



FT8 FOX MODE

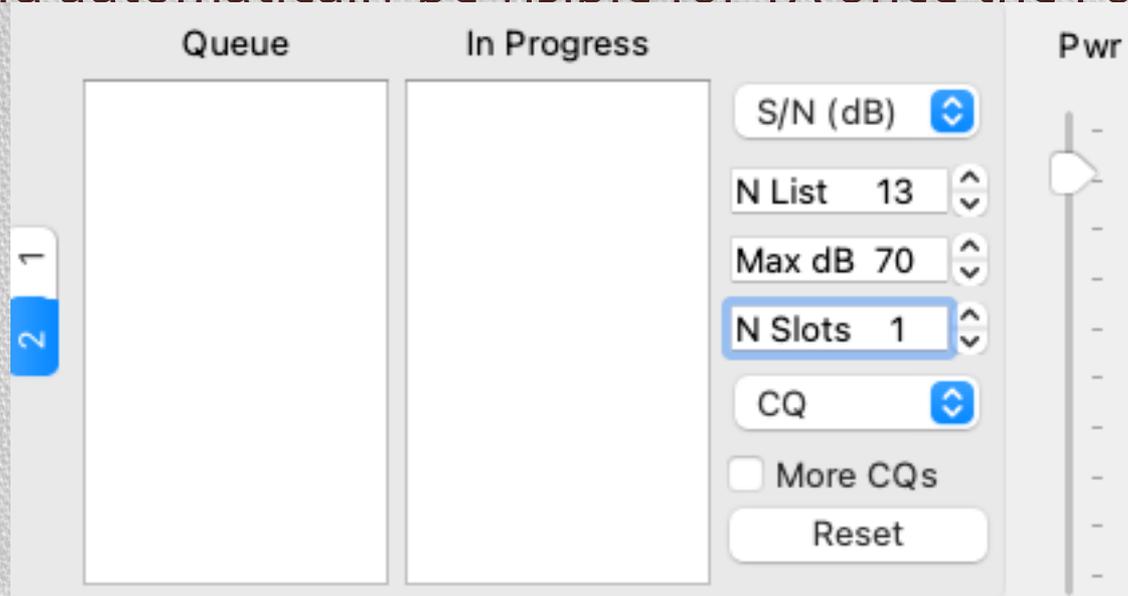
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Preliminary steps

- Because we don't want to cause congestion on the standard frequencies we need to set the pre-arranged frequencies in the working frequencies table. Recommendations are to set the frequency 2-3KHz below the standard frequencies subject to frequency restrictions for this class.
- To enter the frequencies, WSJT-X > Settings > Frequencies then right click on the table > Insert then enter the mode (FT8) the frequency and a name if you like.
- Next if not already done WSJT-X > Settings > General check the DXCC entity, grid, and worked before status
- Next make sure the waterfall display is at least 200-4000Hz, you will be transmitting between 300 and 900 Hz and hopefully the hounds above 1000Hz, Note the fox mode should ignore any signals above 1000 Hz

Continued

- Enable Fox mode WSTJ-X > Settings > Advanced > Special Operating Activity > Fox. A Fox log window will appear, more on this later.
- Set the TX frequency to 300 Hz and check the Hold TX Freq box. It is unlikely that there is QRM on an unused frequency but if there is you can select another start frequency in the 300-600 Hz range.
- Set the RX frequency to 1500 Hz
- Tab 2 should automatically be visible for TX once the Fox mode is set



Tab 2 controls

- N Slots sets the maximum number of Fox signals that are transmitted simultaneously.
- CQ is a drop down list that allows you to select for a particular continent or call area, anything outside that selected will be ignored, for our purposes it should be left to CQ vs say CQ AF.
- Max dB sets the maximum signal level, anything over this is ignored, recommend leaving at +70 dB. If too many powerful stations are happening it can be set lower.
- N List is the maximum number of sorted call signs that are put into the queue. I.e. in order of next to transmit.
- S/N (dB) is a list that sorts the list by Call, Grid, S/N, Distance or Random. I would recommend random for maximum QSLs if too many are Eastern NA, then could switch to Distance.

Operating

- Note “Stations calling DXpedition” double clicking one will enter it in the Queue, just hit Enter and the one at the top of the queue will go.
- Reset clears all queues and the Fox will start at CQ again.

The screenshot shows the WSJT-X v2.6.1 software interface. The main window is titled "Stations calling DXpedition VE2YNI". The interface is divided into several sections:

- Top Section:** A table with columns for "Call", "Grid", "dB", "Freq", "Dist", "Age", "Continent", "UTC", "dB", "DT Freq", and "Message".
- Control Buttons:** A row of buttons including "Log QSO", "Stop", "Monitor" (highlighted in green), "Erase", "Decode" (highlighted in cyan), "Enable Tx", "Halt Tx", "Tune", and "Menus".
- Frequency and Mode:** A frequency display showing "21.074 000" and a mode selector set to "15m".
- Signal Strength:** A vertical signal strength meter on the left showing "59 dB".
- Call Information:** A section with "DX Call" (PW8DF) and "DX Grid" (F181). Other fields include "Az: 167", "6067 km", and "Report -15".
- Queue and In Progress:** Two empty tables for "Queue" and "In Progress".
- Settings:** A section with "S/N (dB)", "N List 13", "Max dB 70", "N Slots 1", and "CQ" (set to "CQ").
- Bottom Section:** A status bar showing "Receiving", "FT8", "11", and "WD:0m".

Logging

- Mentioned earlier the Fox log window opens automatically, if not go to WSJT-X > view > Fox log to open. This window shows the QSO's logged, the decodable Hounds (callers), and the number QSOs in progress as well as the hourly rate.



Logging

- To send the QSOs directly to the N1MM Logger, go to WSTJ-X > Settings (Preferences) > Reporting Enable “Logged contact ADIF broadcast” and the IP address used by N1MM. (assuming N1MM is configured to accept logging from WSJT-X) Config > Config Ports > Broadcast data, then check WSJT-X and or JTAlert.

To start a run

- Press Enable TX, Fox will call CQ until a hound replies. At which point things will progress normally. The number of slots determines the number of simultaneous QSOs. But Fox mode will revert to a single CQ once every 5 minutes.
- You should watch the TX level slider and ALC to prevent overdriving and distortion. Note the more slots you activate the less average power you will have and the less power in each slot, the average power in each slot is $P_o/(N \text{ slots})^2$ so N=1, 2, 3, 4 will reduce the power by 0, 6, 9.5 and 12 dB. I would recommend a max of two slots unless severe pileup. Keep in mind if going for weak stations N=1.