

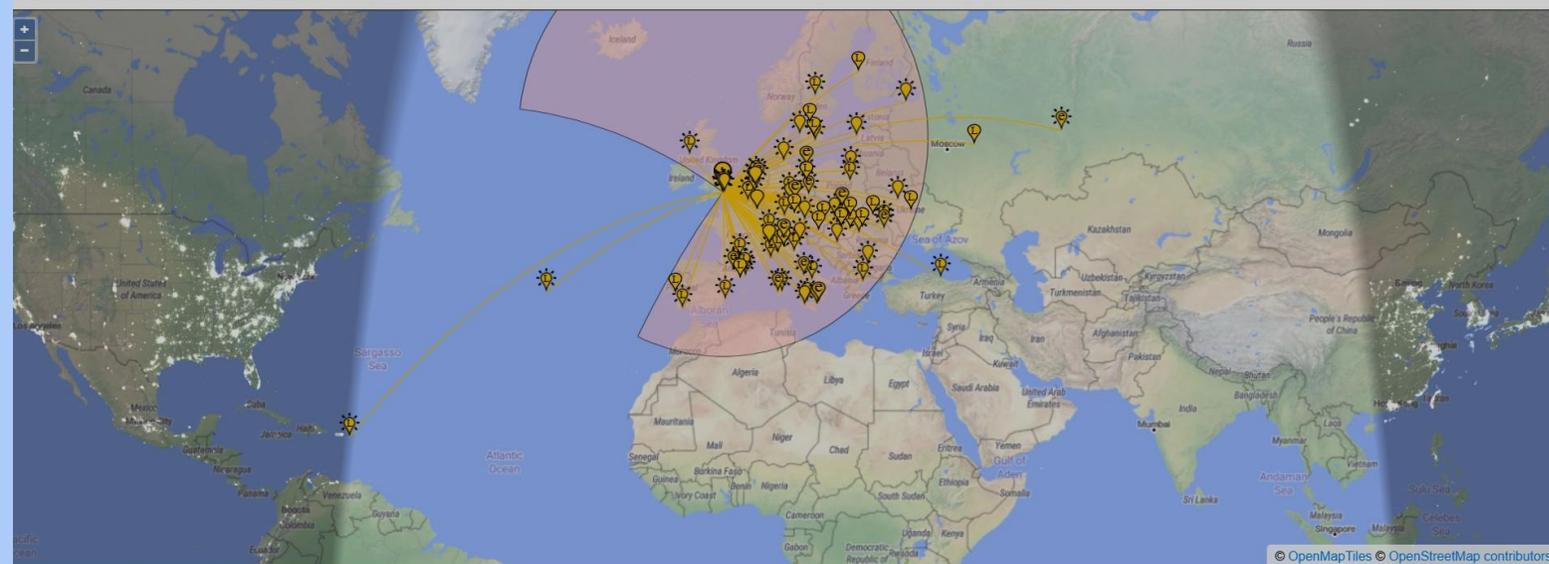
# Getting started with FT8 (and FT4)

The screenshot shows the WSJT-X v2.7.0 interface. The top section displays a list of received signals with columns for UTC, dB, DT, Freq, Message, and Country. The middle section shows a control panel with buttons for 'Log QSO', 'Stop', 'Monitor', 'Erase', 'Decode', 'Enable Tx', and 'Halt Tx'. The bottom section shows a frequency display of 14.074 000 MHz and a list of nearby stations.

On [20m] show [signals] sent/rcvd by [v] the callsign [v] g0mgk using [FT8] over the last [15 minutes] [v] [v] Display options Permalink

Monitoring G0MGK (last heard 2 hrs ago). Automatic refresh in 5 minutes. Small markers are the 80 transmitters (show logbook) heard (distance chart) at G0MGK (2166 reports, 84 countries last 24 hours; 17060 reports, 97 countries last week).

There are 1816 active FT8 monitors: 1796 on 20m, 395 on 40m, 341 on 30m, 330 on 15m, 311 on 10m, 268 on 17m, 234 on 12m, 169 on 80m, 98 on 160m, 96 on 60m, 56 on 6m, 26 on 2m, 25 on 600m, 6 on 2.4GHz, 4 on 11m, 3 on 10GHz, 2 on 8m, 2 on 70cm, 1 on 4m, 1 on 23cm. Show all on all bands. Legend



Mick Kelsey  
G0MGK



# *FT4 and FT8*

- *Weak Signal DX modes*
- *Ideal for those running low power*
- *Ideal for those with compromised antennas or locations*
- *It is NOT a 'rag-chew' mode*
- *Minimal exchange of callsign, location, and signal report*



# Is it Radio?



On FT8, no one knows you are a dog....

# *FT8 – Franke-Taylor 8-FSK Modulation*

- *Developed by:*
  - *Steve Franke - K9AN*
  - *Joe Taylor - K1JT*
  - *Bill Somerville – G4WJS*
- *Developed from JT4, JT9, JT65 and other digital modes pioneered in WSJT*
- *The modes utilise:-*
  - *Time-synchronised transmissions*
  - *Structured messages*
  - *Lossless compression*



# History

- ***FT8 was introduced in 2017***
  - ***It quickly became popular, accounting for a large portion of HF amateur radio activity***
- ***FT4 was introduced about 2 years later***
  - ***Uses similar protocols***
  - ***Is a faster mode primarily intended for contesting***



# Message Components

- ***CQ – Calling CQ***
- ***Optional ‘target’ field – eg POTA, SOTA, DX, EU etc***
- ***Callsign***
- ***Locator***
- ***Signal Report – eg -9***
- ***Response – eg 73***

***CQ G0MGMK IO91***



# Message Encoding – FT8

- The message **CQ G0MGMK I091** is encoded, error correction data added, checksum added
- The result is a string of values, each value in the range 0 - 7
- Each value represents an audio tone deviation of 5.86Hz
  - 0 = 0 deviation
  - 1 = +5.86Hz deviation
  - etc
- This gives a bandwidth of 50Hz
- Actual Tx time is 12.6 seconds (in a 15 second window)

