

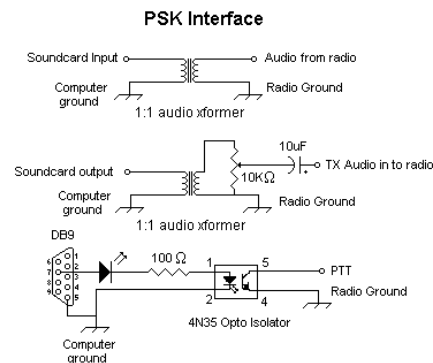
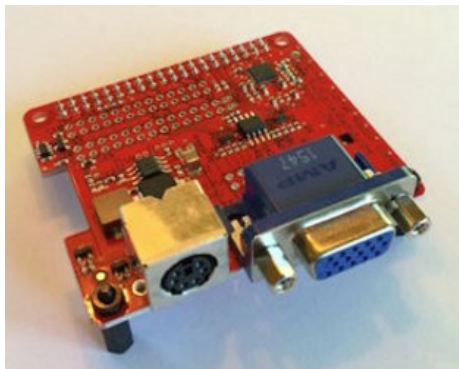
Fldigi SEAPAC Workshop

- **Fast Light Digital** modem applications
- **Corky Searls, AF4PM**
 - Fldigi install instructions along with Basil N7NIX
 - <https://nw-digital-radio.groups.io/g/udrc/wiki/UDRC™-and-fldigi-Setup-Page>
 - Linux geek
 - <mailto:af4pm@arrl.net>
- **Randy Hall, K7AGE**
 - Lots of YouTube videos about using digital modes
 - <http://www.youtube.com/user/K7AGE>
 - Linux newb
 - <mailto:k7age@k7age.com>



Fldigi, what is it?

- Software for digital modes for your computer
 - FREE, open source
 - Mac, Windows, Linux – even runs on the Pi!
 - Uses a soundcard from computer to radio
 - UDRC II board has a sound card chip, plugs on top of the Pi
 - Tigertronics' SignalinkUSB is very popular, USB connection
 - Build your own, connects to audio in and out on computer
 - Many modem radios have built in USB sound card & control



14070.000

Frq 14071.009 On Off 2311 In Out
 Call Op Az
 Qth St Pr L C

USB

company-Rio Tinto so I traveled a lot. You have a real nice set up there on the coast, and your beam is getting a terrific signal out. BTU W1NDY Alan de N6CIC KK N6CIC de W1NDY FB on operating from UK, I have operated from 4 countries, before I got smart and went remote via laptop. OK on being a chemist, I worked at marine business for 26 years, and travelled extensively for them. Spouse and I made ten overseas trips after retirement, but I am now her caregiver, so glad we went while she could. Still 100%. I should let you wind this up if band is still good out there?? K

OK Alan-terrific. I am also my wife's caregiver at the moment as she had a knee replacement. Hopefully she will be back to at least 90% in a few months. Great to have this conversation with you. and I hope to have another in the future. So many 73s alan as I see the band is now opening up a bit. 73 73 and all the best DE N6CIC SK SK

W1NDY Still 100% print. The ONLY good thing about being a caregiver, is you can operate all hours of day and night XYL is terminal so a battle every day. I am on most days, love digimodes, and this has been a real pleasure. Stay cool, enjoy the opening Yes thanks Alan, sorry about your wife. Best 73s 73 73 and all the best Alan W1NDY DE N6CIC SK SK

N6CIC de W1NDY Best 73's OM, God bless. SK SK stop>

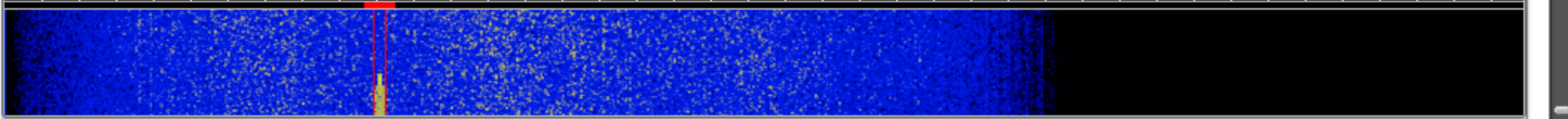
14071.01 SK stop>

^

CQ 3.0 Clear

CQ ANS QSO KN SK Me/Qth Brag T/R Tx Rx TX 1

500 1000 1500 2000 2500 3000 3500 4000

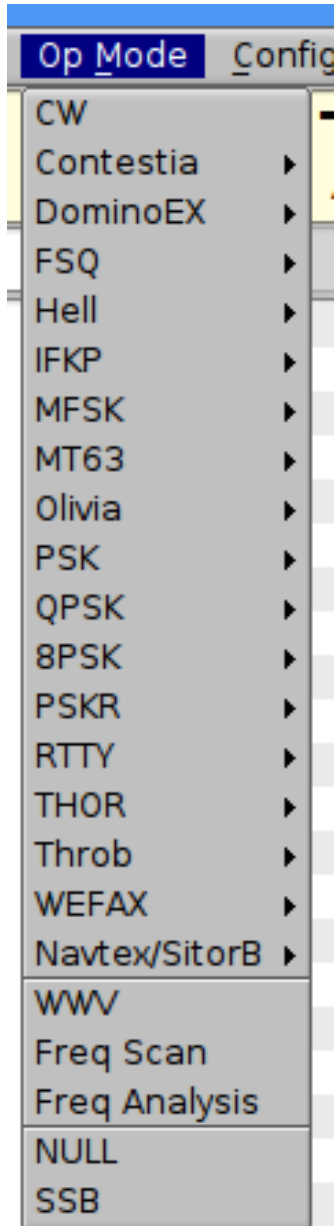


WF -20 57 x1 NORM 1009 QSY Store Lk Rv T/R

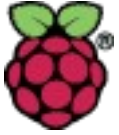
BPSK31 s/n 4 dB imd -30 dB -3.0 AFC SQL



Fldigi, lots of modes/modems



- Lots to choose from –
- But there are some modes that it doesn't offer
 - SSTV, WSPR, JT65/9, Packet, Pactor
 - FreeDV and probably some others.
- Perfect for -
 - General digital mode operating
 - NBEMS – EMCOMM suite of applications
 - Narrow Band Emergency Messaging System



