

JTDX / WSJT-X with FTDX101D/MP and DXLab Commander
and a brief word regarding **Omni-Rig**

Created with Microsoft Office Word 2019

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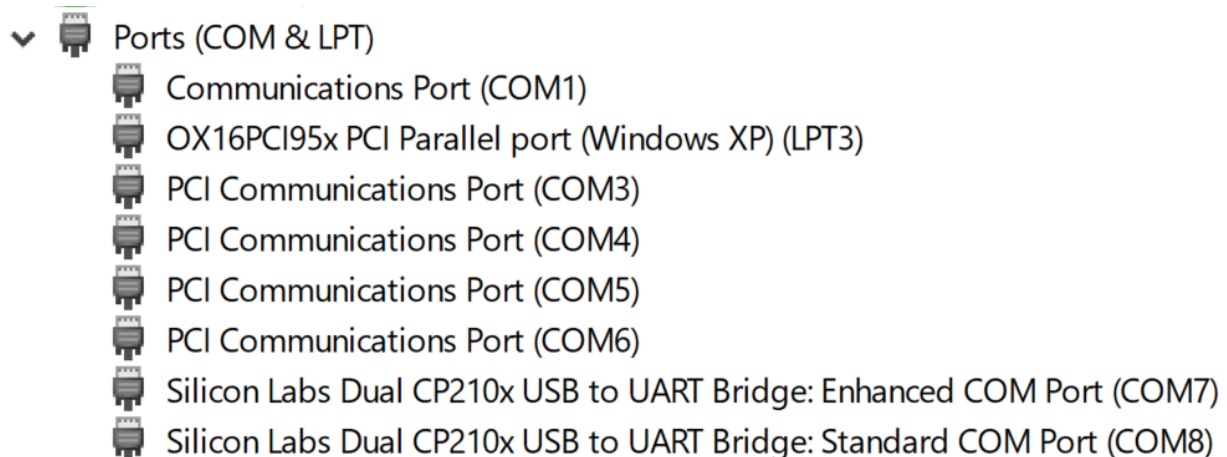
Roy Talbert K9ER

No small part of this is being documented to aid my own memory as time passes. Several screen captures will be used throughout this document.

After reading some posts on the FTDX101 [group](#) regarding difficulties with interfacing the FTDX101 with Commander, I took up the challenge. I had never used [Commander](#), [VSPE](#) (or [Omni-Rig](#)) previously. It is likely that I won't use Commander or Omni-Rig on a regular basis. However, VSPE is a keeper.

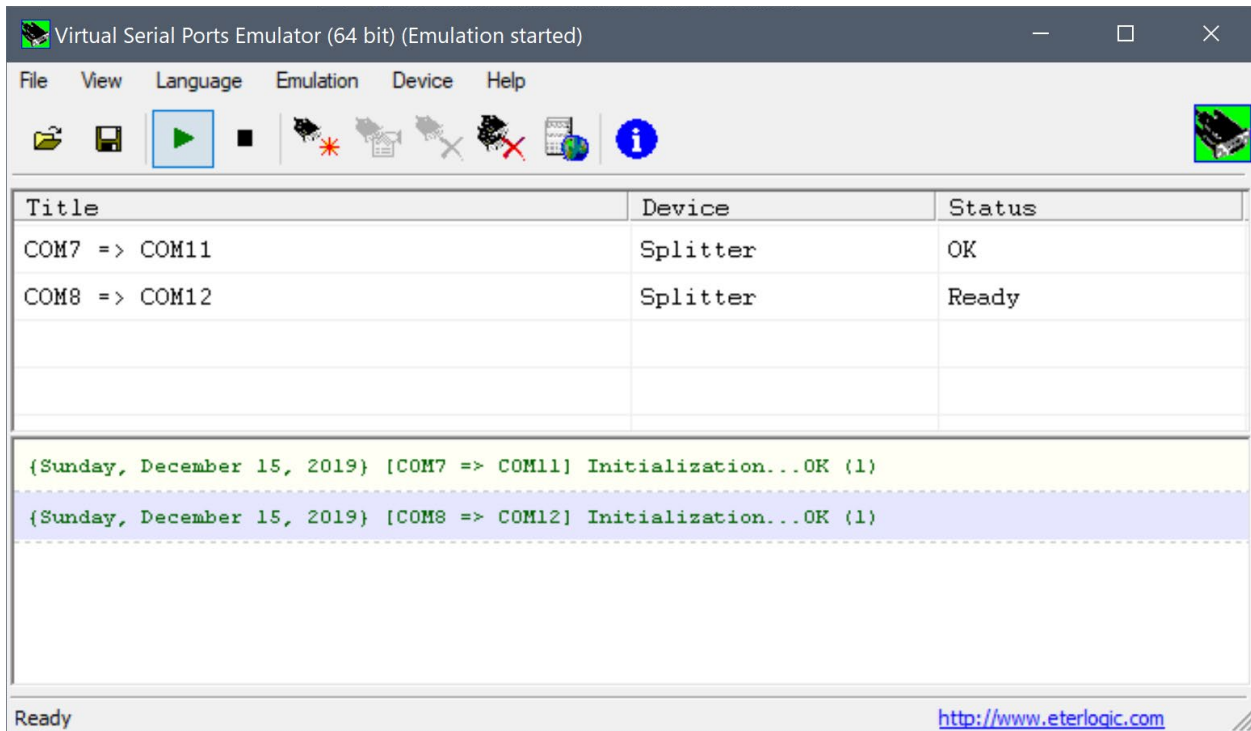
First things first...if the Yaesu [USB drivers](#) have not been downloaded and installed, none of these applications will work with the FTDX101 USB port.

