

```

#####
#
#           Configuration file for Dire Wolf           #
#
#           Linux version                               #
#
#####
# Consult the User Guide for more details on configuration options.
#
#
# These are the most likely settings you might change:
#
#   (1)      MYCALL      -   call sign and SSID for your station.
#
#           Look for lines starting with MYCALL and
#           change NOCALL to your own.
#
#   (2)      PBEACON     -   enable position beaconing.
#
#           Look for lines starting with PBEACON and
#           modify for your call, location, etc.
#
#   (3)      DIGIPEATER  -   configure digipeating rules.
#
#           Look for lines starting with DIGIPEATER.
#           Most people will probably use the given example.
#           Just remove the "#" from the start of the line
#           to enable it.
#
#   (4)      IGSERVER,  IGLOGIN  -  IGate server and login
#
#           Configure an IGate client to relay messages between
#           radio and internet servers.
#
#
# The default location is "direwolf.conf" in the current working
directory.
# On Linux, the user's home directory will also be searched.
# An alternate configuration file location can be specified with the "-c"
command line option.
#
# As you probably guessed by now, # indicates a comment line.
#
# Remove the # at the beginning of a line if you want to use a sample
# configuration that is currently commented out.
#
# Commands are a keyword followed by parameters.
#
# Command key words are case insensitive.  i.e. upper and lower case are
equivalent.
#
# Command parameters are generally case sensitive.  i.e. upper and lower
case are different.

```

```

#

#####
#
#           FIRST AUDIO DEVICE PROPERTIES           #
#           (Channel 0 + 1 if in stereo)           #
#
#####

#
# Many people will simply use the default sound device.
# Some might want to use an alternative device by chosing it here.
#
# Linux ALSA is complicated.  See User Guide for discussion.
# To use something other than the default, generally use plughw
# and a card number reported by "arecord -l" command.  Example:

ADEVICE pasym0

# Starting with version 1.0, you can also use "-" or "stdin" to
# pipe stdout from some other application such as a software defined
# radio.  You can also specify "UDP:" and an optional port for input.
# Something different must be specified for output.

#ADEVICE - plughw:1,0
# ADEVICE UDP:7355 default

#
# Number of audio channels for this sounccard:  1 or 2.
#

ACHANNELS 1
#ACHANNELS 2

#####
#
#           SECOND AUDIO DEVICE PROPERTIES           #
#           (Channel 2 + 3 if in stereo)           #
#
#####

#ADEVICE1 ...

#####
#
#           THIRD AUDIO DEVICE PROPERTIES           #
#           (Channel 4 + 5 if in stereo)           #
#
#####

