

```
# Please do not change the configuration file  
quisk_conf_defaults.py.  
# Instead copy one of the other quisk_conf_*.py files to  
your own  
# .quisk_conf.py and make changes there. For a  
normal sound card  
# configuration, copy quisk_conf_model.py to  
your .quisk_conf.py.  
#  
# Quisk imports quisk_conf_defaults to set its  
configuration.  
# If you have a configuration file, it then overwrites the  
defaults  
# with your parameters. Your configuration file must be  
named  
# ~/.quisk_conf.py, where “~” means your home  
directory. Or  
# you may specify a different name with the -c or –  
config command  
# line option. Try –help. Check the config screen to  
make sure that  
# the correct configuration file is in use.  
#  
# The Quisk receiver can use a high quality sound card  
for capture and playback,  
# or it can use the SDR-IQ by RfSpace for capture and  
a lower quality  
# sound card for playback. Quisk can also be used as a
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panadapter.

Quisk can control some rigs. See
quisk_hardware_.py. If you have a rig*
to control, copy one of the quisk_hardware_.py files*
to your own file named
quisk_hardware.py, and edit that file. If there is no
quisk_hardware.py, then
quisk_hardware_model.py is used instead.

```
import sys  
# Import the default Hardware module. You can import  
a different module in  
# your .quisk_conf.py.  
#import quisk_hardware_model as quisk_hardware  
from softrock import hardware_usb as quisk_hardware  
usb_vendor_id = 0x16c0  
usb_product_id = 0x05dc  
softrock_model = "RxEnsemble2"  
# Module for additional widgets (advanced usage).  
quisk_widgets = None  
# Select the default screen when Quisk starts:  
#default_screen = 'Graph'  
default_screen = 'WFall'  
#default_screen = 'Config'  
# The width of the graph data as a fraction of the total  
screen size. This  
# will be adjusted by Quisk to accommodate preferred  
FFT sizes. It can  
# not be changed once Quisk starts. It can not be made
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*too small because
of the space needed for all the buttons.
graph_width = 0.8
This controls the speed of the graph peak hold.
Lower numbers give a longer time constant.
graph_peak_hold_1 = 0.25
graph_peak_hold_2 = 0.10
Select the default mode when Quisk starts (overruled
by persistent_state):
default_mode = 'FM'
default_mode = 'LSB'
Select the way the waterfall screen scrolls:
waterfall_scroll_mode = 0 # scroll at a constant rate.
waterfall_scroll_mode = 0 # scroll faster at the top so
that a new signal appears sooner.
Select the initial size in pixels (minimum 1) of the
graph at the top of the waterfall.
waterfall_graph_size = 135
These are the initial values for the Y-scale and Y-zero
sliders for each screen.
The sliders go from zero to 160.
graph_y_scale = 100
graph_y_zero = 0
waterfall_y_scale = 20
waterfall_y_zero = 0
waterfall_graph_y_scale = 100
waterfall_graph_y_zero = 60
scope_y_scale = 80*