After Installation, this is the appearance of the com ports in my Windows 10 64 device manager:

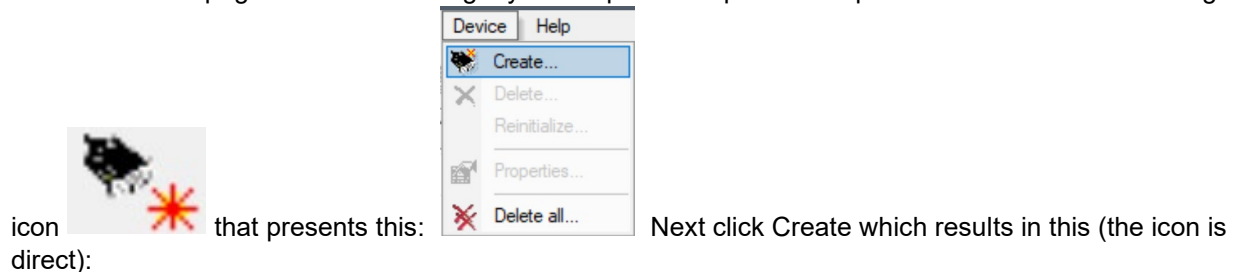


Yes, as can be seen, I have several hardware ports on my machine. The Silicon Labs drivers (com ports 7 and 8) are the 2 of interest, particularly the Enhanced COM Port. I have not been able to make the Standard COM port operate anything but PTT (keeping in mind that I am not a com port expert). The Enhanced COM Port will provide CAT control, bidirectional audio and PTT by itself (amazing...with just one USB cable). I upgraded to the FTDX101MP from an FT-1000MP which required connections via RS232, audio cables, RTTY and PTT. My opinion is that technical progress is good. 😊

On to VSPE. The 32 bit version is free...the 64 bit version (which I have installed) is modestly priced (currently (USD) \$24.95 and well worth it in my opinion). VSPE provides for up to eight com port connections to each created virtual port. As downloaded and installed, VSPE had me frustrated to distraction. 😞 It was not until I found [this article](#) on the web describing the interfacing with included .vspe file that I began to finally see the light. 😊 By comparing the .vspe file with the one I had created (examined using a text editor), it was clear that I had to make changes. The .vspe file is created by saving the results of the setup after the few steps needed to make VSPE compatible with the FTDX101 and the various apps. It is not a difficult process and takes little time to execute. I was not successful trying to edit the .vspe file with a text editor. Screen shots of the VSPE setup follow:

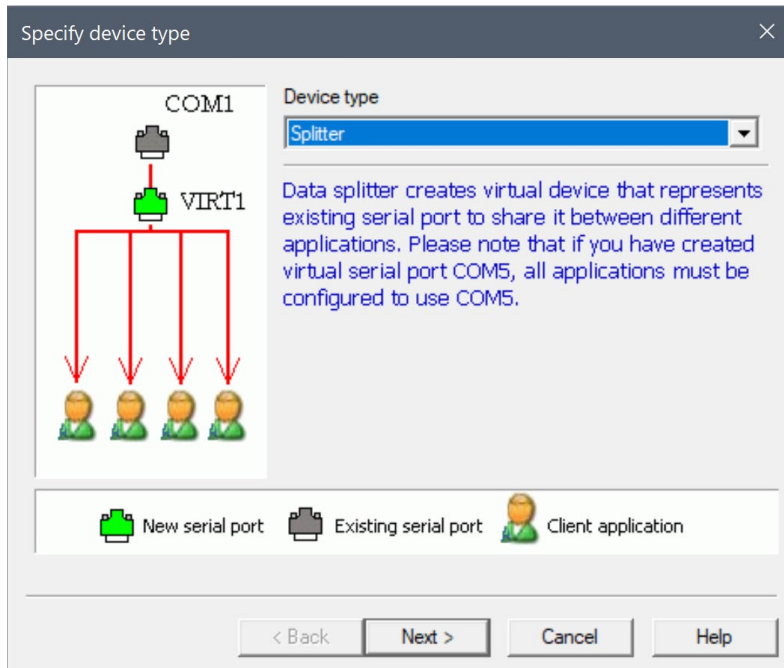


This is the main page of VSPE showing my virtual ports setup. First step is to click the device heading or

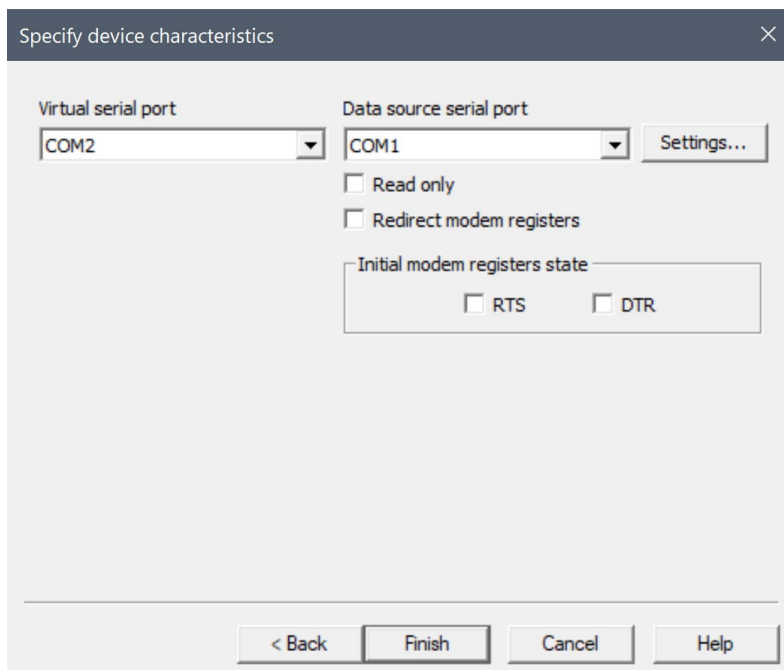


icon that presents this:

Next click Create which results in this (the icon is direct):



Splitter is the device needed. None of the other devices are necessary. After hitting Next, this comes up:

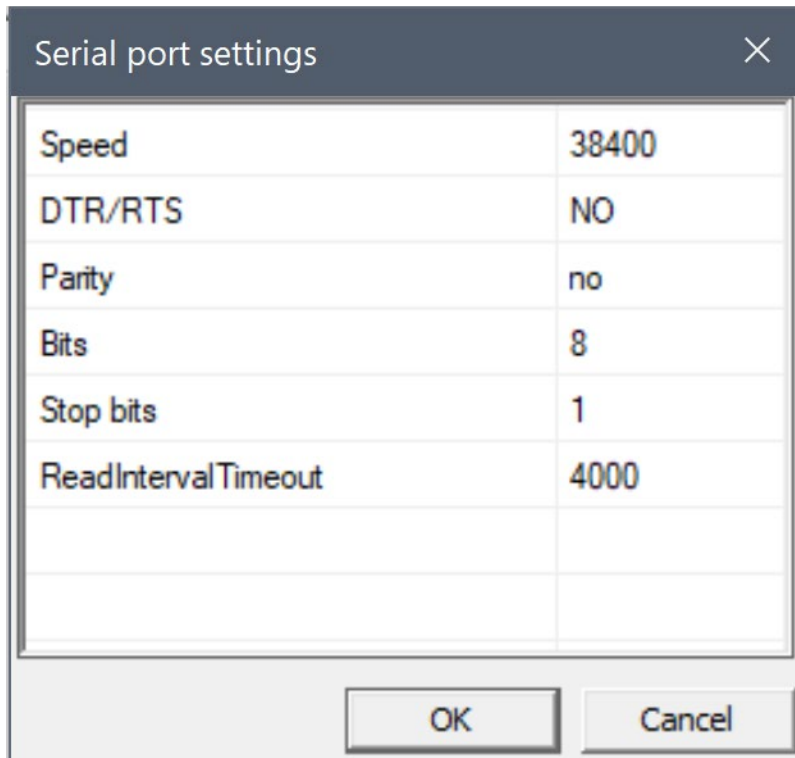


Specify the “Data source serial port” in the drop-down menu as the one in device manager indicating the “Enhanced COM Port” (this will depend on your particular computer, of course).

Specify the “Virtual serial port” in the drop-down menu. It should be any of those presented that are not listed in device manager (to avoid possible conflicts). I chose com 11 (and in a following setup com 12 for the “Standard COM Port”) but the standard com port is unnecessary to accomplish the goal outlined here...strictly a matter of choice. By the way, the virtual com port(s) created with VSPE will not be listed in device manager.

Uncheck the “Redirect modem registers”, RTS and DTR boxes. The “Read only” box will already be unchecked.

Next click the “Settings” button to bring up this:



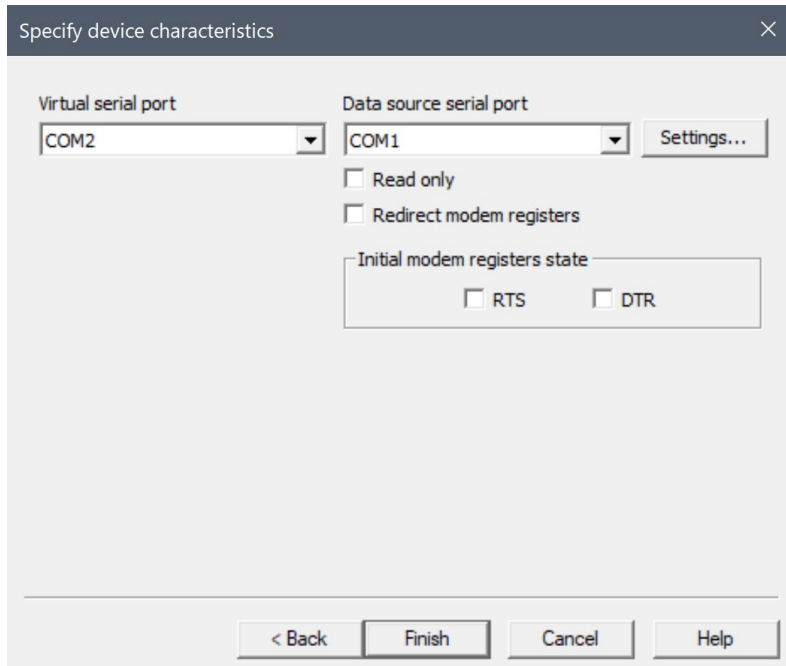
The image shows a dialog box titled "Serial port settings" with a close button (X) in the top right corner. The dialog contains a table with the following settings:

Speed	38400
DTR/RTS	NO
Parity	no
Bits	8
Stop bits	1
ReadIntervalTimeout	4000

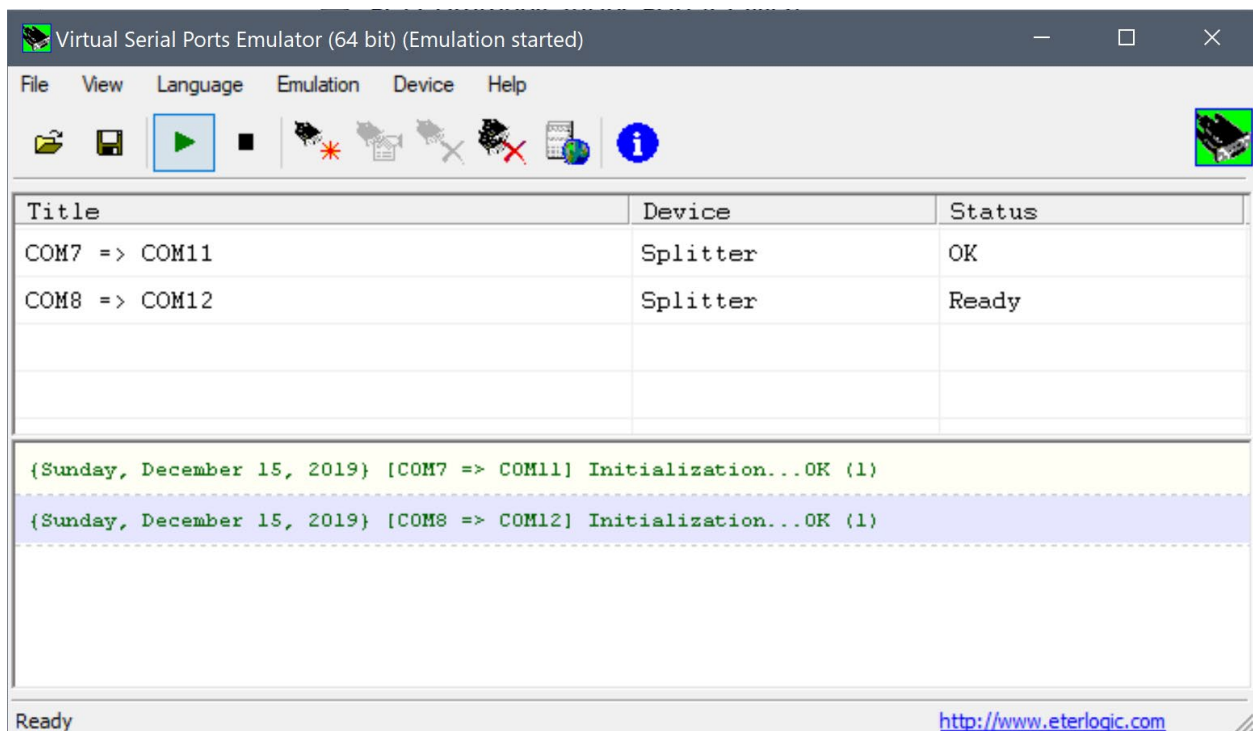
At the bottom of the dialog are two buttons: "OK" and "Cancel".

The Speed, DTR/RTS, Parity, Bits, and Stop bits have drop-down menus. Make sure they are as shown above. The default “ReadIntervalTimeout” may state -1 (which seems ridiculous...negative time?). Replace that with 4000 as shown. I’m assuming this is in milliseconds...so, 4 seconds for timeout. This is the only field that might allow some tinkering. Feel free to experiment. 4000 works for me.

When finished with the above, click the OK button to return here:



Then click the Finish button to set the parameters and return to the main screen as below:



Hopefully, this screen will indicate Status as OK or Ready and that the lower half indicates successful initialization (in green). Any errors will be indicated in red.

Before leaving this screen, and being satisfied with the results, make sure to save the file (in the location of your choice...maybe in documents?) and name it as appropriate to your preference. The extension .vspe will be automatically appended to the file name you choose.