Fldigi, who and where

- Dave Freese W1HJK
 - And help from many others
 - Free – open source
- Available at
 - <http://www.w1hkj.com/>

Software By W1HKJ & Associates

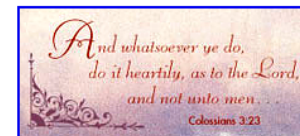
All source, dmg, and Windows setup files are now available at [Source Forge](#)

- fldigi / flarq - current version fldigi 4.0.4, flarq 4.3.6
 - [Fldigi On-line html Help](#)
 - [Sights & Sounds of Digital Modes](#)
 - **Disable** "Check for updates when starting program" if you are using a **version less than 3.23.04**.
- flamp - Amateur Multicast Protocol - file transfer program
- flwrap - file encapsulation / compression
- flmsg - Forms manager
- flrig - rig control program, cooperates with fldigi
- flwkey - modem program for the K1EL Winkeyer series
- fllog - can use same data file as fldigi
- flnet - voice net controller database / check-in application
- kcat - Kachina 505DSP controller for Linux, Windows and OS X
- kcts - Kachina 505 test suite for Linux, Windows and OS X
- test suite - includes linsim, comtext and comptty

Build instructions for various distributions can be found on the fldigi [Wiki](#)

12 May 2017

[Support fldigi](#)





Fldigi @ sourceforge

fldigi
Ham Radio Digital Modem Application
Brought to you by: dave-w1hjk, sb42

Location of the latest Fldigi files

Summary | **Files** | Reviews | Support | Mailing Lists | Git ▾

Looking for the latest version? [Download flrig-1.3.31_setup.exe \(1.0 MB\)](#)

Home

Name ▾	Modified ▾	Size ▾	Downloads / Week ▾
flrig	2017-05-16		685
fldigi	2017-05-10		4,319
alpha_tests	2017-05-05		185
AndFlmsg	2017-05-05		183
flmsg	2017-04-18		462
fieldday	2017-02-14		17
pets	2017-01-29		19
flnet	2016-12-12		62
fllog	2016-06-24		77
flwkey	2016-03-24		37
flxmlrpc	2016-02-25		14
xmIs	2015-10-09		477
kcat	2015-10-08		16
flwrap	2015-10-08		117

fldigi
Ham Radio Digital Modem Application
Brought to you by: dave-w1hjk, sb42

Summary | **Files** | Reviews | Support | Mailing Lists | Git ▾

Looking for the latest version? [Download flrig-1.3.31_setup.exe \(1.0 MB\)](#)

Home / fldigi

Name	Modified	Size	Downloads / Week
↑ Parent folder			
fldigi_4.0_help.pdf	2017-05-10	17.6 MB	338
readme.txt	2017-05-10	649 Bytes	238
fldigi-help.zip	2017-05-10	18.5 MB	95
fldigi-4.0.4_ppc.dmg	2017-05-10	6.4 MB	56
fldigi-4.0.4_setup.exe	2017-05-10	5.3 MB	1,688
fldigi-4.0.4_i386.dmg	2017-05-10	6.0 MB	241
fldigi-4.0.4.tar.gz	2017-05-10	3.4 MB	262
Totals: 7 Items		57.1 MB	2,918

Windows
Linux, Pi





Fldigi Installation Instructions

- <https://nw-digital-radio.groups.io/g/udrc/wiki/UDRC™-and-fldigi-Setup-Page>

The screenshot shows the Groups.io interface for the group 'udrc@nw-digital-radio.groups.io'. The page title is 'UDRC™ and fldigi Setup Page'. The main content area is titled 'Instructions' and is based on notes provided by Basil - N7NIX and Corky - AF4PM. A 'Contents' table of contents is visible, listing 12 numbered sections. A sidebar on the left contains navigation links for Home, Subscription, Messages, Hashtags, New Topic, Chats, Subgroups, Directory, Calendar, Photos, Files, Databases, and Wiki. A search bar is located at the top right of the main content area. A list of related links is shown on the right side of the page.

Groups.io Your Groups Find or Create a Group Randy Hall

udrc@nw-digital-radio.groups.io / Wiki / UDRC™ and fldigi Setup Page Search Search

Last edited 12/13/16 · 13 revisions

Instructions

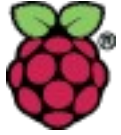
Based on notes provided by Basil - N7NIX and Corky - AF4PM

Contents

- 1 Instructions
- 2 Mount your UDRC™ on a Raspberry Pi 2 or Pi 3
- 3 Install Compass Linux
- 4 Basic Configuration
- 5 Verify that Compass is seeing the UDRC
- 6 If using a Raspberry Pi 3
- 7 Configure the audio settings for the UDRC™/UDRC-II
- 8 Load libraries and header files to support the Fldigi install
- 9 Source Code for Fldigi build
- 10 Build Fldigi
- 11 Export the GPIO line for PTT
 - 11.1 For UDRC
 - 11.2 For UDRC-II
- 12 Startup and set levels in fldigi
 - 12.1 Station Information
 - 12.2 Sound Card Setup

Application Note: PTT Keying
Bridgecom Systems Repeaters
Cabling the UDRC II for 2 Radios
Configure ircDDBGateway
Creating Virtual Sound Cards for the UDRC™
Direwolf Packet Modem
Generate a Tone to Set Radio Deviation
Notes for Kenwood TKR-750/780 Repeaters
Powering the UDRC™ from 12 VDC
Raspberry Pi 3 Addendum
Setup Fldigi for UDRC™
Simplex Hotspots and Converted Analog Repeaters
UDRC II EEPROM Flashing
Yaesu DR-1X Repeater
Order a UDRC™

