sourced

Table 2: Recently open-sourced ham radio software that runs on GNU/Linux

| icon | name | use | runs on Linux | free of charge | open source | open license |
|---|-------|--------------|----------------------------------|----------------|-----------------------------|--|
|  | MMTTY | RTTY decoder | with PlayOnLinux | yes! | yes! GitHub | yes! LGPL as of 2013.08.01 |



Commercial software

Table 3: Commercial closed source ham radio software that runs on GNU/Linux

| icon | name | use | runs on Linux | free of charge | open source | open license |
|---|--------------------------|---------------------------------|----------------------------------|---------------------------------|-------------|--------------|
|  | Abacom sPlan 6.0 | schematic capture | with PlayOnLinux | no | no | no |
|  | ARRL Periodicals | | with PlayOnLinux | no | no | no |
|  | Eagle (Light Edition) | PCB layout | natively! | yes! | no | no |
|  | LTspice | Electronic circuit simulation | with PlayOnLinux | yes! | no | no |
| Win-Test | Win-Test | contest logging, including RTTY | with PlayOnLinux | no, <i>only for DXpeditions</i> | no | no |
|  | WriteLog prior to v10.78 | contest logging, including RTTY | with PlayOnLinux | no | no | no |

Hardware

Table 4: Ham radio hardware with GNU/Linux drivers

| icon | name | use | runs on Linux | free of charge | open source | open license |
|---|-------------|---|------------------|----------------|-------------|--------------|
|  | Kenwood MCP | transceiver memory control program | with PlayOnLinux | yes! | no | no |
|  | VNA/J | interface to the miniVNA vector network analysers | with Oracle Java | yes! | no | no |

Icons

After installation of new Windows™ software, PlayOnLinux can be instructed to create program launchers with icons. These icons are stored in the following directory.

```
~/.PlayOnLinux/icones/
```

Aspiring programmers

Here are a few tips for aspiring programmers and developers of amateur radio software. Following these recommendations will ensure a broad adoption of your software by users with the most diverse operating systems and machines.

- Choose to program in a platform-independent programming language. Python and Java are popular choices which allow the same code to be run on Windows™, OSX and GNU/Linux.
- Employ a distributed revision control system from the outset. Both Hg Mercurial and git are excellent choices.
- If possible, use non-binary, human-readable, text-based file formats to store all user data.
- Reuse existing open-source software libraries wherever you can. Qt and GTK+ are popular and proven cross-platform widget tool kits for creating graphical user interfaces (GUI).
- Apply tools and good programming practices for internationalisation and localisation (i18n & L10n).
- Provide an application interface (API) to your software application and publish it.
- Write good documentation. Comment your code.

- Consider **open-sourcing** and **open-licensing** your code. There are many options in terms of permissiveness.



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Unattended **CSS** typesetting with **Prince**.
Print with CSS

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