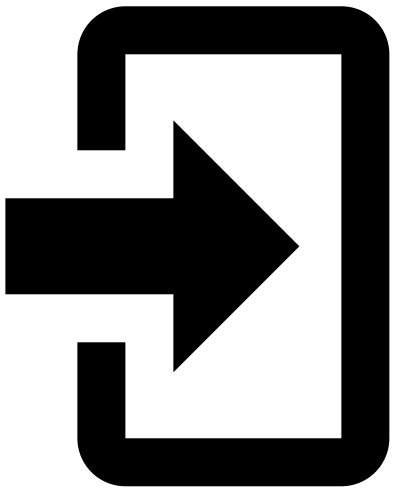
GNU/Linux Ham Radio Setups

I'm wondering what / if / how any of you are using GNU/Linux for ham radio. Here's a quick list of pages I found promising:

- https://hamwaves.com/linux.ham/en/index.html
- https://sourceforge.net/projects/kb1oiq-andysham/
- https://launchpad.net/%7Eubuntu-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. If this page grows enough, we can move it to the How To section.

@page { margin: 2cm } p { margin-bottom: 0.25cm; direction: ltr; color: #00000a; line-height: 120%; text-align: left; orphans: 2; widows: 2 } p.western { font-family: "Liberation Serif", serif; font-size: 12pt; so-language: en-US } p.cjk { font-family: "Noto Sans CJK SC Regular"; font-size: 12pt; so-language: zh-CN } p.ctl { font-family: "FreeSans"; font-size: 12pt; so-language: hi-IN } a:link { color: #0563c1 }



Fellow Hams and Raspberry Pi Enthusiasts,

I am pleased to announce the release of *HamPi* 1.0 – The Raspberry Pi Ham Radio Image I've been working on for the last six months (Dec. 2019 – June 2020).

I have confirmed this image starts up successfully on the Raspberry Pi Model 4 B. Compatibility is currently being run on earlier Raspberry Pi models. A series of beta-testers have tested this and provided feedback prior to release, and I have used that feedback to make this a better image for everyone.

The primary place to download this is via BitTorrent. If you can’t, or won’t, use BitTorrent, there are a number of direct download links:

For hosting direct download sites, thank you to: Norm Schklar, WA4ZXV, William Franzin, VE4VR, David Cooley, N3XMT, and David Potter, KE8OHG.

A BIG thank you to my XYL, Michelle, for creating the HamPi Logo!

Please send me any comments or concerns via email to w3djs@arrl.net.

-Dave Slotter, W3DJS

ATTENTION: So I don't get publicly tarred and feathered for not disclosing this openly, please be aware by running this image on your Raspberry Pi that you consent to giving your idle cpu cycles to radio telescope research, such as looking for pulsars. If you do not agree with this, do not run the image. Again, this will not interfere with your usage – this only uses cpu cycles when your Raspberry Pi is idle. Disk use is also minimal. (1/1000 or less)

(For what it's worth, I also operate my Raspberry Pi 4 this way.)

HamPi 1.0 – The Raspberry Pi Ham Radio Image by W3DJS

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

*** Ham Radio Wallpaper also included in image ***