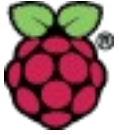




Fldigi, installation

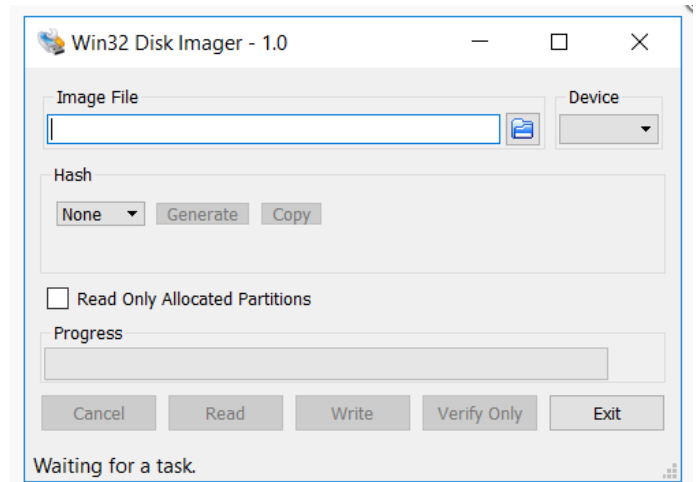
- This may have been run before using Fldigi
- If not, then you will not have audio for Fldigi
- So, enter this -
 - This is included on the Fldigi installation instructions
 - The Pi needs to be connected to the internet

```
cd ~  
curl -L -s https://goo.gl/7rXUFJ > set-udrc-din6.sh  
chmod +x set-udrc-din6.sh  
sudo ~/set-udrc-din6.sh
```

In case of fire, **CRASH**

-
- Backup you memory card
 - **Always** shut down and remove power before inserting or removing memory card.
- Get Win32 Disk Imager and learn how to use it
 - <http://sourceforge.net/projects/win32diskimager/>
 - Used to copy Pi's operating system image to card
 - Copy Pi's memory card to PC's hard disk
 - This is your **backup file**
 - When you make configuration changes, **make a backup**
 - Also handy to have multiple **memory cards**
- SD Card Copier on the Pi is *suspect*





Fldigi, setup screens

- Operator

Fldigi configuration

Operator UI Waterfall Modems Rig Audio ID Misc Web Autostart IO PSM

Station / Operator

Station Callsign: K7AGE

Station QTH: Gold Beach Or

Station Locator: CN72

Operator Callsign: K7AGE

Operator Name: Randy

Antenna: Hunk of wire

Restore defaults Save Close

Don't forget to Save

It will Close without saving



Fldigi, setup screens

- Audio - Devices

The screenshot shows the 'Fldigi configuration' window with the 'Audio' tab selected. The 'Devices' sub-tab is active, showing the following settings:

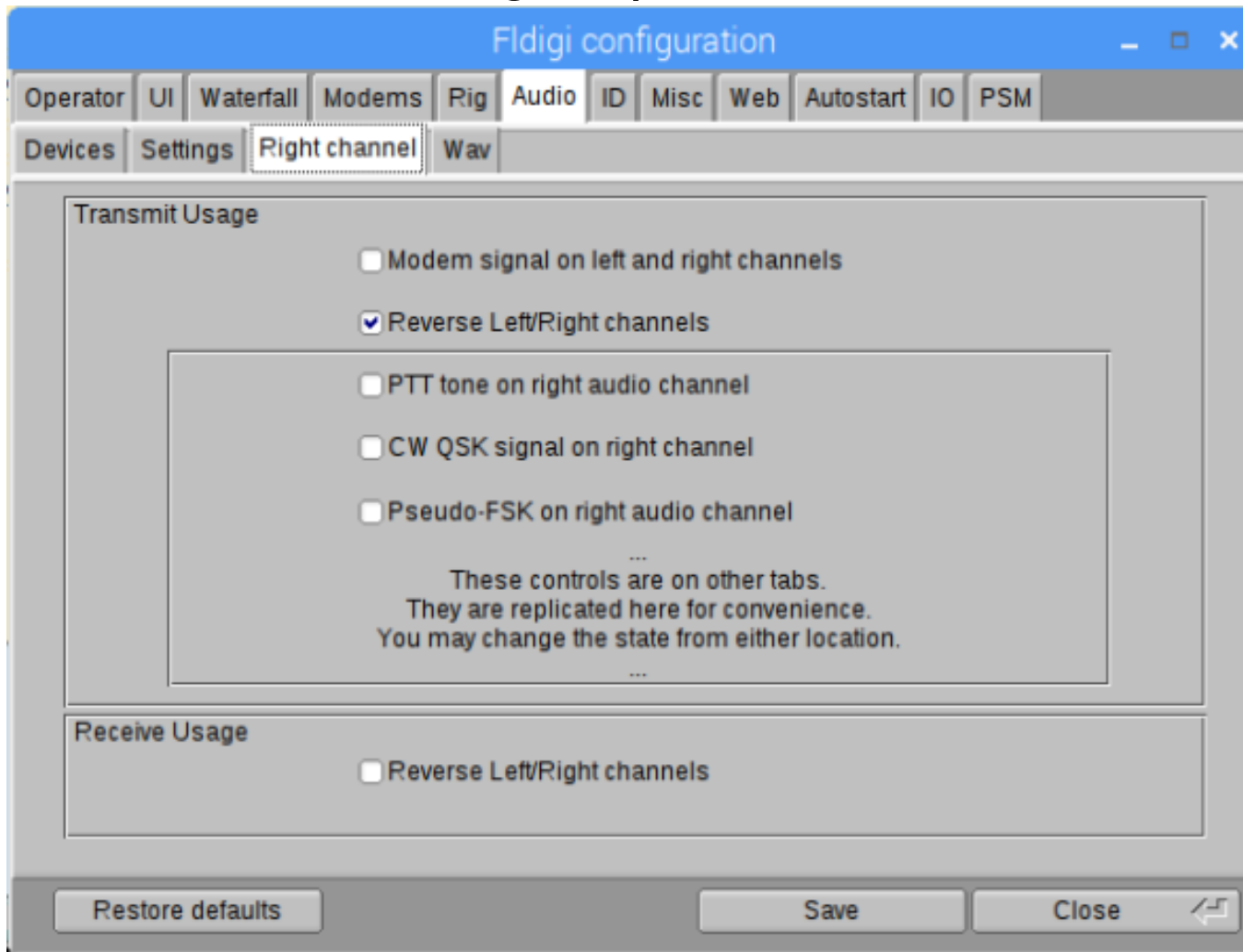
- OSS Device: [dropdown menu]
- PortAudio Capture: udrc: - (hw:0,0) Playback: udrc: - (hw:0,0)
- PulseAudio Server string: [text field]
- File I/O only

At the bottom of the window are three buttons: 'Restore defaults', 'Save', and 'Close'.