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scope_y_zero = 0 # Currently doesn't do anything
filter_y_scale = 90
filter_y_zero = 0
# Quisk can save its current state in a file on exit, and
# restore it when you restart.
# State includes band, frequency and mode, but not
# every item of state (not screen).
# The file is .quisk_init.pkl in the same directory as your
# config file. If this file
# becomes corrupted, just delete it and it will be
# reconstructed.
#persistent_state = False
persistent_state = True
# This converts from dB to S-units for the S-meter (it is
# in S-units).
correct_smeter = 15.5
# This is the fraction of spectrum to display from zero to
# one. It is needed if
# the passband edges are not valid. Use 0.85 for the
# SDR-IQ.
display_fraction = 1.00
# Quisk has record and playback buttons to save radio
# sound. If there is no more room for
# sound, the old sound is discarded and the most
# recent sound is retained. This controls
# the maximum length of sound storage in minutes. If
# you want to transmit recorded sound,
# then mic_sample_rate must equal playback_rate and
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both must be 48000.  
max_record_minutes = 0.25  
# Thanks to Steve Murphy, KB8RWQ for the patch  
adding additional color control.  
# Define colors used by all widgets in wxPython colour  
format:  
#color_bg = 'light steel blue' # Lower screen  
background  
#color_graph = 'lemonchiffon1' # Graph background  
#color_config2 = 'lemonchiffon3' # color in tab row of  
config screen  
#color_gl = 'grey' # Lines on the graph  
#color_graphticks = 'black' # Graph ticks  
#color_graphline = '#005500' # graph data line color  
#color_graphlabels = '#555555' # graph label color  
#color_btn = 'steelblue2' # button color  
#color_check_btn = 'yellow2' # color of a check button  
when it is checked  
#color_cycle_btn = 'goldenrod3' # color of a cycle  
button when it is checked  
#color_adjust_btn = 'orange3' # color of an adjustable  
button when it is checked  
#color_test = 'hot pink' # color of a button used for test  
(turn off for tx)  
#color_freq = 'lightcyan1' # background color of  
frequency and s-meter  
#color_entry = color_freq # frequency entry box  
#color_enable = 'black' # text color for an enabled
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button
#color_disable = 'white' # text color for a disabled
button
#color_bandwidth = 'lemonchiffon2' # color for
bandwidth display; thanks to WB4JFI
#color_bandwidth = 'lemonchiffon3'
#color_txline = 'red' # vertical line color for tx in graph
#color_rxline = 'green' # vertical line color for rx in
graph
# This is a dark color scheme designed by Steve
Murphy, KB8RWQ.
#color_bg = '#111111'
#color_graph = '#111111'
#color_config2 = color_bg
#color_gl = '#555555'
#color_graphticks = '#DDDDDD'
#color_graphline = '#00AA00'
#color_graphlabels = '#FFFFFF'
#color_btn = '#666666'
#color_check_btn = '#996699'
#color_cycle_btn = '#666699'
#color_adjust_btn = '#669999'
#color_test = 'hot pink'
#color_freq = '#333333'
#color_entry = color_freq
#color_enable = 'white'
#color_disable = 'black'
#color_bandwidth = '#333333'
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#color_txline = 'red'  
#color_rxline = 'green'  
# This is a dark colour scheme modified by VK5FSCK  
based on designed by Steve Murphy, KB8RWQ.  
color_bg = '#111111'  
color_graph = '#111111'  
color_config2 = color_bg  
color_gl = '#555555'  
color_graphticks = '#DDDDDD'  
color_graphline = '#00AA00'  
color_graphlabels = '#FFFFFF'  
color_btn = '#4D4D4D'  
color_check_btn = '#0000FF'  
color_cycle_btn = '#666699'  
color_adjust_btn = '#669999'  
color_test = 'red'  
color_freq = '#333333'  
color_entry = color_freq  
color_enable = 'white'  
color_disable = 'black'  
color_bandwidth = '#333333'  
color_txline = 'red'  
color_rxline = 'green'  
filter_display = 1 # Display the filter bandwidth on the  
graph screen; 0 or 1; thanks to WB4JFI  
# These are the palettes for the waterfall. The one used  
is named waterfallPalette,  
# so to use a different one, overwrite this name in
```

