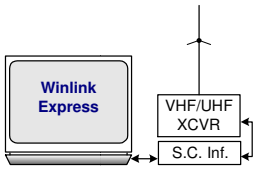
Winlink Express set-up for sound card modem use - V0.2.2



✱ This procedure assumes the user has some experience with Winlink Express ✱

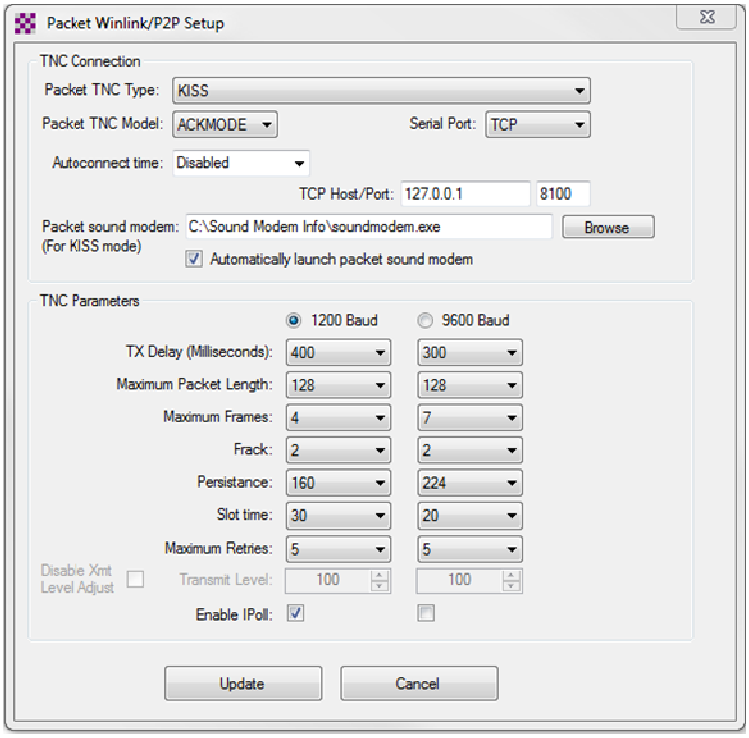
Packet Winlink/P2P settings ⇨

For use with UZ7HO Soundmodem

Start after Soundmodem

- ☐ **Start Winlink Express**
- ☐ Select 'Packet Winlink' in the session dropdown
- ☐ Click – Open Session:
- ☐ Click – Settings in the Packet Winlink Session window
- ☐ Set Packet TNC Type: to **KISS**
- ☐ Set Packet TNC Model: to **ACKMODE**
- ☐ Set Serial Port: to **TCP**
- ☐ TCP Host / Port will be set to **127.0.0.1 / 8100**
- ☐ Under TNC Parameters, select **1200 Baud**.
- ☐ Check – **Enable IPoll** (Bottom of screen)
- ☐ Click Update