Fldigi, setup screens

- Reverse Left/Right when using straight through 6 pin Din cable
- Un-check if using 15 pin D connector





Fldigi, setup screens

- Rig - RigCAT

Fldigi configuration

Operator UI Waterfall Modems Rig Audio ID Misc Web Autostart IO PSM

fllrig RigCAT Hamlib XML-RPC Hardware PTT GPIO

Use RigCAT

Rig description file:
FT-817.xml Open... Device: A1016CVQ-if00-port0

Retries: 2 Retry interval (ms): 500 Baud rate: 38400

Write delay (ms): 5 Init delay (ms): 0 Stopbits: 2

Commands are echoed CAT command for PTT

Toggle RTS for PTT Toggle DTR for PTT

RTS +12 v DTR +12 v

RTS/CTS flow control VSP Enable

Restore Settings on Close

Initialize

Restore defaults Save Close

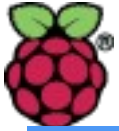
Rig, directory of rig xml files

Device, menu of serial ports

Baud & Stopbits, set to match radio

PTT, no. Use GPIO?

Click Initialize button & Save



Use Archiver to unzip XML files

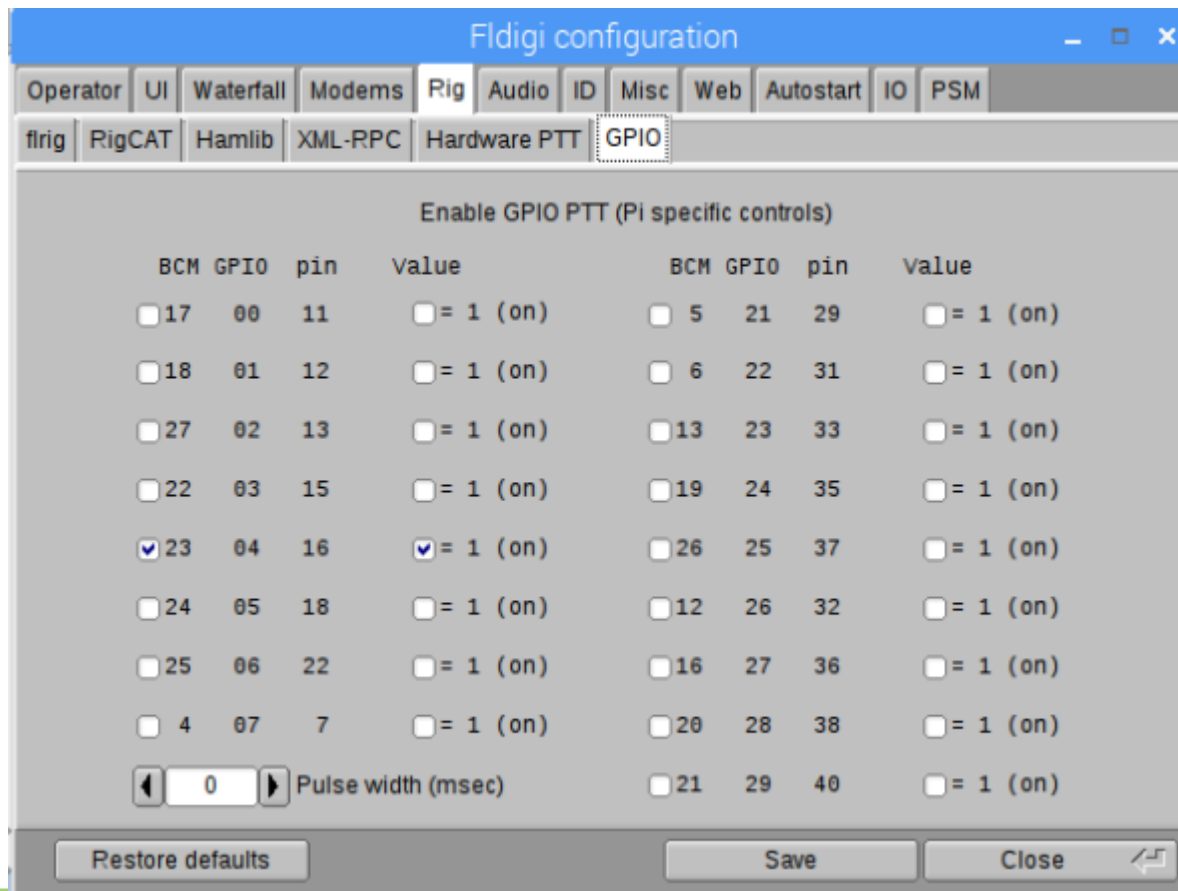
The screenshot displays a Raspberry Pi desktop environment with the following elements:

- File Manager:** A window titled "rigs" showing the directory path `/home/pi/.fldigi/rigs`. The "Directory Tree" on the left lists folders such as `.cache`, `.config`, `.cups`, `.dbus`, `.fldigi`, `avatars`, `data`, `help`, `images`, `kml`, `logs`, `LOTW`, `macros`, `palettes`, `rigs` (highlighted), and `scripts`. The main pane shows a file named `FT-817.xml`.
- VNC Viewer:** A window titled "192.168.1.6 (compass) - VNC Viewer" showing a desktop menu with categories like Programming, Office, Internet, Games, Other, Accessories, Education, Sound & Video, System Tools, Help, Preferences, Run..., and Shutdown. The "Accessories" menu is open, showing options for Archiver, Calculator, and CuteSdr.
- Xarchiver 0.5.4:** A window titled "Xarchiver 0.5.4" with a menu bar (Archive, Action, Help) and a toolbar. It features a "Location:" input field, an "Archive tree" section, and a status bar at the bottom that reads "Select 'New' to create or 'Open' to open an archive".