```

```
#ADEVICE2 ...
```

```
#####  
#  
# CHANNEL 0 PROPERTIES #  
#  
#####
```

```
CHANNEL 0
```

```
#  
# The following MYCALL, MODEM, PTT, etc. configuration items  
# apply to the most recent CHANNEL.  
#
```

```
#  
# Station identifier for this channel.  
# Multiple channels can have the same or different names.  
#  
# It can be up to 6 letters and digits with an optional ssid.  
# The APRS specification requires that it be upper case.  
#  
# Example (don't use this unless you are me): MYCALL WB2OSZ-5  
#
```

```
MYCALL MYCALL-0
```

```
#  
# Pick a suitable modem speed based on your situation.  
# 1200 Most common for VHF/UHF. Default if not specified.  
# 300 Low speed for HF SSB.  
# 9600 High speed - Can't use Microphone and Speaker connections.  
#  
# In the simplest form, just specify the speed.  
#
```

```
MODEM 1200  
#MODEM 300  
#MODEM 9600
```

```
#  
# These are the defaults should be fine for most cases. In special  
# situations,  
# you might want to specify different AFSK tones or the baseband mode  
# which does  
# not use AFSK.  
#  
#MODEM 1200 1200:2200  
#MODEM 300 1600:1800  
#MODEM 9600 0:0  
#  
#
```

```
# On HF SSB, you might want to use multiple demodulators on slightly
different
# frequencies to compensate for stations off frequency. Here we have 7
different
# demodulators at 30 Hz intervals. This takes a lot of CPU power so you
will
# probably need to reduce the audio sampling rate with the /n option.

#MODEM 300 1600:1800 7@30 /4

#
# Uncomment line below to enable the DTMF decoder for this channel.
#

#DTMF

#
# If not using a VOX circuit, the transmitter Push to Talk (PTT)
# control is usually wired to a serial port with a suitable interface
# circuit.
# DON'T connect it directly!
#
# For the PTT command, specify the device and either RTS or DTR.
# RTS or DTR may be preceded by "-" to invert the signal.
# Both can be used for interfaces that want them driven with opposite
# polarity.
#
# COM1 can be used instead of /dev/ttyS0, COM2 for /dev/ttyS1, and so on.
#

#PTT COM1 RTS
#PTT COM1 RTS -DTR
#PTT /dev/ttyUSB0 RTS

#
# On Linux, you can also use general purpose I/O pins if
# your system is configured for user access to them.
# This would apply mostly to microprocessor boards, not a regular PC.
# See separate Raspberry Pi document for more details.
# The number may be preceded by "-" to invert the signal.
#

PTT GPIO 60

# The Data Carrier Detect (DCD) signal can be sent to the same places
# as the PTT signal. This could be used to light up an LED like a normal
# TNC.

#DCD COM1 -DTR
#DCD GPIO 24

#####
```

```

#
# CHANNEL 1 PROPERTIES
#
#####

#CHANNEL 1

#
# Specify MYCALL, MODEM, PTT, etc. configuration items for
# CHANNEL 1. Repeat for any other channels.

#####

#
# TEXT TO SPEECH COMMAND FILE
#
#####

#SPEECH dwespeak.sh

#####

#
# VIRTUAL TNC SERVER PROPERTIES
#
#####

#
# Dire Wolf acts as a virtual TNC and can communicate with
# client applications by different protocols:
#
# - the "AGW TCPIP Socket Interface" - default port 8000
# - KISS protocol over TCP socket - default port 8001
# - KISS TNC via pseudo terminal (-p command line option)
#

AGWPORT 8000
KISSPORT 8001

#
# It is sometimes possible to recover frames with a bad FCS.
# This applies to all channels.
#
# 0 [NONE] - Don't try to repair.
# 1 [SINGLE] - Attempt to fix single bit error. (default)
# 2 [DOUBLE] - Also attempt to fix two adjacent bits.
# ... see User Guide for more values and in-depth discussion.
#

#FIX_BITS 0

#
#####
#

```

```

#                               BEACONING PROPERTIES                               #
#                                                                           #
#####

#
# Beaconing is configured with these two commands:
#
#     PBEACON           - for a position report (usually yourself)
#     OBEACON           - for an object report (usually some other entity)
#
# Each has a series of keywords and values for options.
# See User Guide for details.
#
# Example:
#
# This results in a broadcast once every 10 minutes.
# Every half hour, it can travel via two digipeater hops.
# The others are kept local.
#

#PBEACON delay=1  every=30 overlay=S symbol="digi" lat=42^37.14N
long=071^20.83W power=50 height=20 gain=4 comment="Chelmsford MA"
via=WIDE1-1,WIDE2-1
#PBEACON delay=11 every=30 overlay=S symbol="digi" lat=42^37.14N
long=071^20.83W power=50 height=20 gain=4 comment="Chelmsford MA"
#PBEACON delay=21 every=30 overlay=S symbol="digi" lat=42^37.14N
long=071^20.83W power=50 height=20 gain=4 comment="Chelmsford MA"
#PBEACON delay=1  every=2  overlay=S symbol="digi" lat=37^26.57N
long=122^07.68W power=5  height=20 gain=2 comment="Base station, Palo
Alto, CA"

# With UTM coordinates instead of latitude and longitude.

#PBEACON delay=1  every=10 overlay=S symbol="digi" zone=19T easting=307477
northing=4720178

#
# When the destination field is set to "SPEECH" the information part is
# converted to speech rather than transmitted as a data frame.
#

#CBEACON dest="SPEECH" info="Club meeting tonight at 7 pm."

#
# Modify for your particular situation before removing
# the # comment character from the beginning of appropriate lines above.
#

#####

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```

#                                                     #
#           DIGIPEATER PROPERTIES                       #
#                                                     #
#####

#
# For most common situations, use something like this by removing
# the "#" from the beginning of the line below.
#

#DIGIPEAT 0 0 ^WIDE[3-7]-[1-7]$|^TEST$ ^WIDE[12]-[12]$ TRACE

# See User Guide for more explanation of what this means and how
# it can be customized for your particular needs.

# Filtering can be used to limit was is digipeated.
# For example, only weather weather reports, received on channel 0,
# will be retransmitted on channel 1.
#

#FILTER 0 1 t/wn

#####
#                                                     #
#           INTERNET GATEWAY                           #
#                                                     #
#####

# First you need to specify the name of a Tier 2 server.
# The current preferred way is to use one of these regional rotate
addresses:

#   noam.aprs2.net           - for North America
#   soam.aprs2.net          - for South America
#   euro.aprs2.net          - for Europe and Africa
#   asia.aprs2.net          - for Asia
#   aunz.aprs2.net          - for Oceania

#IGSERVER noam.aprs2.net

# You also need to specify your login name and passcode.
# Contact the author if you can't figure out how to generate the
passcode.

#IGLOGIN WB2OSZ-5 123456

# That's all you need for a receive only IGate which relays
# messages from the local radio channel to the global servers.

# Some might want to send an IGate client position directly to a server
# without sending it over the air and relying on someone else to
# forward it to an IGate server. This is done by using sendto=IG rather
# than a radio channel number. Overlay R for receive only, T for two way.