```
your .quisk_conf.py.
waterfallPalette = (
( 0, 0, 0, 0),
( 36, 85, 0, 255),
( 73, 153, 0, 255),
(109, 255, 0, 128),
(146, 255, 119, 0),
(182, 85, 255, 100),
(219, 255, 255, 0),
(255, 255, 255, 255)
)
digipanWaterfallPalette = (
( 0, 0, 0, 0),
( 32, 0, 0, 62),
( 64, 0, 0, 126),
( 96, 145, 142, 96),
(128, 181, 184, 48),
(160, 223, 226, 105),
(192, 254, 254, 4),
(255, 255, 58, 0)
)
# Quisk can access your sound card through PortAudio
or through ALSA drivers.
# In PortAudio, soundcards have an index number 0, 1,
2, ... and a name.
# The name can be something like "HDA NVidia:
AD198x Analog (hw:0,0)" or
# "surround41". In Quisk, all PortAudio device names
```

start with “portaudio”.

A device name like “portaudio#6” directly specifies the index. A name like

“portaudio:text” means to search for “text” in all available devices. And

there is a default device “portaudiodefaut”. So these portaudio names are useful:

#name_of_sound_capt = “portaudio:(hw:0,0)” # First sound card

#name_of_sound_capt = “portaudio:(hw:1,0)” # Second sound card, etc.

#name_of_sound_capt = “portaudio#1 ” # Directly specified index

#name_of_sound_capt = “portaudiodefaut” # May give poor performance on capture

In ALSA, soundcards have these names. The “hw” devices are the raw

hardware devices, and should be used for soundcard capture.

#name_of_sound_capt = “hw:0” # First sound card

#name_of_sound_capt = “hw:1 ” # Second sound card, etc.

#name_of_sound_capt = “plughw”

#name_of_sound_capt = “plughw:1 ”

#name_of_sound_capt = “default”

Normally you would capture and play on the same soundcard to avoid problems with the

two clocks running at slightly different rates. But you

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can define name_of_sound_play
# to play back on a different device. Define this as the
empty string "" to turn off
# play (for a panadapter).
#
# For the SDR-IQ the soundcard is not used for
capture; it only plays back audio.
# Quisk has a custom decimation scheme for each
sample rate. The allowable sample rates
# are the four SDR-IQ rates plus 24, 48, 96, 192, 240,
384, 480, and 960 ksps. Other rates
# can be added.
# Configuration for soundcard capture and playback
use_sdriq = 0 # Get ADC samples from SDR-IQ is not
used
use_rx_udp = 0 # Get ADC samples from UDP is not
used
sample_rate = 48000 # ADC hardware sample rate in
Hertz
if sys.platform == "win32":
name_of_sound_capt = "Primary"
else:
name_of_sound_capt = "hw:0" # Name of soundcard
capture hardware device.
name_of_sound_play = "hw:0" # Use the same device
for play back
#name_of_sound_play = "" # Panadapter: Do not play
channel_i = 0 # Soundcard index of in-phase channel:
```

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0, 1, 2, ...
channel_q = 1 # Soundcard index of quadrature
channel: 0, 1, 2, ...
# Thanks to Franco Spinelli for this fix:
# The H101 hardware using the PCM2904 chip has a
one-sample delay between
# channels, which must be fixed in software. If you
have this problem,
# change channel_delay to either channel_i or
channel_q. Use -1 for no delay.
channel_delay = -1
# This is for mic playback (SoftRock transmit):
tx_channel_delay = -1
# If you use a soundcard with Ethernet control of the
VFO, set these parameters:
rx_ip = "" # Receiver IP address for VFO control
# If you use an SDR-IQ for capture, see the sample
config file quisk_conf_sdriq.py.
# For the N2ADR 2010 transceiver described in QEX,
and for the improved version HiQSDR,
# see the sample config file in the hiqsdr package
directory, and set these:
# tx_level sets the transmit level 0 to 255 for each
band. The None band is the default.
tx_level = {None:120, '60':110}
# Mode DGTL uses this instead of tx_level, so you can
reduce the power.
digital_tx_level = 20
```