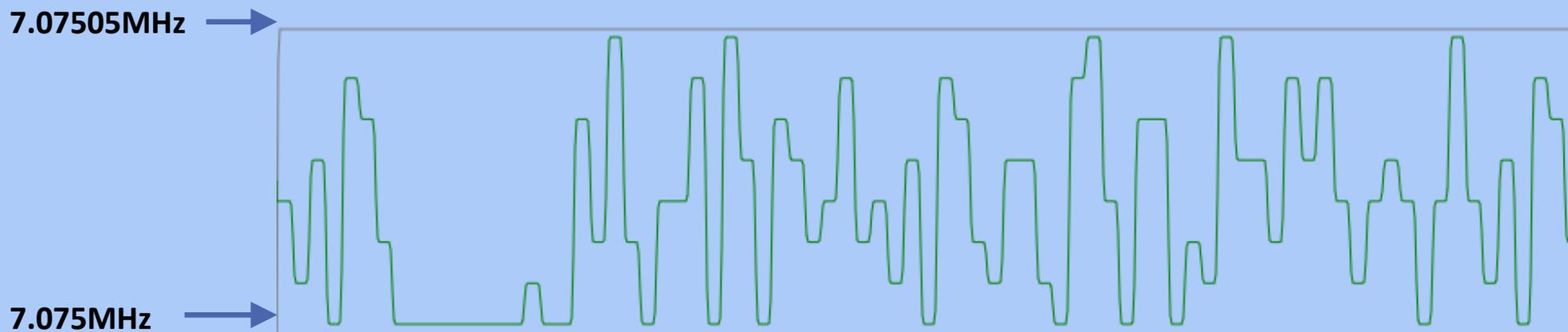
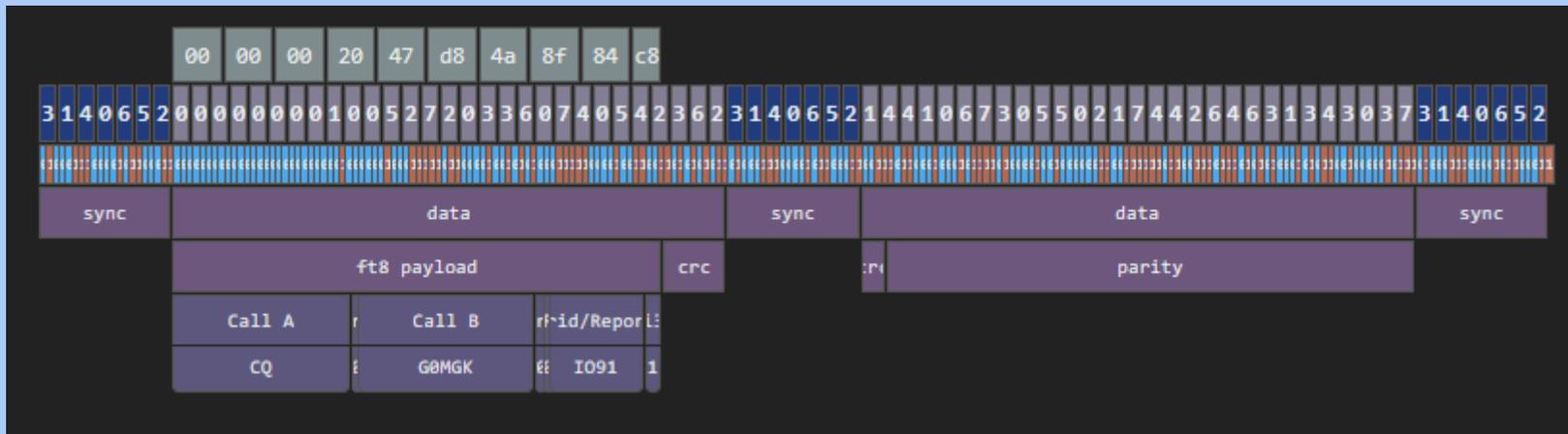
# Message Encoding – FT4

- The message **CQ G0MGK I091** is encoded, error correction data added, checksum added
- The result is a string of values, each value in the range 0 - 3
- Each value represents an audio tone deviation of 20.833Hz
  - 0 = 0 deviation
  - 1 = +20.833Hz deviation
  - etc
- This gives a bandwidth of 90Hz
- Actual Tx time is 6 seconds in a 7.5 second window

# *Message Transmission – FT8*

- *Each message is 50Hz wide*
- *By convention, USB is used (even on lower frequencies)*
- *By convention, certain frequencies are assigned for FT modes*
  - *40m – 7.074 MHz 20m – 14.074*
- *Tx bandwidth on transceiver is 3kHz*
- *Theoretically 60 messages in one 3kHz bandwidth*
- *The software used allows you to select where in the 3kHz the message is placed*

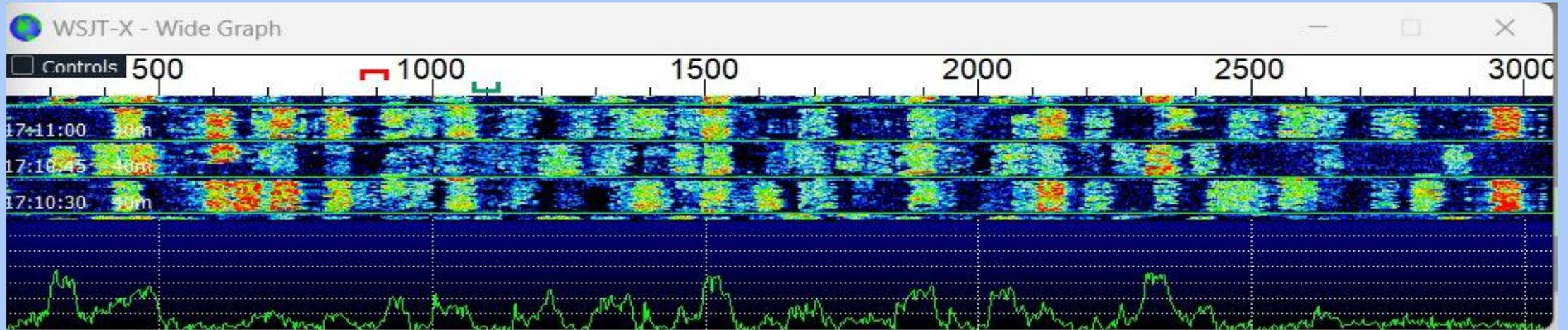
# FT-8 - CQ G0MGMK I091



Offset of +1kHz from 7.074MHz



# Decoding



- ***The signal received is processed and individual ‘streams’ produced.***
  - ***A combination of Fast Fourier Transforms, COSTA arrays and other techniques.***
- ***The channels are decoded and displayed in WSJT/JTDX***

# *IMPORTANT!*



# *Time!*

- *Computer clock must be no more than 1.8 secs adrift from atomic time*
- *Sync using JTSync, Meinberg or similar app (or Windows)*



# *FT4/8 is a WEAK SIGNAL mode*

- *Not necessarily low power, but NOT QRO!*
  - *No 'Spinal Tap'!*
- *High duty-cycle – Don't fry your finals*
  - *FT-710 50W max (but my mAT-30 says 60W for digi modes)*
- *I generally run at 35W*
- *Furthest confirmed QSO is VK2LAW, 10592 miles, 20m, FT8*
  - *(Shortest was G2DD – 2 miles, 40m!)*
- *Using my QMX+ at 4.5W on 20m, with a ¼ wave whip, signal was heard in Japan*



# *What equipment is needed?*

- *A SSB capable transceiver with CAT control*
- *A computer (Windows, Mac, Linux)*
- *A way to get sound to/from computer and transceiver*
  - *Some transceivers have a built-in USB attached sound card*
  - *Separate USB 'dongle'*
  - *A way to get CAT commands from USB/Serial on computer to transceiver*
- *Software – WSJT-X or JTDX –*
  - *other software is available.*
- *Optionally GridTracker and/or JTAlert in addition*



# My Setup

(FT-710 has built-in soundcard)



Doublet in the loft

Yaesu FT-710 (with external Mat-30 AMU)