Fldigi, setup screens

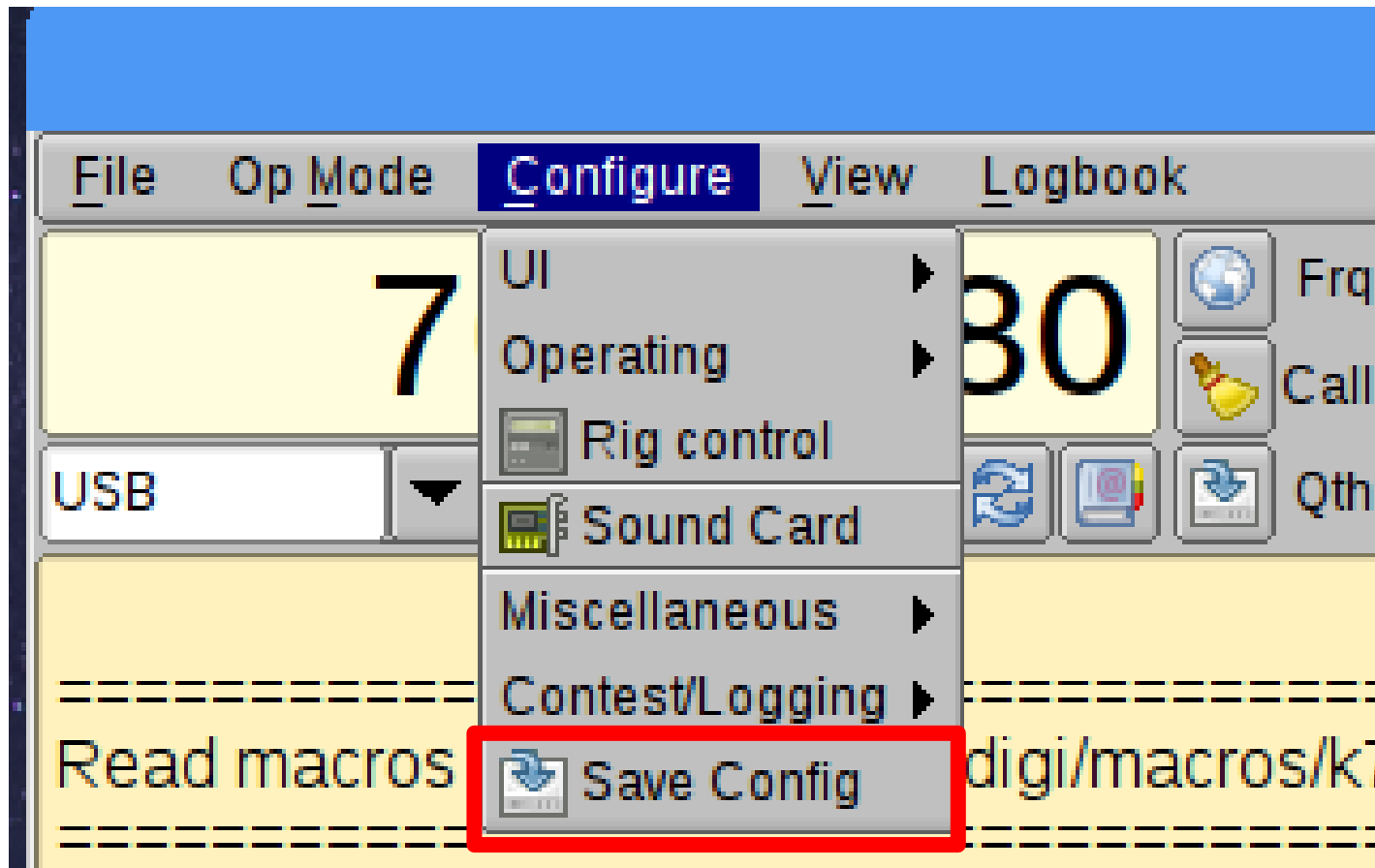
- Rig – GPIO for PTT
 - BCM 23 & 1 On for 6 Pin connector
 - BCM 12 & 1 On for 15 pin connector

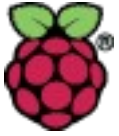




Fldigi, Save Config

- **Save** your hard work





Alsamixer, receive audio level control

```
pi@compass: ~
File Edit Tabs Help
AlsaMixer v1.0.28
Card: udrc
Chip:
View: F3: Playback F4: Capture F5: [All]
Item: PCM [dB gain: -25.00, -25.00]
F1: Help
F2: System information
F6: Select sound card
Esc: Exit

12<>12
< PCM > Mic PGA ADC Level ADC Level ADCFGA L ADCFGA R AGC Atta AGC Atta
MM MM MM 0<>0 0<>0
```

UDRC receive level control



Alsamixer, transmit audio level control

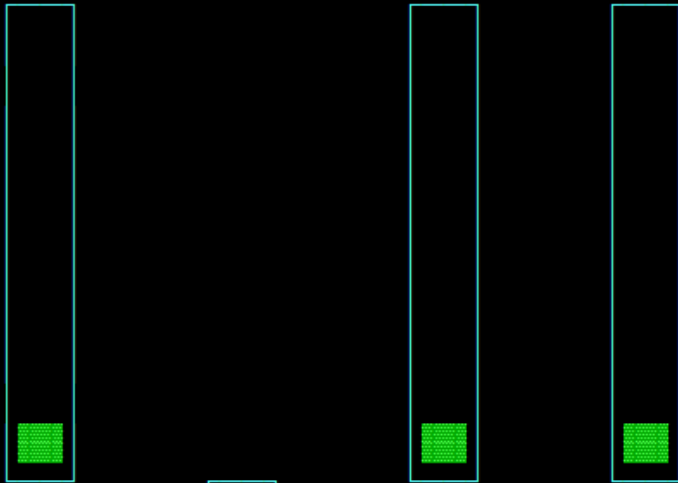
Left END

pi@compass

File Edit Tabs Help

AlsaMixer v1.

```
Card: udrc
Chip:
View: F3: Playback F4: Capture F5: [All]
Item: PCM [dB gain: -25.00, -25.00]
```