```
# If you use the HiQSDR hardware, set these:
# The HiQSDR_BandDict sets the preselect (4 bits) on
the X1 connector.
HiQSDR_BandDict = {'160':1, '80':2, '40':3, '30':4,
'20':5, '15':6, '17':7,
'12':8, '10':9, '6':10, '500k':11, '137k':12 }
# For the original N2ADR hardware set this:
# use_rx_udp = 1
# For the newer HiQSDR hardware set this:
# use_rx_udp = 2
# Thanks to Ethan Blanton, KB8OJH, for this patch for
the Si570 (many SoftRock's):
# If you are using a DG8SAQ interface to set a Si570
clock directly, set
# this to True. Complex controllers which have their
own internal
# crystal calibration do not require this.
si570_direct_control = True
# This is the Si570 startup frequency in Hz.
114.285MHz is the typical
# value from the data sheet; you can use 'usbsoftrock
calibrate' to find
# the value for your device.
si570_xtal_freq = 114213790
# This is the received radio sound playback rate. The
default will
# be 48 kHz for the SDR-IQ and UDP port samples,
and sample_rate for sound
```

card capture. Set it yourself for other rates or hardware.

The playback_rate must be 24000, 48000, 96000 or 192000.

The preferred rate is 48000 for use with DGTL and transmit of recorded audio.

playback_rate = 48000

If you use quisk_hardware_fixed.py, this is the fixed VFO frequency in Hertz

fixed_vfo_freq = 7056000

Some hardware must be polled to get the key up/down state. This is the time

between polls in milliseconds. Use zero to turn off the poll.

key_poll_msec = 0

This determines what happens when you tune by dragging the mouse. The correct

choice depends on how your hardware performs tuning. You may want to use a

custom hardware file with a custom ChangeFrequency() method too.

mouse_tune_method = 0 # The Quisk tune frequency changes and the VFO frequency is unchanged.

#mouse_tune_method = 1 # The Quisk tune frequency is unchanged and the VFO changes.

If freq_spacing is not zero, frequencies are rounded to the freq_base plus the

*# freq_spacing; frequency = freq_base + N **

*freq_spacing. This is useful at
VHF and higher when Quisk is used with a
transverter.
freq_spacing = 0
freq_base = 0
This is the CW tone frequency in Hertz
cwTone = 600
The "DGTL" mode mostly acts like USB, but it sends
received audio to an external
program that can decode digital modes, and receives
audio to transmit.
The only program currently supported is Fldigi. Set
Fldigi to USB, XML-RPC control.
digital_xmlrpc_url = "http://localhost:7362" # URL for
control by XML-RPC
Input audio from an external program for use with
mode DGTL. The input must be
stereo at 48000 sps, and you must set
mic_sample_rate to 48000 also.
digital_input_name = "" # device name for transmit
audio
digital_input_name = 'hw:Loopback,0'
Output audio to an external program for use with
mode DGTL. The output is
stereo at the same sample rate as the radio sound
playback.
digital_output_name = "" # device name for received
audio*

```
# digital_output_name = digital_input_name
# You can control Quisk from Hamlib. Set the Hamlib
rig to 2 and the device for rig 2 to
# localhost:4575, or other hamlib_port as used by
Quisk.
hamlib_port = 4575 # Standard port for Quisk control.
Set the port in Hamlib to 4575 too.
#hamlib_port = 4532 # Default port for rig 2. Use this if
you can not set the Hamlib port.
#hamlib_port = 0 # Turn off Hamlib control.
# If you use the microphone feature, the mic_channel_I
and Q are the two capture
# microphone channels. Quisk uses a monophonic mic,
so audio is taken from the I
# channel, and the Q channel is (currently) ignored. It is
OK to set the same
# channel number for both, and this is necessary for a
USB mono mic. The mic sample rate
# should be 48000 to enable DGTL and the sound
recorder to work, but 8000 can be used.
# Mic samples can be sent to an Ethernet device (use
tx_ip and name_of_mic_play = "")
# or to a sound card (use name_of_mic_play="hw:1" or
other device).
# If mic samples are sent to a sound card for Tx, the
samples are tuned to the audio
# transmit frequency, and are set to zero unless the key
is down.
```

*# If there is no mic (microphone_name = ""), it is still possible to transmit CW,
and you should set mic_playback_rate to the I/Q receive capture rate.
Microphone capture:
microphone_name = "" # Name of microphone capture device (or "hw:1")
mic_sample_rate = 48000 # Microphone capture sample rate in Hertz, should be 48000, can be 8000
mic_channel_I = 0 # Soundcard index of mic capture audio channel
mic_channel_Q = 0 # Soundcard index of ignored capture channel
Microphone samples sent to soundcard:
name_of_mic_play = "" # Name of play device if mic I/Q is sent to a sound card
mic_playback_rate = 48000 # Playback rate must be a multiple 1, 2, ... of mic_sample_rate
mic_play_chan_I = 0 # Soundcard index of mic I play channel
mic_play_chan_Q = 1 # Soundcard index of mic Q play channel
mic_out_volume = 0.7 # Microphone output volume (after all processing) as a fraction 0.0 to 0.7
Microphone samples sent to UDP:
tx_ip = "" # Transmit IP address for mic sent to UDP (or "192.168.2.195")
tx_audio_port = 0 # UDP port for mic samples (or*