```

```
#PBEACON sendto=IG delay=0:30 every=60:00 symbol="igate" overlay=R
lat=42^37.14N long=071^20.83W
#PBEACON sendto=IG delay=0:30 every=60:00 symbol="igate" overlay=T
lat=42^37.14N long=071^20.83W
```

```
# To relay messages from the Internet to radio, you need to add
# one more option with the transmit channel number and a VIA path.
```

```
#IGTXVIA 0 WIDE1-1
```

```
# You might want to apply a filter for what packets will be obtained from
the server.
# Read about filters here: http://www.aprs-is.net/javaprsfilter.aspx
# Example, positions and objects within 50 km of my location:
```

```
#IGFILTER m/50
```

```
# That is known as a server-side filter. It is processed by the IGate
server.
# You can also apply local filtering to limit what will be transmitted on
the
# RF side. For example, transmit only "messages" on channel 0 and
weather
# reports on channel 1.
```

```
#FILTER IG 0 t/m
#FILTER IG 1 t/wn
```

```
# Finally, we don't want to flood the radio channel.
# The IGate function will limit the number of packets transmitted
# during 1 minute and 5 minute intervals. If a limit would
# be exceeded, the packet is dropped and message is displayed in red.
```

```
IGTXLIMIT 6 10
```

```
#####
#
#           APRStt GATEWAY
#
#####
```

```
#
# Dire Wolf can receive DTMF (commonly known as Touch Tone)
# messages and convert them to packet objects.
#
# See separate "APRStt-Implementation-Notes" document for details.
#
```

```
#
# Sample gateway configuration based on:
#
```



```

#      http://www.aprs.org/aprstt/aprstt-coding24.txt
#      http://www.aprs.org/aprs-jamboree-2013.html
#

# Define specific points.

TTPOINT  B01  37^55.37N  81^7.86W
TTPOINT  B7495088  42.605237  -71.34456
TTPOINT  B934  42.605237  -71.34456

TTPOINT  B901  42.661279  -71.364452
TTPOINT  B902  42.660411  -71.364419
TTPOINT  B903  42.659046  -71.364452
TTPOINT  B904  42.657578  -71.364602

# For location at given bearing and distance from starting point.

TTVECTOR  B5bbbbdd  37^55.37N  81^7.86W  0.01  mi

# For location specified by x, y coordinates.

TTGRID  Byyyxxx  37^50.00N  81^00.00W  37^59.99N  81^09.99W

# UTM location for Lowell-Dracut-Tyngsborough State Forest.

TTUTM  B6xxxxyy  19T  10  300000  4720000

# Location for the corral.

TTCORRAL  37^55.50N  81^7.00W  0^0.02N

# Compact messages - Fixed locations xx and object yyy where
#      Object numbers 100 - 199      = bicycle
#      Object numbers 200 - 299      = fire truck
#      Others                          = dog

TTMACRO  xx1yy  B9xx*AB166*AA2B4C5B3B0A1yy
TTMACRO  xx2yy  B9xx*AB170*AA3C4C7C3B0A2yy
TTMACRO  xxyyy  B9xx*AB180*AA3A6C4A0Ayyy

TTMACRO  z  Cz

# Receive on channel 0, Transmit object reports on channel 1 with
optional via path.

#TTOBJ 0 1 WIDE1-1

# Advertise gateway position with beacon.

# OBEACON DELAY=0:15 EVERY=10:00 VIA=WIDE1-1 OBJNAME=WB2OSZ-tt
SYMBOL=APRStt LAT=42^37.14N LONG=71^20.83W COMMENT="APRStt Gateway"

```