USB port

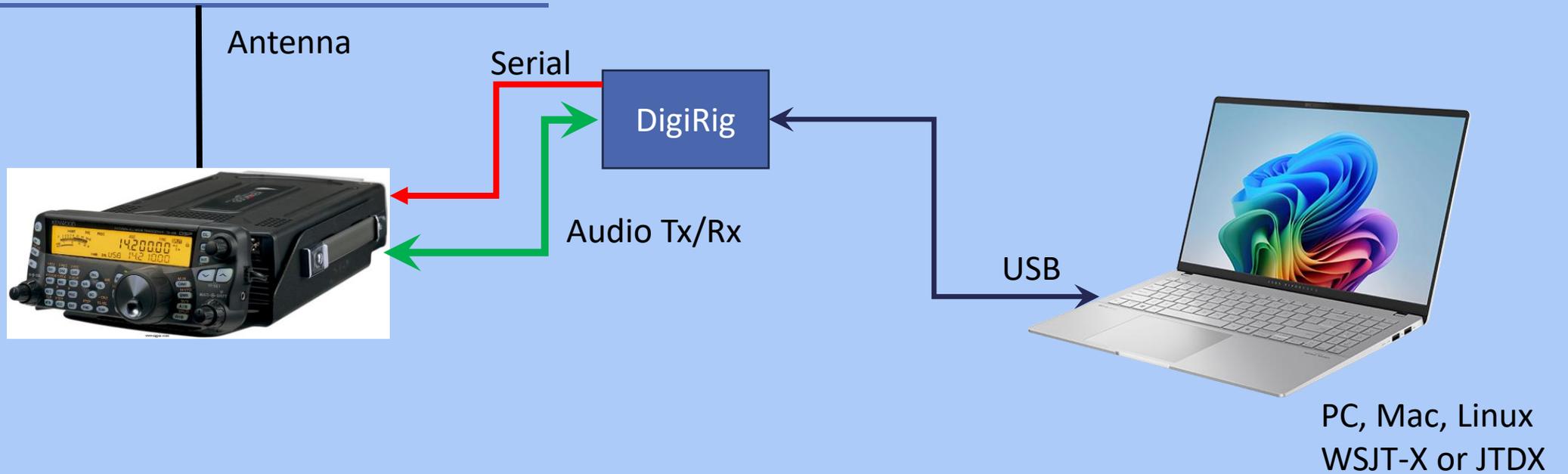


Two COMM ports presented to computer

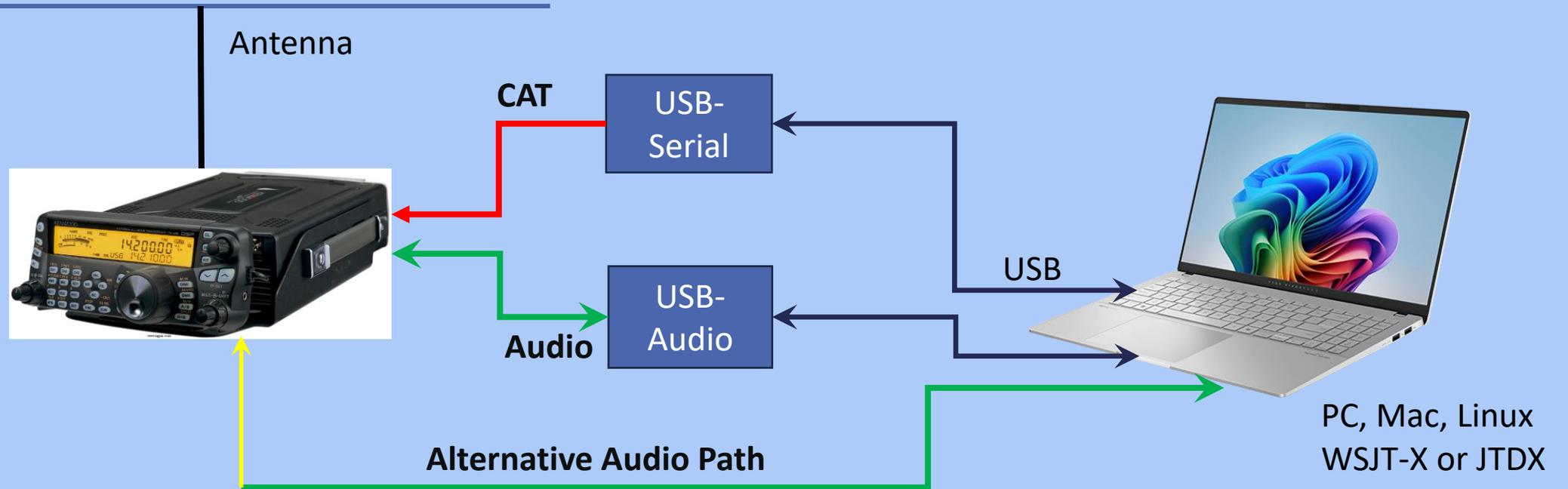
- Asus Vivobook Ryzen 7
- 2GHz 24G Ram
- Windows 11 Home
- WSJT-X 2.7
- GridTracker
- JTSync
- Log4OM
- OmniRig
- PSKReporter (Web)



# Generic Setup Using DigiRig



# Generic Setup



# WSJT-X and Gridtracker

WSJT-X v2.7.0 by K1JT et al.

File Configurations View Mode Decode Save Tools Help

Band Activity						Rx Frequency					
UTC	dB	DT	Freq	Message		UTC	dB	DT	Freq	Message	
173230	-9	-0.1	250	~ CQ PD2MAC J022	Netherlands	172900	10	0.0	883	~ CQ F4GND IN98	France
173230	4	0.0	2104	~ CQ PD1BER J022	Netherlands	172930	9	0.0	883	~ R70V F4GND -20	
173230	-14	0.2	200	~ CQ IW2NEF JN46	Italy	173000	11	0.0	883	~ R70V F4GND -15	
173230	15	-0.1	2766	~ CQ ON6SAT J020	Belgium	173030	10	0.0	883	~ G7RCQ F4GND -08	
173230	-3	-0.0	782	~ CQ DF100KW7J	Germany	173100	5	0.0	883	~ G7RCQ F4GND RR73	
173230	10	0.2	2468	~ CQ F4IDT JN16	France	173130	7	0.0	883	~ R70V F4GND -14	
173230	-9	-0.1	1242	~ CQ IW2MLJ JN46	Italy	173200	9	0.0	883	~ R70V F4GND -19	
173230	-6	-1.6	1680	~ CQ SP3HRN J071	Poland	173230	4	0.0	883	~ R70V F4GND -19	
173230	-6	0.0	2804	~ CQ RJ6B KN95	EU Russia						
173230	-1	0.1	1827	~ CQ MWORHD IO72	Wales						
173230	-19	0.5	2983	~ CQ 2E0VDS J002	England						
173230	-20	-0.1	2963	~ CQ A41HA LL93	Oman						
173230	-20	-0.0	1551	~ CQ LZ1ZF KN22	Bulgaria						
----- 40m -----											
173245	4	0.0	663	~ CQ SN100N	Poland						
173245	-6	0.0	1422	~ CQ IN3IZQ JN56	Italy						
173245	-13	0.3	2052	~ CQ RL2F K004	Kaliningrad						
173245	-12	-0.1	1397	~ CQ YR1600VT	Romania						
173245	-13	0.5	1499	~ CQ RT7B KN95	EU Russia						
173245	-24	0.1	1326	~ CQ TA4SSK KM57	AS Turkey						
----- 40m -----											
173300	-7	-0.1	250	~ CQ PD2MAC J022	Netherlands						
173300	-11	0.2	200	~ CQ IW2NEF JN46	Italy						
173300	9	0.0	2104	~ CQ PD1BER J022	Netherlands						
173300	15	-0.1	2766	~ CQ ON6SAT J020	Belgium						
173300	-1	0.1	1182	~ CQ R60P KN88	EU Russia						
173300	-6	-0.1	1242	~ CQ IW2MLJ JN46	Italy						
173300	0	0.1	1827	~ CQ MWORHD IO72	Wales						
173300	4	0.0	853	~ CQ F4GND IN98	France						
173300	7	-1.6	1680	~ CQ SP3HRN J071	Poland						
173300	-12	-0.0	1551	~ CQ LZ1ZF KN22	Bulgaria						
173300	-4	0.0	2803	~ CQ RJ6B KN95	EU Russia						
173300	-1	-0.1	830	~ CQ DK4RH J031	Germany						
173300	-13	0.5	2984	~ CQ 2E0VDS J002	England						
173300	-20	0.7	2242	~ CQ LZ LZ1DIO KN32	Bulgaria						

CQ only   Log QSO   Stop   **Monitor**   Erase   **Decode**   Enable Tx   Halt Tx   Tune    Menus

40m   **7.074 000**   Tx even/1st    Hold Tx Freq

H   DX Call   DX Grid   Tx 1325 Hz   Pwr

FT8   GM3DRA   IO86   Rx 883 Hz

FT4   Az: 347   364 mi   Report -9

MSK   Lookup   Add    Auto Seq   CQ: First

**2026 Feb 09**  
**17:33:15**

Receiving   FT-710   FT8   Last Tx: GM3DRA G0MGK 73   51   0/15   WD:3m

GridTracker2 [Band: 40m Mode: FT4 Layer: Grids]

**-74.869, 39.001 8913mi 167° KB95MD**

**GridTracker2**  
 7.074.000 Hz (40m) FT8  
 Mon 09 Feb 2026 17:33:15 UTC  
**GM3DRA IO86 -9**  
 Scotland 363mi 347°

**DECODE**  
 Rx Calls **1033** QSO **4880**  
 Rx DXCC **55** QSL **3050**  
 Clear Live   Clear Log

**Map View Filters**  
 Band **Auto**  
 Mode **FT4**  
 Prop **Mixed**  
 Data **Live**  
 Award **None**

Logged to TQSL  
 Logged to eQSL.cc  
 Logged to QRZ.com  
 Logged to Backup  
 Logged to Log4OM  
 ▲ New QSO GM3DRA ▲

WSJT-X - Wide Graph

Controls 500   1000   1500   2000   2500   3000

Bins/Pixel 4   Start 200 Hz   Palette   Adjust...    Flatten    Ref Spec   Spec 40 %  
 Split 2500 Hz   N Avg 2   Fldigi   Cumulative   Smooth 1



# WSJT Settings - General

Choose to check or  
uncheck after testing  
both!