MM

12<>12

9<>9

9<>9

< PCM Mic PGA ADC Leve ADC Leve ADCP

UDRC transmitter level control
Adjust for proper ALC
Do not overdrive the transmitter, or spatter

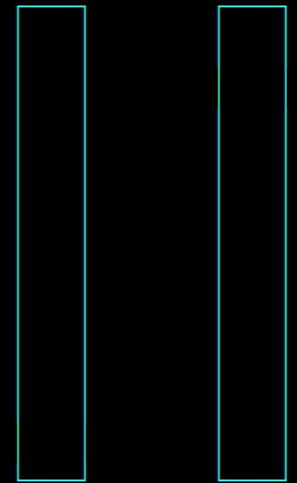
Right END

pi@compass: ~

os Help

AlsaMixer v1.0.28

```
udrc
View: F3: Playback F4: Capture F5: [All]
LO Driver Gain [dB gain: -6.00, -6.00]
```



off

00

0<>0

0<>0

R to IN3_R to LO DAC <LO Drive> LO Drive L

LO Drive to 0

sudo alsactl store





Fldigi, setup screens

- Macros, right click on button to open editor
 - Save macro file, have several

Macro editor - /home/pi/.fldigi/macros/k7age macros.mdf

Macro Text

```
<TX>
CQ CQ CQ de <MYCALL> <MYCALL> <MYCALL>
CQ CQ CQ de <MYCALL> <MYCALL> <MYCALL> pse k
<RX>
```

Select Tag

- <FREQ> my frequency
- <MODE> mode
- <MYCALL> my call
- <MYLOC> my locator
- <MYNAME> my name
- <MYQTH> my QTH
- <MYRST> my RST
- <MYCLASS> my FD class
- <MYSECTION> my FD section
- <ANTENNA> mv antenna

Macro Button Label: CQ @>|

File menu: Macros (selected), Save ... (highlighted)

fldigi ver4.0.4 - K7AGE

View menu: View/Hide 48 macros (highlighted)

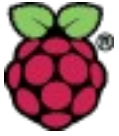
Frequency: 7070

Buttons: CQ, ANS, QSO, KN, SK, Me/Qth, Brag, T/R, Tx, Rx, TX



NBEMS

- Narrow Band Emergency messaging system
 - Fldigi
 - Core modem program for data transmission
 - Links to other NBEMS programs
 - Includes FLarq
 - Flmsg, FL message
 - ICS forms, Radiogram, CSV messages
 - Flamp,
 - Multicast file protocol, sends in blocks with checksum
 - Provides for repeat request of missing blocks
 - Flwrap, FL file wrapper
 - Wraps file with checksum for error detection



NBEMS Configuration

The screenshot shows the 'NBEMS' tab in the Fldigi configuration window. The 'NBEMS data file interface' section has 'Enable' and 'Open message folder' checked. The 'Reception of flmsg files' section has 'Transfer direct to executing flmsg', 'Open with flmsg', and 'Open in browser' checked. The 'flmsg' field is set to '/usr/local/bin/flmsg' with a 'Locate flmsg' button. A 'Timeout (secs)' slider is set to 2.0. At the bottom are 'Restore defaults', 'Save', and 'Close' buttons.

The screenshot shows the 'Autostart' tab in the Fldigi configuration window. It lists programs to be auto-started with Fldigi. The 'flamp' and 'Prog 1' fields are set to '/usr/local/bin/flwrap'. The 'flamp' and 'Prog 1' 'Enable' checkboxes are checked. 'Locate' buttons are present for each program. At the bottom are 'Restore defaults', 'Save', and 'Close' buttons.

- NBEMS, check all, locate Flmsg
- Autostart, Locate Flmsg and Flwrap



Flmsg

- Used to send and receive message forms

FLMSG: 4.0.2

File Form Template Config AutoSend ARQ Help

ARRL radiogram file: 1.m2s

Message Records

SVC *NR 1 *PREC ROUTINE HX *STN ORIG K7AGE CK 18

PLACE OF ORIG TIME FILED *MON DY

REMOTE 0903L MAY 21

*TO K7AGE TEL: OP NOTE: TEST MESSAGE

Standard Format

TXT:

HI RECEIVED MESSAGE OK X
WATER IS BEING SEND X
ETA 3 PM HOPE ALL
GOES WELL RANDY

SIG: OP NOTE:

Comp MT63-2KL 341 bytes / 28 secs

FLMSG: 4.0.2

File Tools

Form Template Config

Drag-n-Drop

Blank

CAP

CSV

Custom

Ham Forms

HICS

IARU

ICS

MARS

Plaintext

Radiogram

Red Cross

Transfer

Weather

ICS203

ICS205

ICS205A

ICS206

ICS213

ICS214

ICS216

ICS309



Fmsg - configuration

fmsg config

Personal | Date/Time | Files | Radiogram | ARQ | UI

Call: K7AGE

Tel: 530-615-6739

Name: Randy

Addr: PO Box 1874

City/St/Zip: Gold Beach Or

Email addr: k7age@k7age.com

fmsg config

Personal | Date/Time | Files | Radiogram | ARQ | UI

Wrap

Open folder when exporting

Naming Files

Date-time

Callsign Local time, L

Serial # 1 Next #

MARS roster file

MARS_ROSTER.csv Find

Html message text

Word wrap at 72 characters

fmsg config

Personal | Date/Time | Files | Radiogram | ARQ | UI

Fldigi xmlrpc Addr: 127.0.0.1

Fldigi xmlrpc Port: 7362

Retries: 5 Block Size: 32

Enable ID/RxID

Disable ID/RxID after connect

Restore ID/RxID

Open Browser

Sync modem to fldigi

Change modem with autosend

Defaults

fmsg config

Personal | Date/Time | Files | Radiogram | ARQ | UI

User Interface = expert





Flmsg, sending

The image shows two software windows side-by-side. The left window is titled 'FLMSG: 4.0.2' and contains a form for creating an ARRL radiogram. The right window is titled 'fldigi ver4.0.2 - K7AGE' and shows a digital frequency display at 14070.000 and a log window with transmission details.