```
0x553B)
# Microphone audio processing:
# The original audio processing used mic_clip = 4.0;
mic_preemphasis = -1.0
# For no mic audio processing, use mic_clip = 1.0;
mic_preemphasis = 0.0
mic_clip = 3.0 # Mic amplitude clipping; larger numbers
give more clipping
mic_preemphasis = 0.6 # Mic pre-emphasis 0.0 (none)
to 1.0; or -1.0 for a Butterworth filter
# If your mixing scheme inverts the RF spectrum, set
this option to un-invert it
invertSpectrum = 0
# Use "amixer -c 1 contents" to get a list of mixer
controls and their numid's for
# card 1 (or "-c 0" for card 0). Then make a list of
(device_name, numid, value)
# for each control you need to set. The sample settings
are for my USB microphone.
#mixer_settings = [
# ("hw:1", 2, 0.80), # numid of microphone volume
control, volume 0.0 to 1.0;
# ("hw:1", 1, 1.0) # numid of capture on/off control, turn
on with 1.0;
# ]
# If you want Quisk to add a button to generate a 2-
tone IMD test signal,
# set this to 1. This feature requires the microphone to
```

work.

```
add_imd_button = 0
# If you want Quisk to add a full duplex button (transmit
and receive at the
# same time), set this to 1.
add_fdx_button = 0
# If you want to write your own I/Q filter and
demodulation module, set
# this to the name of the button to add, and change
extdemod.c.
# add_extern_demod = "WFM"
add_extern_demod = ""
# These are the suppressed carrier frequencies for 60
meters
freq60 = (5330500, 5346500, 5357000, 5371500,
5403500)
# These are the filter bandwidths for each mode. Quisk
has built-in optimized filters
# for these values, but you can change them if you
want.
FilterBwCW = (200, 400, 600, 1000, 1500, 3000)
FilterBwSSB = (2000, 2200, 2500, 2800, 3000, 3300)
FilterBwAM = (4000, 5000, 6000, 8000, 10000, 9000)
FilterBwFM = (8000, 10000, 12000, 15000, 17000,
20000)
FilterBwIMD = FilterBwSSB
FilterBwEXT = (8000, 10000, 12000, 15000, 17000,
20000)
```

This is the data used to draw colored lines on the frequency X axis to indicate CW and Phone sub-bands. You can make it anything you want.

These are the colors used for sub-bands:

CW = '#FF4444' # General class CW

eCW = '#FF8888' # Extra class CW

Phone = '#4444FF' # General class phone

ePhone = '#8888FF' # Extra class phone

ARRL band plan special frequencies

Data = '#FF9900'

DxData = '#CC6600'

RTTY = '#FF9900'

SSTV = '#FFFF00'

AM = '#00FF00'

Packet = '#00FFFF'

Beacons = '#66FF66'

Satellite = '#22AA88'

Repeater = '#AA00FF' # Repeater outputs

ReplInput = '#AA88FF' # Repeater inputs

Simplex = '#00FF44'

Special = 'hot pink'

Other = '#888888'

Colors start at the indicated frequency and continue until the next frequency. The special color "None" turns off color.

#

To change BandPlan in your config file, first remove any frequencies in the range # you want to change; then add your frequencies; and then sort the list. Or you could just # replace the whole list.