The screenshot shows the 'Settings' dialog box for WSJT, with the 'General' tab selected. The 'Station Details' section contains fields for 'My Call: G0MGK', 'My Grid: IO91NJ', a checked 'AutoGrid' checkbox, and 'IARU Region: Region 1'. The 'Message generation for type 2 compound callsign holders' is set to 'Full call in Tx3'. The 'Display' section has several checked options: 'Blank line between decoding periods', 'Display distance in miles', 'Tx messages to Rx frequency window', and 'Show DXCC, grid, and worked-before status'. There are also buttons for 'Font...' and 'Decoded Text Font...'. The 'Behavior' section has 'Double-click on call sets Tx enable' and 'Disable Tx after sending 73' checked. Other options include 'Monitor off at startup', 'Monitor returns to last used frequency', 'Calling CQ forces Call 1st', 'Alternate F1-F6 bindings', 'CW ID after 73', 'Enable VHF and submode features', 'Allow Tx frequency changes while transmitting', 'Single decode', and 'Decode after EME delay'. At the bottom right, there are 'Tx watchdog: 3 minutes' and 'Periodic CW ID Interval: 0' settings, and 'OK' and 'Cancel' buttons.

Settings

General Radio Audio Tx Macros Reporting Frequencies Colours Advanced

Station Details

My Call: G0MGK My Grid: IO91NJ  AutoGrid IARU Region: Region 1

Message generation for type 2 compound callsign holders: Full call in Tx3

Display

Start new period decodes at top Font...

Blank line between decoding periods Decoded Text Font...

Display distance in miles

Tx messages to Rx frequency window

Show DXCC, grid, and worked-before status  Show principal prefix instead of country name

Highlight DX Call in message  Highlight DX Grid in message

Behavior

Monitor off at startup  Enable VHF and submode features

Monitor returns to last used frequency  Allow Tx frequency changes while transmitting

Double-click on call sets Tx enable  Single decode

Disable Tx after sending 73  Decode after EME delay

Calling CQ forces Call 1st

Alternate F1-F6 bindings Tx watchdog: 3 minutes

CW ID after 73 Periodic CW ID Interval: 0

OK Cancel

# WSJT Settings - Radio

*Get port numbers from  
Windows Device  
Manager*

Settings

General Radio Audio Tx Macros Reporting Frequencies Colours Advanced

Rig: Yaesu FT-710 Poll Interval: 1 s

CAT Control

Serial Port: COM5

Serial Port Parameters

Baud Rate: 38400

Data Bits

Default  Seven  Eight

Stop Bits

Default  One  Two

Handshake

Default  None  
 XON/XOFF  Hardware

Force Control Lines

DTR:  RTS:

Update Hamlib

64-bit  32-bit Update Hamlib Revert Update

In use: Hamlib 4.6.1 2025-01-21T09:43:13Z SHA=cb77f3 64-bit  
Backed up: Hamlib 4.6.1 2025-01-21T09:43:13Z SHA=cb77f3 64-bit