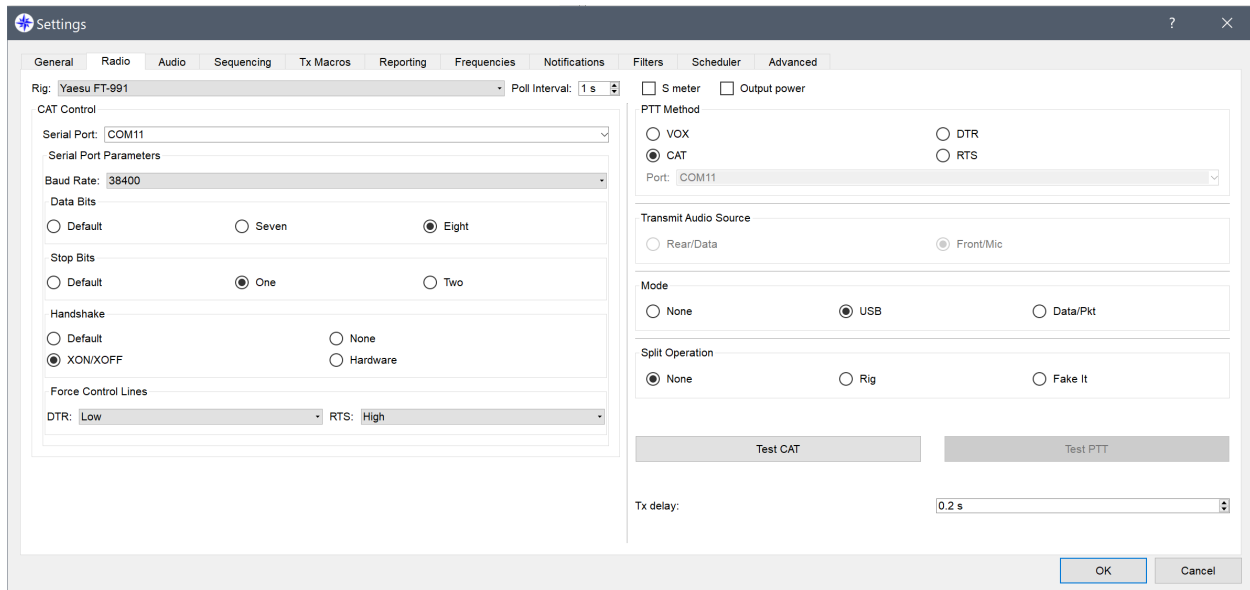
Minimizing the above screen will send it to the hidden icons box on the Windows taskbar.

VSPE does not become a perpetual background process. It will need to be manually started before running any of the apps that require it. Or, you can include it in the Windows startup file to open whenever the computer is started/booted.

Hope your eyes haven't glazed at this point. 🙄 Apps configuration coming up next. 😞