```
BandPlan = [  
# Test display of colors  
#[ 0, CW], [ 50000, eCW], [ 100000, Phone], [ 150000, ePhone], [ 200000, Data], [ 250000, DxData], [ 300000, RTTY], [ 350000, SSTV],  
#[ 400000, AM], [ 450000, Packet], [ 500000, Beacons], [ 550000, Satellite], [ 600000, Repeater], [ 650000, ReplInput], [ 700000, Simplex],  
#[ 750000, Other], [ 800000, Special], [ 850000, None],  
# 160 meters  
[ 1800000, Data],  
[ 1809000, Other],  
[ 1811000, CW],  
[ 1843000, Phone],  
[ 1908000, Other],  
[ 1912000, Phone],  
[ 1995000, Other],  
[ 2000000, None],  
# 80 meters  
[ 3500000, eCW],  
[ 3525000, CW],  
[ 3570000, Data],  
[ 3589000, DxData],
```

[3591000, Data],
[3600000, ePhone],
[3790000, Other],
[3800000, Phone],
[3844000, SSTV],
[3846000, Phone],
[3880000, AM],
[3890000, Phone],
[4000000, None],
60 meters
[freq60[0], Phone],
[freq60[0] + 2800, None],
[freq60[1], Phone],
[freq60[1] + 2800, None],
[freq60[2], Phone],
[freq60[2] + 2800, None],
[freq60[3], Phone],
[freq60[3] + 2800, None],
[freq60[4], Phone],
[freq60[4] + 2800, None],
40 meters
[7000000, eCW],
[7025000, CW],
[7039000, DxData],
[7041000, CW],
[7080000, Data],
[7125000, ePhone],
[7170000, SSTV],

[7172000, ePhone],
[7175000, Phone],
[7285000, AM],
[7295000, Phone],
[7300000, None],
30 meters
[10100000, CW],
[10130000, RTTY],
[10140000, Packet],
[10150000, None],
20 meters
[14000000, eCW],
[14025000, CW],
[14070000, RTTY],
[14095000, Packet],
[14099500, Other],
[14100500, Packet],
[14112000, CW],
[14150000, ePhone],
[14225000, Phone],
[14229000, SSTV],
[14231000, Phone],
[14281000, AM],
[14291000, Phone],
[14350000, None],
17 meters
[18068000, CW],
[18100000, RTTY],

[18105000, Packet],
[18110000, Phone],
[18168000, None],
15 meters
[21000000, eCW],
[21025000, CW],
[21070000, RTTY],
[21110000, CW],
[21200000, ePhone],
[21275000, Phone],
[21339000, SSTV],
[21341000, Phone],
[21450000, None],
12 meters
[24890000, CW],
[24920000, RTTY],
[24925000, Packet],
[24930000, Phone],
[24990000, None],
10 meters
[28000000, CW],
[28070000, RTTY],
[28150000, CW],
[28200000, Beacons],
[28300000, Phone],
[28679000, SSTV],
[28681000, Phone],
[29000000, AM],

[29200000, Phone],
[29300000, Satellite],
[29520000, Repeater],
[29590000, Simplex],
[29610000, Repeater],
[29700000, None],
6 meters
[50000000, Beacons],
[50100000, Phone],
[54000000, None],
2 meters
[144000000, CW],
[144200000, Phone],
[144275000, Beacons],
[144300000, Satellite],
[144380000, Special],
[144400000, Satellite],
[144500000, ReplInput],
[144900000, Other],
[145100000, Repeater],
[145500000, Other],
[145800000, Satellite],
[146010000, ReplInput],
[146400000, Simplex],
[146510000, Special], # Simplex calling frequency
[146530000, Simplex],
[146610000, Repeater],
[147420000, Simplex],

[147600000, *ReplInput*],
[148000000, *None*],
1.25 meters
[222000000, *Phone*],
[222250000, *ReplInput*],
[223400000, *Simplex*],
[223520000, *Data*],
[223640000, *Repeater*],
[225000000, *None*],
#70 centimeters
[420000000, *SSTV*],
[432000000, *Satellite*],
[432070000, *Phone*],
[432300000, *Beacons*],
[432400000, *Phone*],
[433000000, *Repeater*],
[435000000, *Satellite*],
[438000000, *Repeater*],
[445900000, *Simplex*],
[445990000, *Special*], *# Simplex calling frequency*
[446010000, *Simplex*],
[446100000, *Repeater*],
[450000000, *None*],
33 centimeters
[902000000, *Other*],
[928000000, *None*],
23 centimeters
[1240000000, *Other*],