FLMSG: 4.0.2

ARRL radiogram file: K7AGE-3.m2s

Message Records

SVC *NR *PREC HX *STN ORIG CK
 1 ROUTINE hx K7AGE 12 ck

PLACE OF ORIG TIME FILED *MON DY
GOLD BEACH OR 1029L ... MAY 21 ...

*TO
K7AGE

TEL: 5306156739

OP NOTE: TEST MESSAGE

Standard Format ARL MSG

TXT:
WE ARE OUT OF WATER
BOTTLES DOT PLEASE SEND MORE
RIGHT AWAY

SIG: RANDY OP NOTE: SAMPLE

Comp MT63-2KL * 368 bytes / 29 secs

fldigi ver4.0.2 - K7AGE

14070.000

Frq 14071.510 On Off 1735 In Out
Call Op Az
Qth St Pr Loc

RIGHT AWAY

:sig:5 RANDY
:op:6 SAMPLE
:ck:2 12
:sta:5 K7AGE
:org:13 GOLD BEACH OR
:svc:1 F
:std:1 T
[WRAP:checksum CF52][WRAP:end]
... end

^r

CQ H ANS H QSO H KN H SK H Me/Qth Brag T/R Tx H Rx H TX H 1

500 1000 1500 2000 2500 3000

WF -20 70 x1 NORM 1510 QSY Store Lk Rv T/R

MT63-2KL -3.0 AFC SQL



Flmsg, receiving

192.168.1.11 (compass) - VNC Viewer

FLMSG: 4.0.2

ARRL radiogram file: K7AGE-3.m2s

SVC *NR *PREC HX *STN ORIG CK
 1 ROUTINE hx K7AGE 12 ck

PLACE OF ORIG TIME FILED *MON DY
 GOLD BEACH OR 1029L MAY 21

*TO
 K7AGE TEL: 5306156739
 OP NOTE: TEST MESSAGE

TXT:
 WE ARE OUT OF WATER
 BOTTLES DOT PLEASE SEND MORE
 RIGHT AWAY

7070.000

Frq 7071.510 On Off 1737 In Out
 Call Op Az
 Qth St Pr L C

USB

:opn:12 TEST MESSAGE
 :msg:60 WE ARE OUT OF WATER
 BOTTLES DOT PLEASE SEND MORE
 RIGHT AWAY

:sig:5 RANDY
 :op2:6 SAMPLE
 :ck:2 12
 :sta:5 K7AGE
 :org:13 GOLD BEACH OR
 :svc:1 F
 :std:1 T
 [WRAP:chksum CF52][WRAP:end]
 ... end

recv

File Edit View Bookmarks Go Tools Help

/home/pi/.nbems/WRAP/recv

Directory Tree

- recv
 - <No subfolders>
 - send
 - .npm
 - .pki
 - .themes
 - .vnc
 - bin
 - Desktop
 - Documents
 - Downloads
 - Music
 - n7nix

extract-201 70521-1552 39.wrap
 extract-201 70521-1626 35.wrap
 extract-201 70521-1734 28.wrap

3 items Free space: 9.4 GiB (Total: 14.4 GiB)

radiogram - Chromium

file:///home/pi/.nbems/ICS/radiogram.html

THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
 VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
1	ROUTINE		K7AGE	12	GOLD BEACH OR	1029L	MAY 21

TO
 K7AGE

THIS RADIO MESSAGE WAS RECEIVED AT
 K7AGE 530-615-67369
 Randy
 PO Box 1872
 Gold Beach Or

PHONE NUMBER
 5306156739

WE ARE OUT OF WATER
 BOTTLES DOT PLEASE SEND MORE
 RIGHT AWAY

RANDY

Flwrap 1.3.4

Usage: flwrap [--usecomp] FILENAME or
 (1) Drag & Drop File onto desktop icon
 (2) Drag & Drop File into drop box ==>

Compress Close *Drop file here*



Flamp

- File transfer
 - Breaks up file into blocks with checksum
 - Receiving station is able to ask for re-send of missing blocks

FLAMP: 2.2.03

File Script Help

Receive Transmit Events Configure

File:

Date time: Save

Description: Remove

Call/info

bytes Nbr blks Blk size To TxQ

Missing Report

Blocks

Data

Relay Fetch blocks

Receive Queue Auto save on 100% reception

FLAMP: 2.2.03

File Script Help

Receive Transmit Events Configure

Callsign

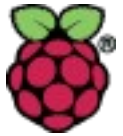
Info

- Auto sync fldigi to flamp mode selector
- Auto sync flamp to fldigi mode selector
- Change fldigi mode just prior to transmit
- Enable Tx on Report
- Warn User when removing files from Queue
- Clear Missing Blocks on Non-Canceled Transmit(s)
- Inhibit header modem on block fills
- Mark start/end of unproto data
- Auto save subfolders in local time, otherwise UTC
- Enable header modem (Sync flamp to fldigi ignored)

- Enable TX/RX Interval

Tx Duration Mins

Rx Duration Secs

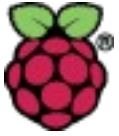


Would you like to send this by voice?