See Page 2 for Soundmodem setup



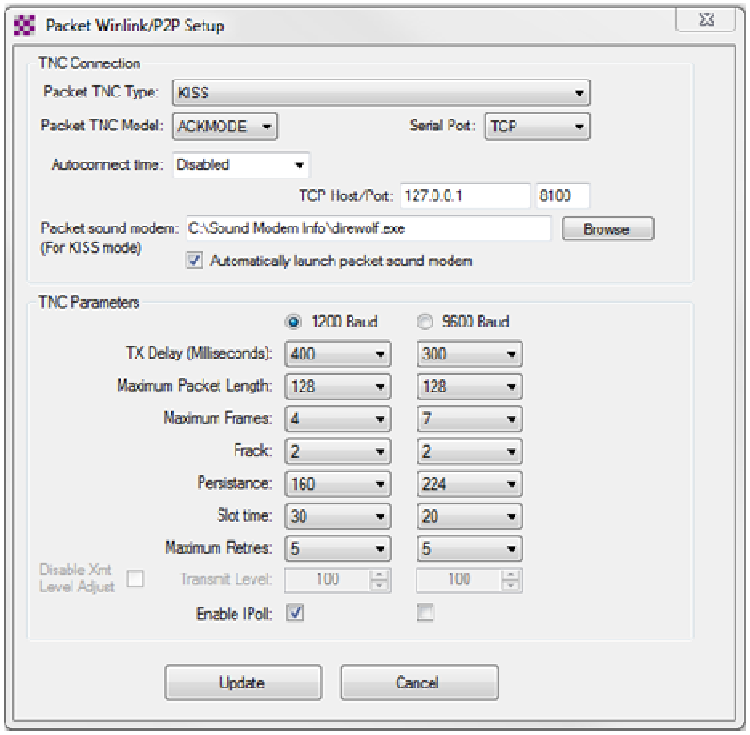
Packet Winlink/P2P settings ⇨

For use with Dire Wolf

Start after Dire Wolf

- ☐ **Start Winlink Express**
- ☐ Select 'Packet Winlink' in the session dropdown
- ☐ Click – Open Session:
- ☐ Click – Settings in the Packet Winlink Session window
- ☐ Set Packet TNC Type: to **KISS**
- ☐ Set Packet TNC Model: to **ACKMODE**
- ☐ Set Serial Port: to **TCP**
- ☐ TCP Host / Port will be set to **127.0.0.1 / 8000**
- ☐ Under TNC Parameters, select **1200 Baud**.
- ☐ Check – **Enable IPoll** (Bottom of screen)
- ☐ Click Update

See Page 4 for Dire Wolf setup



Note: If sound card software program is not set to auto start in Winlink Express, start before Winlink Express !

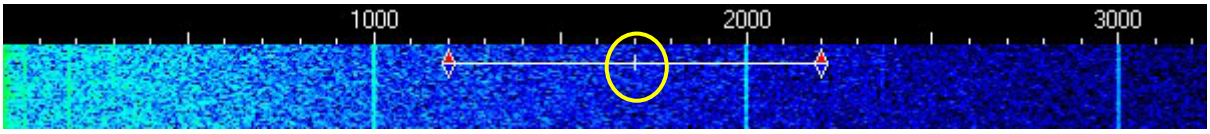
Soundmodem Settings for sound device use with Winlink Express

☐ Go to http://uz7ho.ua/packetradio.htm and download the latest soundmodemXXX.zip and ptt-dll.zip files. (The XXX refers to the version number) Unzip the files to a temporary location on your computer.

☐ Create a new folder (ex. C:\UZ7HO) and copy soundmodem.exe and PTT.dll from the temporary location into the new folder. (**soundmodem.exe and ptt.dll must be in the same folder**)

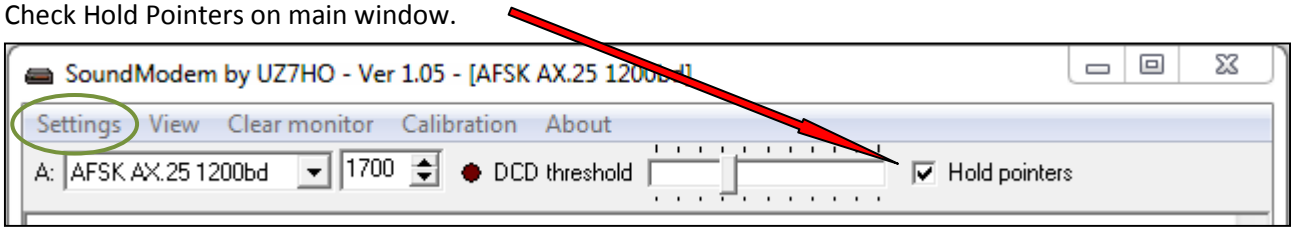
☐ Run the soundmodem.exe file. You may get a message from your Anti-Virus program. Ignore it or set allow.

✳ Soundmodem will find and enable the PTT.DLL file.

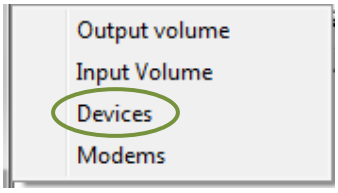


☐ For soundcard packet the signal bar on the waterfall should be centered at 1700.

☐ Check Hold Pointers on main window.



☐ In the Soundmodem window, click Settings then Devices.



Settings: (see Fig. 1 page 3)

☐ Select Output and Input devices:

✳ SignaLink USB: Select USB Audio CODEC for both Output and Input

✳ Homebrew interface: Select your soundcard input and output connected to your interface.

☐ Uncheck – TX rotation

☐ Check – Single channel output

☐ Check – Color waterfall. This can use a lot of computer resources, so you may not want to check this

☐ Check – Stop waterfall on minimize.