PTT Method

VOX  DTR  
 CAT  RTS

Port: COM6

Transmit Audio Source

Rear/Data  Front/Mic

Mode

None  USB  Data/Pkt

Split Operation

None  Rig  Fake It

Test CAT Test PTT

OK Cancel

# Ports in Device Manager

CAT

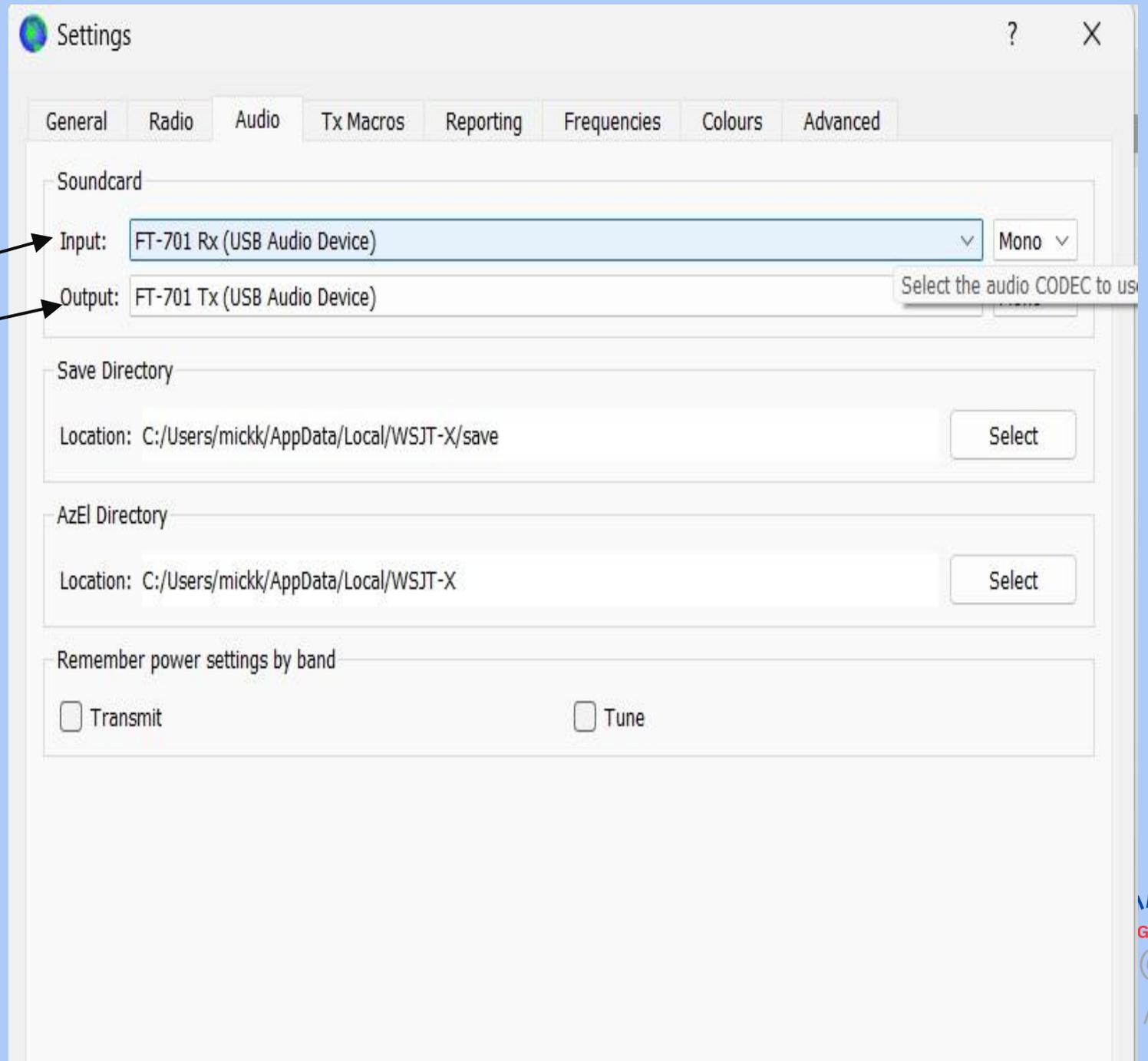


PTT



# WSJT Settings - Audio

***Rename Audio Devices using Windows Control Panel to give them sensible names***



# WSJT Settings - Colours

*My settings. Personal Preference*

The screenshot shows the 'Settings' dialog box with the 'Colours' tab selected. The 'Decode Highlighting' section contains a list of 17 items, each with a checkbox and a colored background. The checked items are: 'New Call' (green), 'My Call in message' (red), 'Transmitted message' (yellow), 'New DXCC [f/g unset]' (magenta), and 'New Call on Band' (cyan). The other items are unchecked. Below the list is a 'Reset Highlighting' button. The 'Highlight by Mode' section has four unchecked checkboxes: 'Highlight by Mode', 'Only grid Fields sought', 'Include extra WAE entities', and 'Highlight also messages with 73 or RR73'. A 'Rescan ADIF Log' button is to the right. The 'Logbook of the World User Validation' section has a text field for 'Users CSV file URL' containing 'http://lotw.arrl.org/lotw-user-activity.csv', a 'Fetch Now' button, and a dropdown for 'Age of last upload less than:' set to '365 days'. Below this, it says 'Loaded 214107 records from LotW.'. The 'CTY File Download' section shows 'CTY File Version: VER20260131' and a 'Download Latest CTY.dat' button. At the bottom are 'OK' and 'Cancel' buttons.

Settings

General Radio Audio Tx Macros Reporting Frequencies Colours Advanced

Decode Highlighting

- New Call
- CQ in message
- My Call in message
- Transmitted message
- New DXCC on Band
- New DXCC [f/g unset]
- New Call on Band
- New CQ Zone [f/g unset]
- New Continent [f/g unset]
- New CQ Zone on Band
- New ITU Zone
- New ITU Zone on Band
- New Continent on Band
- New Grid [f/g unset]
- New Grid on Band
- LoTW User [b/g unset]

Reset Highlighting

Highlight by Mode Rescan ADIF Log

Only grid Fields sought

Include extra WAE entities

Highlight also messages with 73 or RR73

Logbook of the World User Validation

Users CSV file URL:  Fetch Now

Age of last upload less than:  Loaded 214107 records from LotW.

CTY File Download

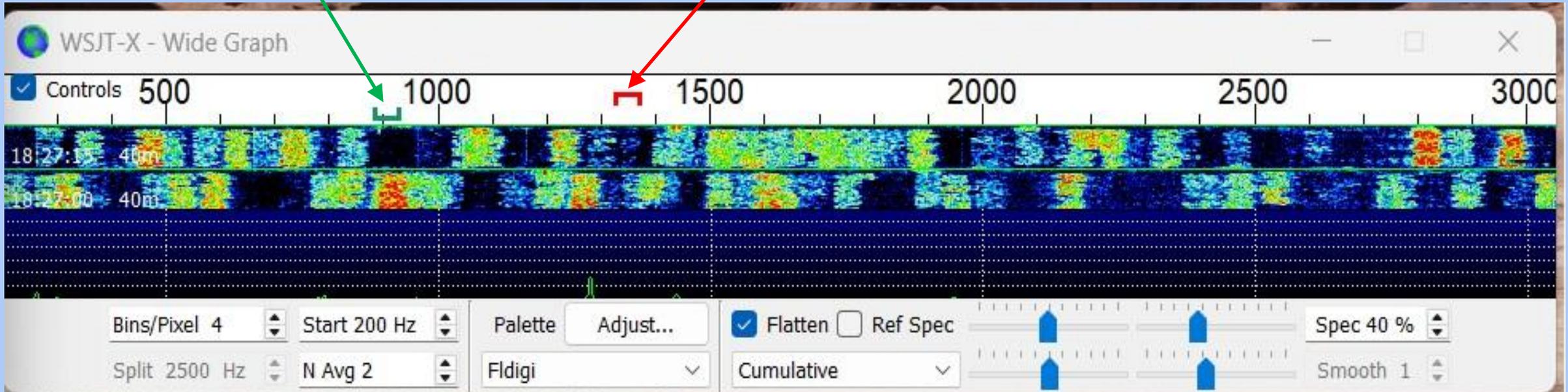
CTY File Version: VER20260131 Download Latest CTY.dat

OK Cancel

# WSJT Waterfall

*Rx Frequency (offset)  
– click to set*

*Tx Frequency (offset)  
– shift-click to set*



Set width to fit on screen

Adjust Bins/Pixel to show 3kHz bandwidth

# WSJT – Main Window

The screenshot shows the WSJT-X v2.7.0 interface. At the top, there are menu options: File, Configurations, View, Mode, Decode, Save, Tools, Help. Below the menu is a 'Band Activity' pane on the left and an 'Rx Frequency' pane on the right. Both panes display a table of received signals with columns for UTC, dB, DT, Freq, and Message. The 'Band Activity' pane shows a list of signals from 085245 to 085315 UTC, with various call signs and countries. The 'Rx Frequency' pane shows a few signals, including CQ G0JEI I093 and M7ECR G0JEI -07. Below the panes is a control bar with buttons for 'CQ only', 'Log QSO', 'Stop', 'Monitor', 'Erase', 'Decode', 'Enable TX', 'Halt TX', 'Tune', and 'Menus'. The 'Monitor' button is highlighted with a red arrow. Below the control bar is a large display area showing the current frequency '7.074 000' and a 'Hold Tx Freq' checkbox. To the right of the display is a 'Generate Std Msgs' section with a list of messages and 'Tx' buttons. At the bottom, there is a status bar showing 'Receiving', 'FT-710', 'FT8', '25', '3/15', and 'WD:3m'.

UTC	dB	DT	Freq	Message
085245	11	-0.1	1030	~ CQ DJ2MS J030 Germany
085245	3	0.9	1850	~ CQ DK0KG JN49 Germany
085245	-3	0.5	2103	~ CQ MOELS J001 England
085245	0	0.3	1394	~ CQ DL3HF J030 Germany
085245	-8	0.4	2403	~ CQ PA3DNA J032 Netherlands
085245	-14	0.3	854	~ CQ IN3IZQ JN56 Italy
085245	-21	0.3	2576	~ CQ SQ9DJQ K000 Poland
085245	-8	0.2	435	~ CQ GM5CAR IO85 Scotland
085245	-5	0.2	1418	~ CQ TF5B IP05 Iceland
085245	-14	0.2	985	~ CQ IZ4HMQ JN54 Italy
085245	-7	1.1	2014	~ CQ M7KMN IO92 England
----- 40m -----				
085300	8	0.2	1681	~ CQ G3OKYZ IN89 Jersey
085300	-5	0.4	722	~ CQ MIONWA IO64 N. Ireland
085300	-4	0.3	1069	~ CQ DB2VS JN39 Germany
085300	-7	0.2	1182	~ CQ F4SNF IN97 France
085300	-1	0.3	865	~ CQ F4VWS IN88 France
085300	-1	0.3	2272	~ CQ ON4JPV J020 Belgium
085300	-9	0.3	2191	~ CQ DJ3JD J052 Germany
085300	-3	0.2	1712	~ CQ ON8PB J020 Belgium
085300	-16	0.8	1103	~ CQ FI1QH JN27 France
085300	-9	0.4	2243	~ CQ DM50DMS Germany
----- 40m -----				
085315	-1	0.3	2491	~ CQ G8BCG IO70 England
085315	2	0.9	1850	~ CQ DK0KG JN49 Germany
085315	-5	0.5	2103	~ CQ MOELS J001 England
085315	-1	0.3	1395	~ CQ DL3HF J030 Germany
085315	9	-0.1	1030	~ CQ DJ2MS J030 Germany
085315	-8	0.4	2402	~ CQ PA3DNA J032 Netherlands
085315	2	0.4	920	~ CQ MW6IUT IO81 Wales
085315	-8	0.2	435	~ CQ GM5CAR IO85 Scotland
085315	-4	0.2	1418	~ CQ TF5B IP05 Iceland
085315	-24	0.3	2576	~ CQ SQ9DJQ K000 Poland
085315	-6	1.1	2014	~ CQ M7KMN IO92 England
085315	-14	0.3	855	~ CQ IN3IZQ JN56 Italy