```
[1300000000, None],
]
```

For each band, this dictionary gives the lower and upper band edges. Frequencies

outside these limits will not be remembered as the last frequency in the band.

```
BandEdge = {
```

```
'160':( 1800000, 2000000), '80' 😞 3500000, 4000000),
```

```
'60' 😞 5300000, 5430000), '40' 😞 7000000, 7300000),
```

```
'30' :(10100000, 10150000), '20' :(14000000,
14350000),
```

```
'17' :(18068000, 18168000), '15' :(21000000,
21450000),
```

```
'12' :(24890000, 24990000), '10' :(28000000,
29700000),
```

```
'6' :(50000000, 54000000),
```

```
'2' :(144000000, 148000000),
```

```
}
```

For each band, this dictionary gives the initial center frequency, tuning

frequency as an offset from the center frequency, and the mode. This is

no longer too useful because the persistent_state feature saves and then

overwrites these values anyway.

```
bandState = {'Audio':(0, 0, 'LSB'),
```

```
'160':( 1890000, -10000, 'LSB'), '80' 😞 3660000,
```

```
-10000, 'LSB'),
```

```
'60' 😞 5370000, 1500, 'USB'), '40' 😞 7180000, -5000,
'LSB'), '30':(10120000, -10000, 'CWL'),
'20':(14200000, -10000, 'USB'), '17':(18120000,
10000, 'USB'), '15':(21250000, -10000, 'USB'),
'12':(24940000, 10000, 'USB'), '10':(28400000,
-10000, 'USB'),
'Time':( 5000000, 0, 'AM'), '6':(50040000, 10000,
'USB'),
}
```

For the Time band, this is the center frequency, tuning frequency and mode:

```
bandTime = [
( 2500000-10000, 10000, 'AM'),
( 3330000-10000, 10000, 'AM'),
( 5000000-10000, 10000, 'AM'),
( 7335000-10000, 10000, 'AM'),
(10000000-10000, 10000, 'AM'),
(14670000-10000, 10000, 'AM'),
(15000000-10000, 10000, 'AM'),
(20000000-10000, 10000, 'AM'),
]
```

This is the list of band buttons that Quisk displays, and it should have

a length of 12. Empty buttons can have a null string "" label.

Note that the 60 meter band and the Time band have buttons that support

multiple presses.