Server setup:

☐ Check – Enabled for Kiss Server Port (8100). You can leave AGWPE Server Port unchecked

PTT Port:

☐ Uncheck Dual PTT

☐ Uncheck Swap COM pins for PTT

☐ Select from the Select PTT port dropdown as indicated below

✳ For the SignaLink USB this should be **NONE** ⇨ Make sure neither box is checked.

✳ For a homebrew soundcard interface, using a com port for PTT, select the port you are using to key your rig. ⇨ You may need to experiment with the 'Dual PTT' and 'Swap' check boxes to get your PTT to function. If using just a homebrew soundcard interface with no PTT control operate set to NONE and use VOX on radio.

☐ Click Apply to save settings

☐ Click OK

☐ Click – Settings/Modems

☐ Check – Default settings

☐ Check – KISS Optimization

☐ Check – non-AX25 filter

Modem Settings: (see Fig. 2 page 3)

☐ Set ch: A Modem filters as shown (Channel B not used)

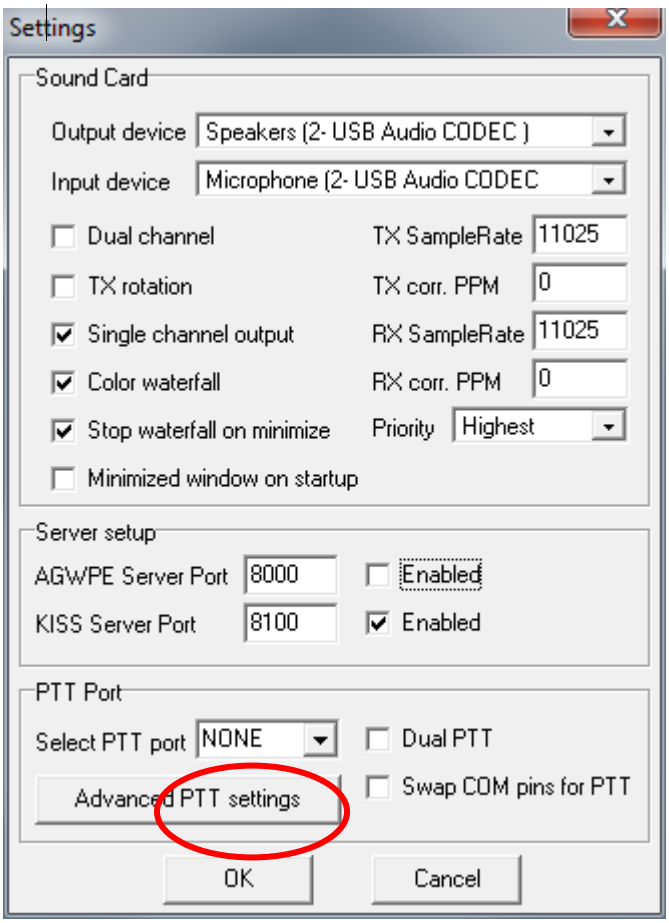
☐ Set Modem type ch: A settings as shown

☐ Click OK

☐ Close Soundmodem and restart. Then start Winlink Express

Once set up, start before Winlink Express if auto start is not enabled.

UZ7HO's Sound Modem - Set -up screens (Basis Courtesy of N4SER.Org)