**Checked: Tx on 0 and 30 seconds**  
**Unchecked: Tx on 15 and 45 seconds**

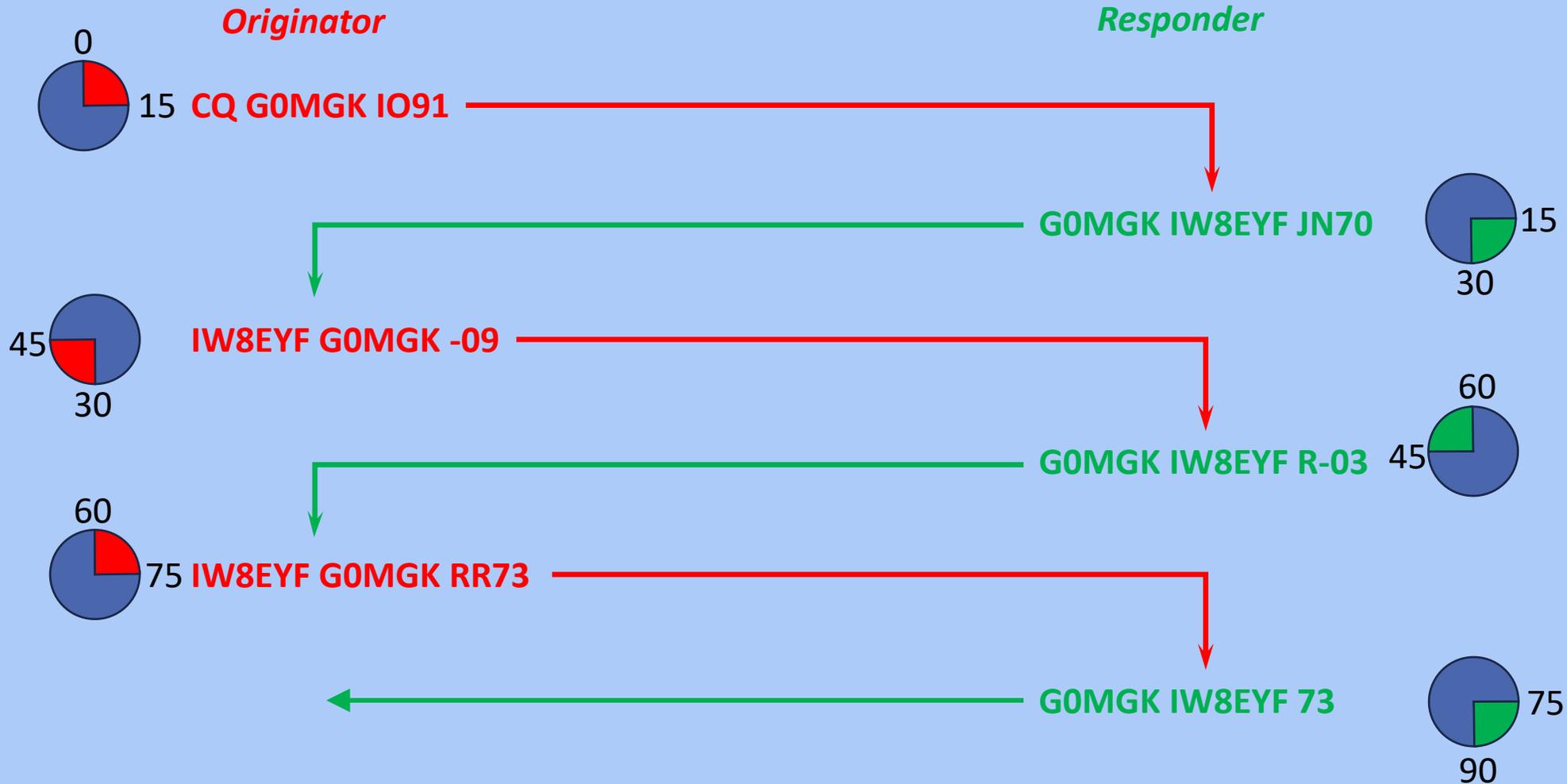
**Click: Erases RH pane**  
**Double click: Erases both panes**

**Holds offset as set on waterfall (red mark)**



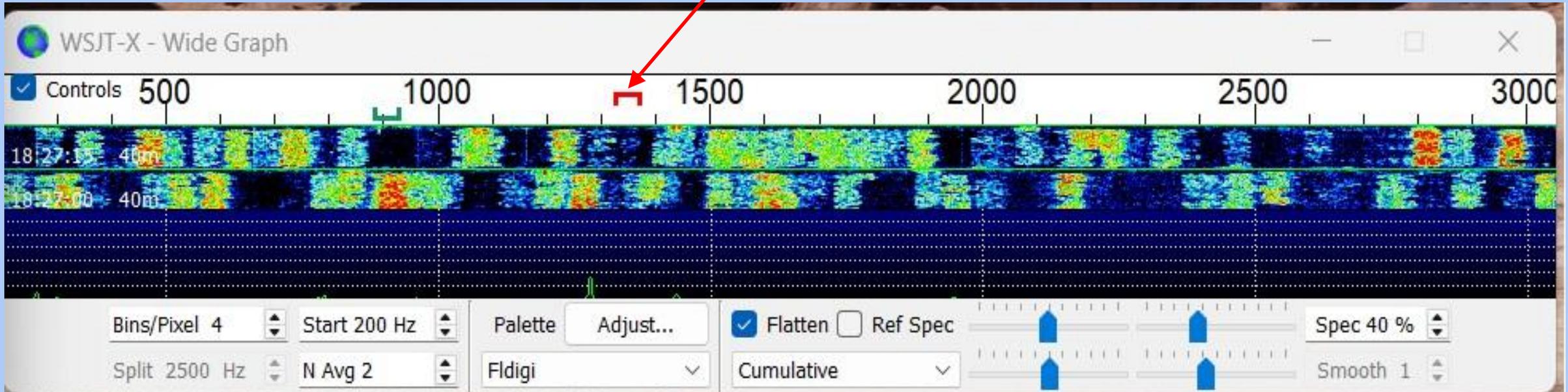
# A Typical QSO

Note: Each over is 15 seconds for FT8 (7.5 for FT4)



# Making a CQ Call

*Choose a clear point  
on the waterfall*



# Making a CQ Call

**WSJT-X v2.7.0 by K1JT et al.**

File Configurations View Mode Decode Save Tools Help

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
160315	-24	0.3	1926	~ CQ DK8RE JO61 Germany	160350	Tx	1202	~ CQ GOMGK IO91	
160315	-23	0.2	284	~ CQ SV2CLJ KN10 Greece					
160315	-24	0.2	830	~ CQ RC60D KN87 EU Russia					
160315	-24	0.3	301	~ CQ VA7ON CN89 Canada					
----- 20m -----									
160330	14	0.3	889	~ CQ IZ5CMG JN53 Italy					
160330	15	0.3	1349	~ CQ HA18F JN86 Hungary					
160330	-19	0.2	2759	~ CQ LZ07RN Bulgaria					
160330	-15	0.5	1577	~ CQ R6TY LN14 EU Russia					
160330	-24	0.3	1639	~ CQ GI4RNP IO74 N. Ireland					
160330	-15	0.3	733	~ CQ SP9HAN IO90 Poland					

CQ only  Log QSO         Menu

20m **14.074 000**  Tx even/1st  Hold Tx Freq

H DX Call DX Grid Tx 1202 Hz

FT8 OK1DXR JO60 Rx 1048 Hz

Az: 90 610 mi Report 4

MSK    Auto Seq CQ: First

Q65 **2026 Feb 10 16:03:54**

JT65

Tx: CQ GOMGK IO91 FT-710 FT8 Last Tx: OK1DXR GOMGK RR73 26 9/15 WD:3m

**GridTracker2**  
14.074.000 Hz (20m) FT8  
Tue 10 Feb 2026 16:03:53 UTC  
OK1DXR JO60 +4  
Czech Republic 606mi 90°

**TRANSMIT**

Rx Calls **34** QSO **4884**  
Rx DXCC **18** QSL **3114**

**Map View Filters**

Band **Auto**  
Mode **FT4**  
Prop **Mixed**  
Data **Live**  
Award **None**

Logged to TQSL  
Logged to eQSL.cc  
Logged to QRZ.com  
Logged to Backup  
Logged to Log4OM  
▲ New QSO OK1DXR ▲

**WSJT-X - Wide Graph**

Controls 500 1000 1500 2000 2500 3000

16:03:30 20m  
16:03:15 20m  
16:03:00 20m

# Response to CQ

WSJT-X v2.7.0 by K1JT et al.

