GNU/Linux Ham Radio Setups

Here's a quick list of pages I found promising about using GNU/Linux for ham radio.

- https://hamwaves.com/linux.ham/en/index.html
- https://sourceforge.net/projects/kb1oiq-andysham/
- https://launchpad.net/~ubuntu-hams-updates/+archive/ubuntu/ppa/+index?batch=75

If any of you are already using GNU/Linux to run ham radio programs, please feel free to edit this page to share your experience, tips, etc.

HamPi

HamPi is a Raspberry Pi image that comes preloaded with tons of ham software. Here's the list (copied from their README.docx file):

General Ham Radio Applications

- HamLib - Ham Radio Control Libraries
- grig - graphical user interface to the Ham Radio Control Libraries
- CHIRP - Radio Programming Software
- APRS Message App for JS8Call - GUI to send APRS messages via JS8Call
- QTel - EchoLink client
- QSSTV - Slow Scan TV (e.g. "Fax")
- Gpredict - Satellite prediction
- FreeDV - Free digital voice vocoder
- BlueDV - Client for D-Star and DMR
- WsprryPi - WSPR software
- ADS-B Flight Tracking Software
- Pi3/4 Stats Monitor - by W1HKJ
- VOACAP - HF propagation prediction
- GPS Support
- Auto WiFi Hotspot - Automatically turn your Pi into a WiFi hotspot when in the field!
- wxtoimg - NOAA weather imaging software
- twHamQTH - an online callsign look up program
- twclock - a world clock and automatic ID for amateur radio operators
- acfax - Receive faxes using your radio and sound card
- colrconv - convers client with sound and ncurses color support
- D-Rats 0.3.9 (by new maintainer Maurizio Andreotti) - A communication tool for D-STAR
- fbb - Packet radio mailbox and utilities
- gcb - Utility to calculate long and short path to a location
- glfer - Spectrogram display and QRSS keyer
- Xdx is a DX-cluster client
- DXSpider - DX Cluster Server
- fccexam - Study tool for USA FCC commercial radio license exams.
- gnuais / gnuaisgui - GNU Automatic Identification System receiver
- hamexam - Study guide for USA FCC amateur radio (ham radio) license examinations.
- hamfax - Qt based shortwave fax

- inspectrum - tool for visualising captured radio signals
- predict-gsat - Graphical Predict client
- splat - analyze point-to-point terrestrial RF communication links
- wwl - Calculates distance and azimuth between two Maidenhead locators
- AX.25 – Packet Radio drivers for ax.25 protocol
- linpac - terminal for packet radio with mail client
- PyBOMBS - GNU Radio install management system
- AMBEServer – AMBE vocoder chip support

Antenna Ham Radio Applications

- antennavis - Antenna Visualization Software
- gsmc - A GTK Smith Chart Calculator for RF impedance matching
- nec2c - Translation of the NEC2 FORTRAN source code to the C language
- xnecview - NEC structure and gain pattern viewer
- yagiuda - software to analyse performance of Yagi-Uda antennas

Digital Mode Ham Radio Applications

- WSJT-X - Weak Signal (FT8, FT4, etc.) by W1JT
- GridTracker - Graphical mapping companion program for WSJT-X or JTDX
- JTDX - Alternate client for Weak Signal (FT8, FT4, etc.)
- JS8Call - Messaging built on top of FT8 protocol by KN4CRD
- JS8CallTools - Get Grid coordinates using GPS
- (FLDigi is in its own section below.)
- gnss-sdr - GLONASS satellite system Software Defined Receiver
- linpsk - amateur radio PSK31/RTTY program via soundcard
- multimon - multimon - program to decode radio transmissions
- multimon-ng - digital radio transmission decoder
- psk31lx - a terminal based ncurses program for psk31
- twpsk - a psk program