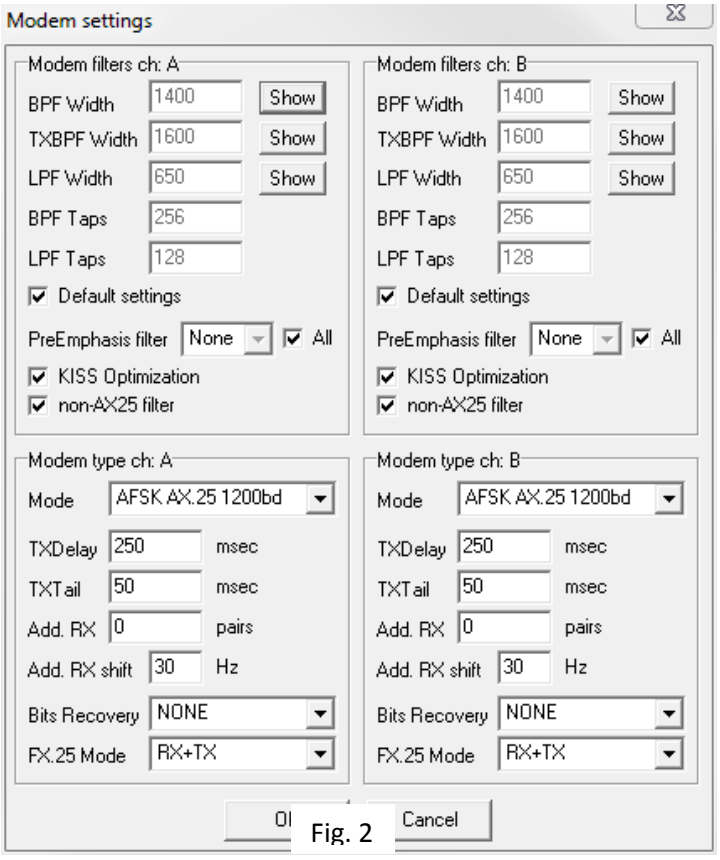


Fig. 2

The USB Audio codec is a Signalink interface. Some interfaces require a com port for PTT.

Simple SoundCard Interface for DIYers.