File Configurations View Mode Decode Save Tools Help

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
160315	-24	0.3	1926	~ CQ DK8RE J061 Germany	160350	Tx	1202	~ CQ GOMGK IO91	
160315	-23	0.2	284	~ CQ SV2CLJ KN10 Greece	160400	-24	0.2	1043	~ SV2CLJ DM3NA R-14
160315	-24	0.2	830	~ CQ RC60D KN87 EU Russia	160415	Tx	1202	~ CQ GOMGK IO91	
160315	-24	0.3	301	~ CQ VA7ON CN89 Canada	160430	-24	0.2	1043	~ SV2CLJ DM3NA 73
----- 20m -----									
160330	14	0.3	889	~ CQ IZ5CMG JN53 Italy	160445	Tx	1202	~ CQ GOMGK IO91	
160330	15	0.3	1349	~ CQ HA18F JN86 Hungary	160500	-17	0.5	540	~ GOMGK IW8EYF JN70
160330	-19	0.2	2759	~ CQ LZ07RN Bulgaria	160515	Tx	1202	~ IW8EYF GOMGK -17	
160330	-15	0.5	1577	~ CQ R6TY LN14 EU Russia					
160330	-24	0.3	1639	~ CQ GI4RNP IO74 N. Ireland					
160330	-15	0.3	733	~ CQ SP9HAN JO90 Poland					
----- 20m -----									
160400	13	0.3	1349	~ CQ HA18F JN86 Hungary					
160400	3	0.1	941	~ CQ IK2UEX JN45 Italy					
160400	-22	0.2	2759	~ CQ LZ07RN Bulgaria					
160400	-14	0.7	1702	~ CQ HG80EARTH Hungary					
160400	-16	0.5	1578	~ CQ R6TY LN14 EU Russia					
----- 20m -----									
160430	6	-0.1	2241	~ CQ EA3HKA JN11 Spain					
160430	-5	0.7	1701	~ CQ HG80EARTH Hungary					
160430	-17	0.5	1578	~ CQ R6TY LN14 EU Russia					
160430	-23	0.3	732	~ CQ SP9HAN JO90 Poland					
160430	-19	0.2	1426	~ CQ OZ7DR JO55 Denmark					
160430	-24	0.3	1639	~ CQ GI4RNP IO74 N. Ireland					
160430	-24	0.3	2000	~ CQ PASCOR JO23 Netherlands					
----- 20m -----									
160500	10	-0.1	2242	~ CQ EA3HKA JN11 Spain					
160500	13	0.3	889	~ CQ IZ5CMG JN53 Italy					
160500	-8	0.2	2185	~ CQ HG0NPJ JN97 Hungary					
160500	-14	0.3	1426	~ CQ OZ7DR JO55 Denmark					
160500	-6	0.3	1876	~ CQ YO4NT KN43 Romania					
160500	-18	0.3	733	~ CQ SP9HAN JO90 Poland					
160500	-22	0.5	1578	~ CQ R6TY LN14 EU Russia					
160500	-24	0.3	1640	~ CQ GI4RNP IO74 N. Ireland					

GridTracker2 [Band: 20m Mode: FT4 Layer: Grids]

40.959, -107.296 4679mi 308° DN60IX

**GridTracker2**

14.074.000 Hz (20m) FT8  
Tue 10 Feb 2026 16:05:15 UTC  
IW8EYF JN70 -17  
Italy 1067mi 128°

**TRANSMIT**

Rx Calls **45** QSO **4884**  
Rx DXCC **21** QSL **3114**

Clear Live Clear Log

**Map View Filters**

Band **Auto**  
Mode **FT4**  
Prop **Mixed**  
Data **Live**  
Award **None**

Tue 10 Feb 2026 16:05:11 UTC  
GOMGK IW8EYF JN70  
Logged to TQSL  
Logged to eQSL.cc  
Logged to QRZ.com  
Logged to Backup

CQ only
  Log QSO
  Stop
  Monitor
  Erase
  Decode
  Enable Tx
  Halt Tx
  Tune
  Menus

20m ● **14.074 000**  Tx even/1st  Hold Tx Freq

Tx 1202 Hz Rx 540 Hz Report -17

Generate Std Msgs Next Now

IW8EYF GOMGK IO91 Tx 1

IW8EYF GOMGK -17 Tx 2

IW8EYF GOMGK R-17 Tx 3

IW8EYF GOMGK RR73 Tx 4

Alerts

Type	Value	Notify	Repeat	Filename	Alerted	Last Message	When
QRZ	GOMGK	PopUp	Inf	-	Yes	GOMGK IW8EYF JN70	Tue 10 Feb 2026 16:05:11 UTC

Tx: IW8EYF GOMGK -17 FT-710 FT8 Last Tx: CQ GOMGK IO91 25

WSJT-X - Wide Graph

Controls 500 1000 1500 2000 2500 3000



# QSO Complete

The screenshot displays the WSJT-X v2.7.0 interface. A 'Log QSO' dialog box is open, showing a completed QSO with the following details:

- Call: IW8EYF
- Start: 10/02/2026 16:05:45
- End: 10/02/2026 16:05:45
- Mode: FT8
- Band: 20m
- Rpt Sent: -17
- Rpt Rcvd: -03
- Grid: JN70
- Name: [Empty]
- Tx power: 25
- Operator: [Empty]
- Exch sent: [Empty]
- Rcvd: [Empty]
- Prop Mode: [Empty]

The main interface shows a list of received QSOs:

UTC	dB	DT	Freq	Message
160350	Tx	1202	~	CQ GOMGK IO91
160400	-24	0.2	1043	~ SV2CLJ DM3NA R-14
160415	Tx	1202	~	CQ GOMGK IO91
160430	-24	0.2	1043	~ SV2CLJ DM3NA 73
160445	Tx	1202	~	CQ GOMGK IO91
160500	-17	0.5	540	~ GOMGK IW8EYF JN70
160515	Tx	1202	~	IW8EYF GOMGK -17
160530	-16	0.5	540	~ GOMGK IW8EYF R-03
160545	Tx	1202	~	IW8EYF GOMGK RR73
160600	-12	0.5	539	~ GOMGK IW8EYF 73

The 'GridTracker2' window shows a map of Europe with the location 29.979, -106.067 5222mi 300° DL69XX. The 'GridTracker2' panel on the right displays the following information:

- GridTracker2
- 14.074.000 Hz (20m) FT8
- Tue 10 Feb 2026 16:06:14 UTC
- IW8EYF JN70 -17
- Italy 1067mi 128°
- DECODE
- Rx Calls: 54 QSO: 4884
- Rx DXCC: 24 QSL: 3114
- Clear Live Clear Log
- Map View Filters
- Band: Auto
- Mode: FT4
- Prop: Mixed
- Data: Live
- Award: None
- Tue 10 Feb 2026 16:06:11 UTC
- GOMGK IW8EYF 73
- Tue 10 Feb 2026 16:05:41 UTC
- GOMGK IW8EYF R-03
- Tue 10 Feb 2026 16:05:11 UTC
- GOMGK IW8EYF JN70

The 'Wide Graph' window shows a frequency spectrum from 500 to 3000 Hz. The 'Alerts' window shows a table of alerts:

Type	Value	Notify	Repeat	Filename	Alerted	Last Message	When
QRZ	GOMGK	PopUp	Inf	-	Yes	GOMGK IW8EYF 73	Tue 10 Feb 2026 16:06:11 UTC

The bottom status bar shows 'Receiving' and 'FT-710' with a signal strength of 28. The system tray at the bottom indicates the time is 16:06 on 10/02/2026.

