

## **FT4 Tips and Hints – for the 2025 RSGB FT4 Contest Series**

### **Log file for Upload to the RSGB robot**

WSJT-X saves your log as an ADIF file as you are operating, unlike normal logging programmes, and the way this operates means that there is a need to do some housekeeping to separate your contest QSOs from previous ones.

An ADIF file is written to as you make QSOs; this is called **wsjtx\_log.adif**.

Before you start each FT4 contest you will need to relocate your existing wsjtx\_log.adif file; for this we suggest that you rename it. You can access the file to change the name from inside the WSJT-X programme using **File>Open log directory**.

You could rename wsjtx\_log.adif to wsjtx\_log\_old.adif, for instance, by right-mouse clicking on the file name and selecting rename from the list.

Now, when you start operating in the contest, WSJT-X will create a new wsjtx\_log.adif file and will write all your completed QSOs into it.

When you have finished the contest, please upload the wsjtx\_log.adif file to the RSGB contest robot. To help you find the wsjtx\_log.adif file to upload, you might find it easiest to move or copy it to the desktop using **File>Open log directory** from within WSJT-X.

### **Dupe Checking**

WSJT-X can help you avoid working duplicates by using a colour code to differentiate callsigns that are not already in your wsjtx\_log.adif file. To get this to work you can do the following:

From **File, Settings, General**, check the box to select “Show DXCC, grid, and worked before status”

From **File, Settings, Colours**, select only the following:

- My Call in message
- New DXCC on Band
- New Call on Band
- Transmitted message

The 'ticked' boxes can be moved - and positioned in priority order - to the top of the list of boxes.

You can adjust the colours so that new DXCC and stations who you have yet to work, appear in different colours.

### **Configuring the Contest Dial Frequency 3.576**

In WSJT-X, from **File, Settings, Frequencies**, right-mouse click in the working frequencies table and select “Insert ...”. A new window “WSJT-X - Add Frequency” will be launched.

In the “Mode:” pulldown, select “FT4”.

In the “Frequency (MHz):” field, enter “3.576”

Select OK to return to the **File, Settings, Frequencies** tab

Select OK to return to the main WSJT-X window.

The dial frequencies for 40m, 20m, 15m and 10m are the standard FT4 allocations.

Providing FT4 is selected as the WSJT-X mode on the toolbar it should now be possible to select any of the recommended dial frequencies by using the frequency pulldown which is below the “Log QSO” button:

1.843 MHz (160m)  
3.576 MHz (80m)  
7.0475 MHz (40m)  
14.080 MHz (20m)  
21.140 MHz (15m)  
28.180 MHz (10m)

### **Preparing to Operate in a Contest**

In the 2025 FT4 series we will be using standard FT4 format as implemented in WSJT-X V2.6.1 or later or the equivalent in JTDX, MSHV, WSJT-Z etc.  
DO NOT USE the dedicated Contest formats.

If you wish to make it clear that you are operating in a contest, you may amend your “Tx 6” message to start “CQ TEST” or “CQ RSGB”.

You may also disable the “Tx 1” message by double-clicking on the “Tx 1” button as grids are not necessary to exchange for the RSGB HF events.

### **Operating using FT4**

In WSJT-X. Shift-click (WSJT-X) on a clear space on the waterfall to put the red goalpost there – this is where you will transmit. Remember if you are calling CQ you have to stop briefly to see if your frequency is clear as you can only monitor the other cycle on the waterfall.

It is more effective not to “net” on a calling station when you reply to a CQ call but instead to transmit in a clear space on the waterfall in the same audio passband that the calling station is operating in.

It is also most effective to only change your operating audio passband by using the frequency pulldown and following that, to select an audio frequency on which to transmit using the waterfall display. Turning the radio dial may mean that you will not be transmitting in the audio passband where a calling station will be listening.

Gary ZL2IFB has published a useful FT8 Operating Guide ([https://www.g4ifb.com/FT8\\_Hinson\\_tips\\_for\\_HF\\_DXers.pdf](https://www.g4ifb.com/FT8_Hinson_tips_for_HF_DXers.pdf)) which will probably cover any issues that you have queries with.

### **Experiments with automating FT4**

When we describe “automating” this generally means making two things automatic:

1. Logging a QSO and starting to call CQ again (selecting Log then Enable),
2. Aborting when FT4 gets stuck, sending the same message over and over again.

We are not suggesting unattended operation here although of course that may be possible.

If the two items above are happening automatically, this frees the operator to look for new DXCC multipliers or other participants in the contest who they may wish to call.

Logging QSOs automatically and/or enabling transmission automatically will place the operator in the “Open” section in RSGB FT4 Contests.

### **Using WSJT-Z to Automate Logging and CQing**

WSJT-Z is a modification to WSJT-X and in most appearance and functionality it is exactly the same. The program can be downloaded from Source Forge at <https://sourceforge.net/projects/wsjt-z/> and takes the form of a clone of WSJT-X but with a slightly different front -page layout and an additional configuration tab under File>Settings.

### **Suggested setting for WSJT-Z**

On the WSJT-Z configuration tab:

Check Custom WD Timer. This has default settings of 2 for FT8 and 2 for FT4 which seem to work well. The effect of the WD (Watchdog Timer) is to abort the FT4 sequence when a given message is repeated too many times – preventing lock-up.

Under RX Window I select only “Display DXCC in raw view”, which helps identify new multipliers.

Under Misc, I select “Reset WD when clicked anywhere in Z” and “Always respond to stations calling us”.

Under Columns, I select all the options except “Distance”.

On the Main front-page I select the following:

Auto CQ

Hold TX Freq

Double Click on the Tx 1 button so that this first message is disabled

### **Operation using WSJT-Z**

A clear frequency should be selected using the red indicator on the bandmap. With Auto CQ selected WSJT-Z will now call CQ and respond to the first caller.

To maximise the score in the RSGB contest you can now look in the left-hand window and select stations to call who are new multipliers on the band on which you are operating. Your call sequence should start with message Tx 2.

### **Two Radio Operation**

WSJT-Z provides a simple degree of automation with which it becomes relatively simple to operate using two radios and two computers, each on different bands. This requires you to have separate aerials for the different bands plus external bandpass filters to protect the front-end of each radio from the other.

If each radio is dedicated to particular bands, the possibility of making duplicate QSOs is reduced.

It will be necessary to assemble the ADI files from each computer into a single file for upload. This can be achieved simply by using MS Notepad to edit one ADI file and to paste

append the QSOs from the second ADI on the end (omitting the initial header lines before the QSOs start).

Alternatively, I have had some success linking two instances of WSJT-X (or WSJT-Z) to a log file in DXLog, which then compiles a single contiguous log of all FT4 QSOs.