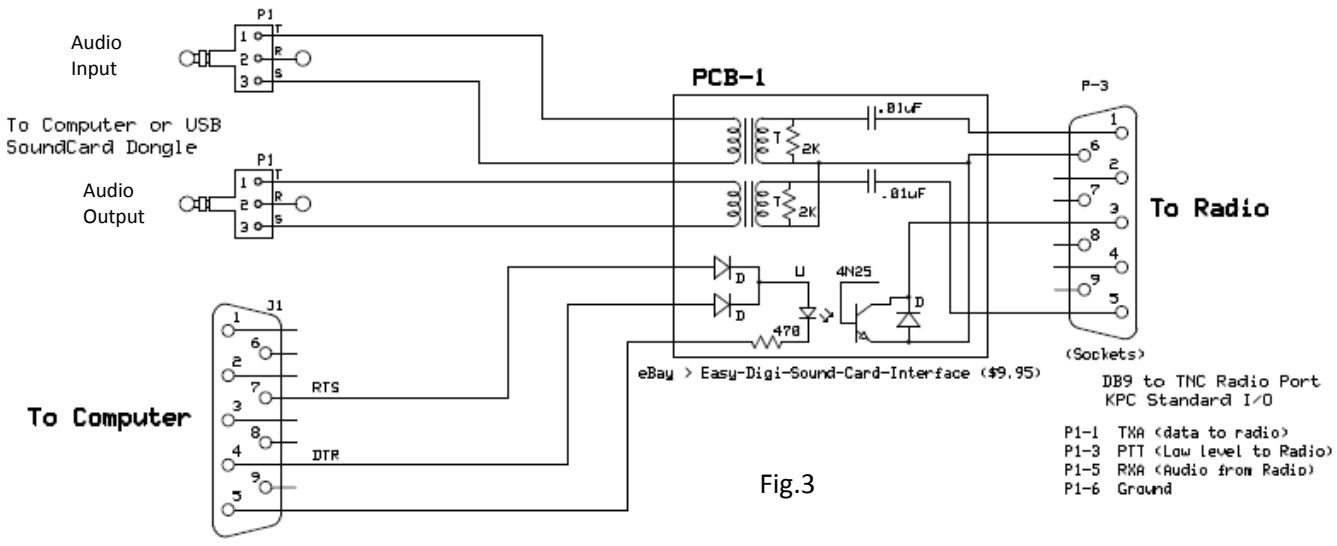


Fig.3

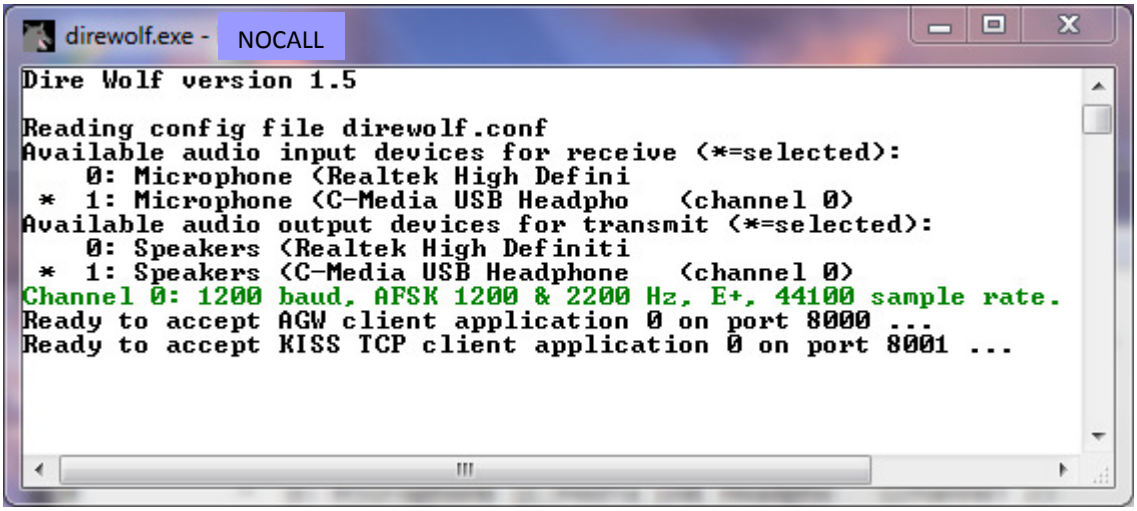
Note: information provided here is believed to be correct. Use at your own risk.

Dire Wolf Sound Card Program

Set -up

For Dire Wolf configuration, you will need to edit the "direwolf.conf" file and modify the following lines appropriately in the "CHANNEL 0" section:

- ADEVICE – set using the instructions found in "direwolf.conf" just above the ADEVICE line
- MYCALL – set to your callsign **without** an SSID
- PTT – set to the serial port you will use to key up your radio



Representative screen - use data in settings below rather than what is shown

Dire Wolf Sound modem program Install and Settings

- ☐ Download Dire Wolf from https://github.com/wb2osz/direwolf/releases/ and extract it to a folder of your choosing. C:\direwolf for instance.
- ☐ Go to that directory and right click on direwolf.conf and select edit with notepad or your favorite text editor
- ☐ In direwolf.conf any line starting with a # is a comment, remove the # to make it readable by Dire Wolf.
- ☐ If using a SignaLink, **uncomment** ADEVICE USB and MYCALL NOCALL, change NOCALL to your call sign. That's it.

```
# Example: To use the USB Audio, use a command like this with
# the input and output device numbers.  (Remove the # comment character.)
#ADEVICE USB

MYCALL NOCALL
```

If using other interfaces (see diagram on 3rd page), there are three things we need to add.

- ☐ Look for a line that reads MYCALL NOCALL and remove the pound sign and Change the NOCALL to your callsign in uppercase letters.

☐ Next make sure the line that says MODEM 1200 is uncommented. May be the default but make sure.

```
# In the simplest form, just specify the speed.

MODEM 1200
#MODEM 300
#MODEM 9600
```

☐ KISSPORT should be uncommented and make note of the port number used. We will need it for setting up Winlink.

☐ Change KISSPORT from 8001 to 8100 as Winlink forms uses 8001

```
#    - the "AGW TCPIP Socket Interface" - default port 8000
#    - KISS protocol over TCP socket - default port 8100
#    - KISS TNC via serial port
#

#AGWPORT 8000
KISSPORT 8100
```

☐ Next find a line that begins ADEVICE USB remove the # and we are going to change the USB to what your sound device is or just leave it as USB.

☐ For windows 10 If you right click on the volume icon in your system tray (looks like a speaker in lower right area of desktop) then click sounds you will see your sound properties dialog. Click on the playback tab and find the sound device for your interface.

☐ What that device is named is what we will use. you can actually change this name if you right click properties, then type in a new name in the box. I highly recommend you do this as many USB devices will be named USB 1 USB 2 etc. and this gets confusing. Do the same with the recording device under the recording tab. For earlier windows this same thing can be done but the programs are accessed a bit differently.

☐ Next find the line that says PTT COM1 RTS and remove the # change com1 to the com port you use to assert PTT on your radio. if you go to device manager and click on ports you can find what comports you have. You may have more than one but you need to determine which one is your interface port for the radio. A signal link device uses VOX so you won't need to setup a PTT port for them.

```
# 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.
#

PTT COM3 RTS DTR
```

That should finish up Dire Wolf setup. Be sure to save your file and try running Dire Wolf. Green lines are good and red lines are bad so if nothing is red you should be fine. if not the program should give you a good idea as to what is wrong. Once you have Dire Wolf running start Winlink Express

Note: information provided here is believed to be correct. Use at your own risk.