Software Defined Radio

- CubicSDR - Software Defined Radio receiver
- cutesdr - Simple demodulation and spectrum display program
- GQRX - Software defined radio receiver
- SDRAngel - SDR player
- lysdr - Simple software-defined radio
- SoapyAudio - Soapy SDR plugin for Audio devices
- SoapyHackRF - SoapySDR HackRF module
- SoapyMultiSDR - Multi-device support module for SoapySDR
- SoapyNetSDR - Soapy SDR module for NetSDR protocol
- SoapyRemote - Use any Soapy SDR remotely
- SoapyRTLSDR - Soapy SDR module for RTL SDR USB dongle
- SoapySDR - Vendor and platform neutral SDR support library
- SoapySDRPlay - Soapy SDR module for SDRPlay
    - Support for RTL-SDR
    - Support for SDRPlay SDR
    - Support for HackRF SDR
    - Support for AirSpy and AirSpy HF
- SoapySDRAirSpy- Soapy SDR module for AirSpy SDR
- SoapySDRFUNcube Dongle Pro+- Soapy SDR module for FUNCube Dongle Pro+

- SoapySDRPlutoSDR- Soapy SDR module for Pluto SDR
- SoapySDROsmoSDR- Soapy SDR module for Osmo SDR
- SoapySDRRedPitaya- Soapy SDR module for Red Pitaya SDR
- SoapyUHD- Soapy SDR module for Ettus ResearchUHD SDR
- SoapySDRVOLKConverters - Support for VOLK-based type converters

APRS Applications

- Xastir - APRS GUI client / Digipeater / Igate
- YAAC - Yet Another APRS Client
- DireWolf - Software "soundcard" AX.25 packet modem/TNC and APRS encoder/decoder
- aprsdigi - digipeater for APRS
- aprx - APRS Digipeater and iGate
- soundmodem - Sound Card Amateur Packet Radio Modems

FLDigi Application Suite from W1HKJ

- flrig - Rig Control program which interfaces with fldigi
- fldigi - Digital Modes Communications
- flaa - RigExpert Antenna Analyzer Control Program
- flamp - File transmissions via Amateur Multicast Protocol
- flarq - ARQ data transfer utility for fldigi
- flcluster - Telnet client to remote DX Cluster Servers
- fllog - Logbook application which can use same data file as fldigi
- flmsg - Editor for ICS 213 Forms
- flnet - Net Control Assistant for Net Activities (Check-In Application)
- flpost - NBEMs post office
- flwrap - File encapsulation and compression for transmission over amateur radio
- flwkey - Winkeyer (or clone) control program for K1EL Winkeyer series

Logging Applications

- TrustedQSL - LotW client
- CQRlog - Ham Radio Logging Application
- PyQSO - Logging software (written in Python)
- klog - The Ham Radio Logging program
- tlf - console based ham radio contest logger
- tucnak2 - VHF/UHF/SHF Hamradio contest log version 2
- twlog - basic logging program for ham radio
- upload_adif_log – Upload only new log entries to LotW, eQSL.cc and ClubLog
- wsjtx_to_n3fjp - Logging adapter to allow WSJT-X to log to N3FJP
- xlog - GTK+ Logging program for Hamradio Operators

WinLink Applications

- Pat WinLink - WinLink for Raspberry Pi (and other platforms)
- ARDOP support for Pat WinLink
- ARDOP-GUI - Provides graphical representation of ARDOP connections
- Find ARDOP - Retrieves local ARDOP sources by KM4ACK
- Pat Menu 2 – Menu for Pat by KM4ACK
- PMON - a PACTOR® Monitoring Utility for Linux

Morse Code Applications

- aldo - Morse code training program
- cw - sound characters as Morse code on the soundcard or console speaker
- cwcp - Text based Morse tutor program
- xcwcp - Graphical Morse tutor program
- cwdaemon - morse daemon for the serial or parallel port
- ebook2cw - convert ebooks to Morse MP3s/OGGs
- ebook2cwgui - GUI for ebook2cw
- morse - training program about morse-code for aspiring radio hams
- morse2ascii - tool for decoding the morse codes from a PCM WAV file
- morsegen - convert file to ASCII morse code
- qrq - High speed Morse telegraphy trainer
- xdemorse - decode Morse signals to text