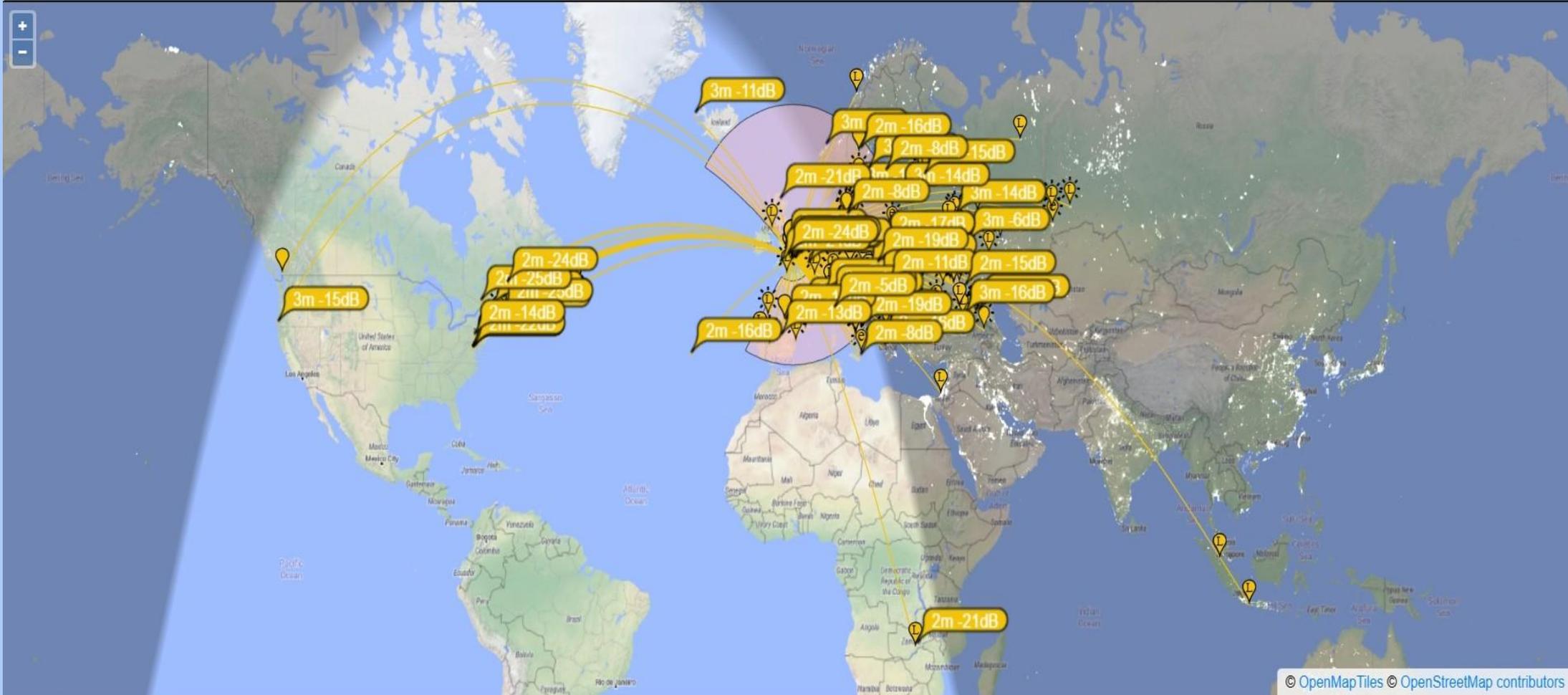


# PSK Reporter - Where did my signal go?

On  show  sent/rcvd by   using  over the last   [Display options](#) [Permalink](#)

Monitoring G0MGK (last heard 2 mins ago). Automatic refresh in 5 minutes. Small markers are the 110 transmitters (show logbook) heard (distance chart) at G0MGK (2362 reports, 75 countries last 24 hours; 18418 reports, 83 countries last week).

There are 1948 active FT8 monitors: 1934 on 20m, 426 on 15m, 394 on 40m, 387 on 10m, 374 on 17m, 367 on 30m, 342 on 12m, 189 on 80m, 94 on 60m, 83 on 160m, 25 on 600m, 24 on 6m, 16 on 2m, 8 on 11m, 4 on 2200m, 3 on 10Ghz, 1 on 8m, 1 on 2.4Ghz. Show all on all bands. Legend



© OpenMapTiles © OpenStreetMap contributors



# Answer a CQ

The screenshot displays the WSJT-X v2.7.0 interface with the GridTracker2 plugin. The main window is split into several sections:

- Band Activity:** A table showing received signals with columns for UTC, dB, DT, Freq, and Message. It lists various stations from France, Wales, Spain, Italy, and Germany.
- Rx Frequency:** A table showing received signals with columns for UTC, dB, DT, Freq, and Message. It lists stations like MW0RHD IO72, PA7ZZ DL8YBL J031, and GOMGK MW0RHD +07.
- Map:** A world map showing the current location at -74.869, 28.756 (191mi 295°) and a grid overlay. The grid square is KB45JD.
- GridTracker2 Panel:** Shows current frequency (7.074000 Hz), mode (FT8), and statistics (49 QSO, 4909 QSL). It includes a 'TRANSMIT' button and 'Map View Filters' for Band (Auto), Mode (FT4), Prop (Mixed), and Data (Live).
- Wide Graph:** A spectral display showing signal activity over time (10:20:00 to 10:20:30) and frequency (500 to 3000 Hz).
- Alerts:** A table showing an alert for 'GOMGK MW0RHD RRR' on Mon 16 Feb 2026 at 10:20:11 UTC.

At the bottom, the Windows taskbar shows the system time as 10:20 on 16/02/2026.



# *Answer a CQ*

- *If the station you want to respond to is transmitting starting at either 0 secs or 30 secs, then CLEAR the Tx Even/1<sup>st</sup> box.*
- *You can then double-click their call*
  - *If you have 'double-click enables TX' set, then WSJT will Tx at 15 or 45 seconds.*
  - *If you DON'T have 'double-click enables TX' set, then click 'Enable TX'*



# *Other Software*

- ***JTDX***
  - *Similar to WSJT*
- ***FT8CN or FT8TW***
  - *Android app*
- ***JT Alert***
  - *Similar to Call Roster on Gridtracker*



# Stop Press!

- ***New – FT2***
  - *Shorter time - 3.8 secs/cycle (FT4 – 7.5secs, FT8 – 15 secs)*
- ***Less sensitive -10.5dB (FT4 -17.5dB, FT8 -21dB)***
- ***More bandwidth – 150Hz***
- ***Software is Decodium, which appears to be a fork of WSJT rc3.0***
- **EXPERIMENTAL!**

# Resources

- Hinson Tips: [https://www.g4ifb.com/FT8\\_Hinson\\_tips\\_for\\_HF\\_DXers.pdf](https://www.g4ifb.com/FT8_Hinson_tips_for_HF_DXers.pdf)
- WSJT: <https://wsjt.sourceforge.io/wsjt.html>
- JTDX: <https://sourceforge.net/projects/jtdx/>
- GridTracker: <https://gridtracker.org/>
- JTAlert: <https://hamapps.com/JTAlert/>
- JTSync: <https://www.dxshell.com/jtsync.html>