```
bandLabels = ['Audio', '160', '80', ('60',) * 5, '40', '30',
'20', '17',
'15', '12', '10', ('Time',) * len(bandTime)]
# If you get your I/Q samples from a sound card, you
will need to correct the
# amplitude and phase for inaccuracies in the analog
hardware. The data is
# entered using the controls from the "Rx Phase" button
on the config screen.
# The corrections are saved by the persistent_state
feature.
#
# The available range of the amplitude and phase
controls for receive:
rx_max_amplitude_correct = 0.2 # Correction relative
to 1.000000 (ideally 0.0000)
rx_max_phase_correct = 10.0 # Correction in degrees
of phase (ideally 0.0000)
#
# The bandAmplPhase dictionary gives the amplitude
and phase corrections for
# sound card data. The format is a dictionary with key
"band", giving a dictionary
# with key "rx" or "tx", giving a list of tuples (VFO, tune,
amplitude, phase).
#
# If you use Quisk as a panadapter, the corrections will
not depend on the band.
```

```
# In that case create a band "panadapter" in your config
file, and all corrections
# will be read/written to that band.
bandAmplPhase = {} # Empty dictionary to start
#bandAmplPhase = {'panadapter':{}} # Create
"panadapter" band for all corrections
# The program polls the soundcard or SDR-IQ for data
every data_poll_usec microseconds.
# A lower time reduces latency; a higher time is less
taxing on the hardware.
if sys.platform == "win32":
data_poll_usec = 20000 # poll time in microseconds
else:
data_poll_usec = 5000 # poll time in microseconds
# The fft_size is the width of the data on the screen
(about 800 to
# 1200 pixels) times the fft_size_multiplier. Multiple
FFTs are averaged
# together to achieve your graph refresh rate. If
fft_size_multiplier is
# too small you will get many fft errors. You can specify
fft_size_multiplier,
# or enter a large number (use 9999) to maximize it, or
enter zero to let
# quisk calculate it for you. Look for fft_size_multiplier
in quisk.py.
# If your hardware can change the decimation, there
are further complications.
```

```
# The FFT size is fixed, and only the average count can  
change to adjust the  
# refresh rate.  
fft_size_multiplier = 0  
# The graph_refresh is the frequency at which the  
graph is updated,  
# and should be about 5 to 10 Hertz. Higher rates  
require more processor power.  
graph_refresh = 7 # update the graph at this rate in  
Hertz  
# latency_millisecs determines how many samples are  
in the soundcard play buffer.  
# A larger number makes it less likely that you will run  
out of samples to play,  
# but increases latency. It is OK to suffer a certain  
number of play buffer  
# underruns in order to get lower latency.  
latency_millisecs = 150 # latency time in milliseconds  
# Select the method to test the state of the key; see  
is_key_down.c  
key_method = "" # No keying, or internal method  
# key_method = "/dev/parport0" # Use the named  
parallel port  
# key_method = "/dev/ttyS0" # Use the named serial  
port  
# key_method = "192.168.1.44" # Use UDP from this  
address  
# If you are using keying, key-down throws away the
```

current capture buffer
and starts a sidetone with a rise time of 5
milliseconds. For
key-up, the sidetone is ended with a fall time of 5
milliseconds, then
a silent period starts, then normal audio starts with a
rise time of
5 milliseconds. The length of the silent period is given
by keyupDelay,
but will be at least the time necessary to collect
enough samples to
refill the filters. A larger keyupDelay may be needed
to accomodate
antenna switching or other requirement of your
hardware.
keyupDelay = 23 # extra milliseconds silence on key up
This is a tuning parameter for the AGC. It controls the
maximum AGC gain and thus
the scale of the AGC slider control. It depends on
your sample magnitudes.
agc_max_gain = 15000.0
This controls the audio gain when AGC is off. It
depends on your sample magnitudes.
Reduce it if turning off the AGC makes the sound too
loud.
agc_off_gain = 1400.0
For FM transmit, this is the modulation index.
modulation_index = 1.67

Download [quisk_conf.py](#)

The only real thing you'll have to change in the config file is:

```
si570_xtal_freq = 114213790
```

This needs to be set to the frequency you have calibrated your receiver for.

Only other things I have modified in the config file is layout and colour scheme and to start in WFall, you can see that from the screen shot above.