- I didn't think so. Use Flamp
 - Send as .csv file. Install LibreOffice, if not installed

The screenshot shows a LibreOffice Calc spreadsheet titled 'medications.ods'. The spreadsheet contains a table with 10 rows of patient data. The columns are labeled A through F, corresponding to the headers: Last, First, Phone number, Medication, and Dose. The data is as follows:

	A	B	C	D	E	F
1	Last	First	Phone number	Medication	Dose	
2	Bloggs	Fred	123-456-0789	Cyclobenzaprine	100 mg	
3	Smith	John	456-789-1230	Hydrochlorothiazide	50 mg	
4	Jones	Lorri	147-025-8369	Amitriptyline	75 mg	
5	Meyer	Paul	369-984-1258	Pantoprazole	300 mg	
6	Creek	Sam	512-753-9248	Zolpidem	100 mg	
7	George	Tom	415-546-1397	Xopenex	10 mg	
8	Hess	Pat	818-569-4826	Acetaminophen	50 mg	
9	Johnson	Steve	213-587-8564	Spironolactone	1000 mg	
10	Ross	Elmer	569-421-1136	Garcinia Cambogia	250 mg	
11						



Sending from Pi to pc

Pi

Windows

fldigi ver4.0.4 / Hamlib FT-817 - K7AGE

147420.000

Frq 147421.504 On Off 2121 In Out

Call Op Az

PKTFM Qth St Pr L C

Creek, Sam, 512-753-9248, Zolpid
<DATA 72 C2D4>{83C6:5}em, 100 mg
George, Tom, 415-546-1397, Xopenex, 10 mg
Hess, Pat, 818-569
<DATA 72 1872>{83C6:6}-4826, Acetaminophen, 50 mg
Johnson, Steve, 213-587-8564, Spironolact
<DATA 69 57BE>{83C6:7}one, 1000 mg
Ross, Elmer, 569-421-1136, Garcinia Cambogia, 250 mg

<CNTL 10 C40A>{83C6:EOF}
<CNTL 10 6406>{83C6:EOT}

DE K7AGE K

FLAMP: 2.2.03

File Script Help

Receive Transmit Events Configure

Send to: QST

File: medications.csv

Descrip:

Blk size: 64 Xmt Rpt: 1 Hdr Rpt: 1 # Bks: 7

base256 MT63-2KL 816 bytes / 48 secs

Comp Transmit unproto (plain text, 7bit ASCII)

blocks Fetch

Transmit Queue Xmit Xmt All Remove Add DnD

/home/pi/Desktop/medications.csv

fldigi ver4.0.2 - K7AGE

147420.000

Frq 147421.504 On Off 2121 In Out

Call Op Az

Qth St Pr Loc

Ross, Elmer, 569-421-1136, Garcinia Cambogia, 250 mg

<CNTL 10 C40A>{83C6:EOF}
<CNTL 10 6406>{83C6:EOT}

DE K7AGE K

FLAMP: 2.2.03

File Script Help

Receive Transmit Events Configure

File: medications.csv

Date time: 20170521191445 Save

Description: Remove

Call/info: K7AGE Randy

bytes: 445 Nbr blks: 7 Blk size: 64 To TxQ

Missing: Report

Blocks

Data

Last, First, Phone number, Medication, Dose

Bloggs, Fred, 123-456-0789, Cyclobenzaprine, 100 mg

Smith, John, 456-789-1230, Hydrochlorothiazide, 50 mg

Jones, Lorri, 147-025-8369, Amitriptyline, 75 mg

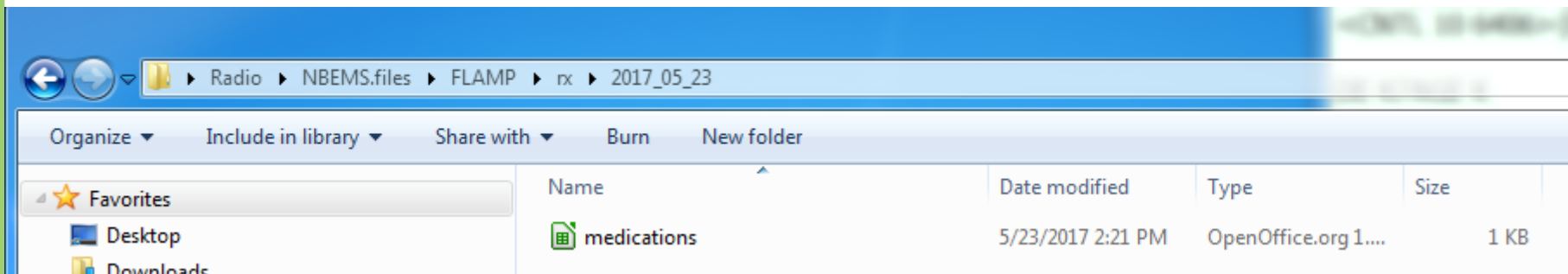
Relay Fetch blocks

Receive Queue Auto save on 100% reception

100 % 83C6 medications.csv



File / Folders / NBEMS files



medications.csv - LibreOffice Calc

File Edit View Insert Format Sheet Data Tools Window Help

Liberation Sans 10

A1 Last

	A	B	C	D	E
1	Last	First	Phone number	Medication	Dose
2	<u>Bloggs</u>	Fred	123-456-0789	<u>Cyclobenzaprine</u>	100 mg
3	Smith	John	456-789-1230	<u>Hydrochlorothiazide</u>	50 mg
4	Jones	<u>Lorri</u>	147-025-8369	<u>Amitriptyline</u>	75 mg
5	Meyer	Paul	369-984-1258	<u>Pantoprazole</u>	300 mg
6	Creek	Sam	512-753-9248	<u>Zolpidem</u>	100 mg
7	George	Tom	415-546-1397	<u>Xopenex</u>	10 mg
8	Hess	Pat	818-569-4826	Acetaminophen	50 mg
9	Johnson	Steve	213-587-8564	<u>Spirolactone</u>	1000 mg
10	Ross	Elmer	569-421-1136	<u>Garcinia Cambogia</u>	250 mg
11					
12					

52 seconds using MT63-2KL

??? minutes using voice



Fldigi Workshop Session

- So much to try and cover in a short time
- You will now need to go home and practice
 - Interface a radio to your Pi and
 - Test communicating with Fldigi/NBEMS on your PC
- Digital nets:
 - ORCA Tuesdays 19:30 3.581 MHz MFSK32
 - ODN Fridays 20:00 ???
- Thanks,
- And have fun with your Pi
- Backup your memory card!
- Time for a demo?