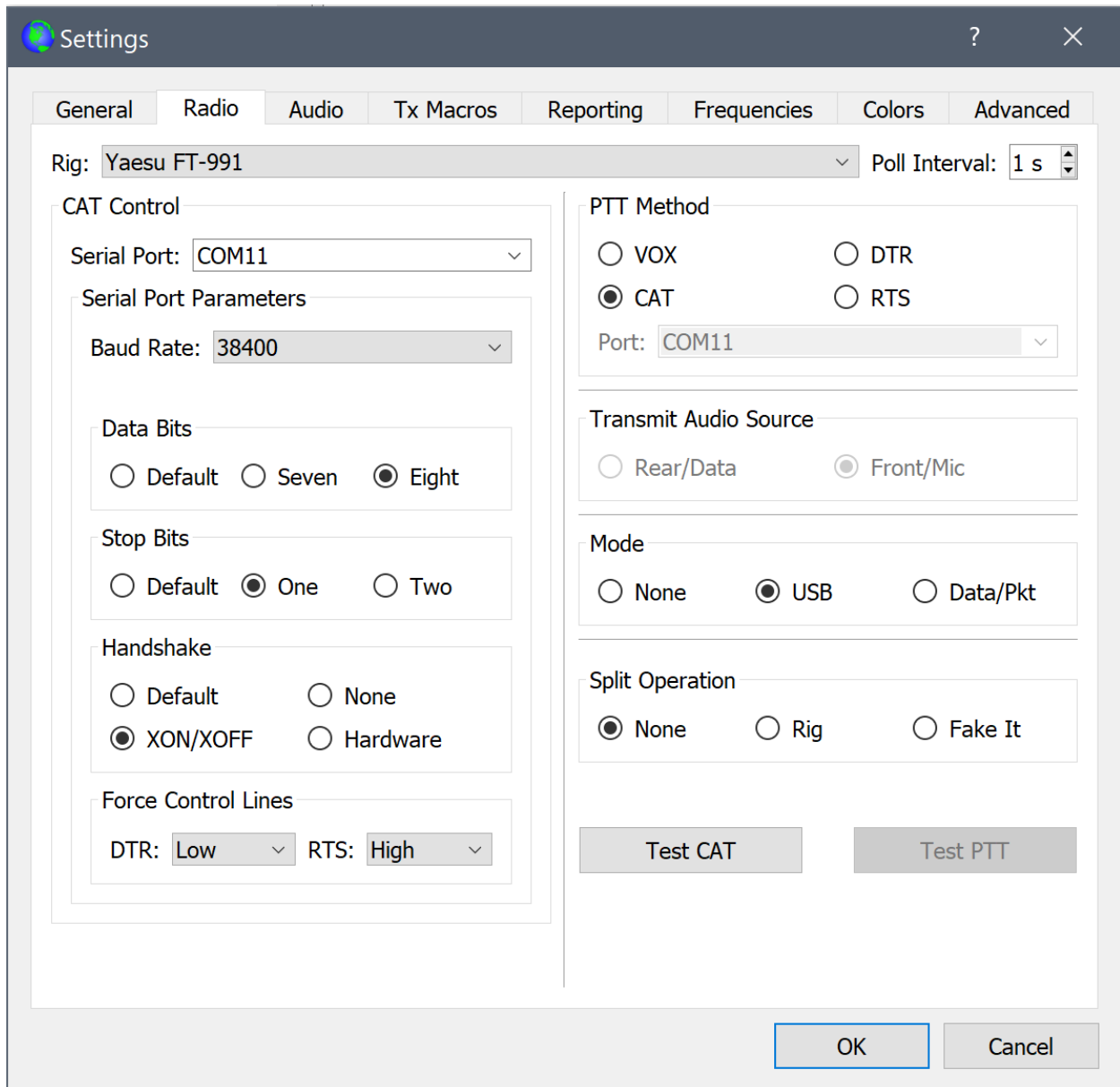
Here we go. The setup for JTDX and WSJT-X are very similar. After starting either, select File > Settings at the top left of the main page and then Radio from the resulting sub menu.

For JTDX:



At the time of my installation, there was no Rig choice for the FTDX101. The FT-991 selection seems to work fine. Set the Cat Control Serial Port to the virtual port created with VSPE. The PTT port can be set to the same virtual port as the CAT port. All the other settings are selected as shown.

For WSJT-X:



Same settings apply as for JTDX.

Keep in mind that these are the settings that work for me. Some variation may work as well.

Done...hope that wasn't so bad. 😊

Now for Commander. After starting Commander, select the Config button at the bottom of the main page. Select the Ports tab from the resulting sub menu and configure the Primary CAT Serial Port as shown (again using the virtual serial port set up with VSPE). I set up the Secondary CAT Serial Port using the Yaesu Standard port I set up with VSPE. You will notice that I have not enabled it and it is likely that it would not function if enabled. The Secondary CAT Serial Port is not necessary to work with JTDX or WSJT-X.

Commander Configuration

Filter Groups | Memories | MultiRadio | Bandspread | Transverters

General | **Ports** | Device 0 | Device 1 | Device 2 | Device 3

Primary CAT Serial Port

Port# 11 | Baud 38400 | Word 8 | Parity None | Stop 1 | DTR Off | RTS On

Secondary CAT Serial Port

Enable Follow primary Lead primary Follow & lead primary

CAT protocol FT-991 Update every 200 ms Follow Alternate VFD when Split

Port# 12 | Baud 38400 | Word 8 | Parity None | Stop 1 | DTR Off | RTS On

SO2R Serial Port

Enable

SO2R protocol

Aux Enable Device Control

Port# | Baud 9600 | Word 8 | Parity None | Stop 2 | DTR Off | RTS Off

Parallel Port

Enable Radio & PTT

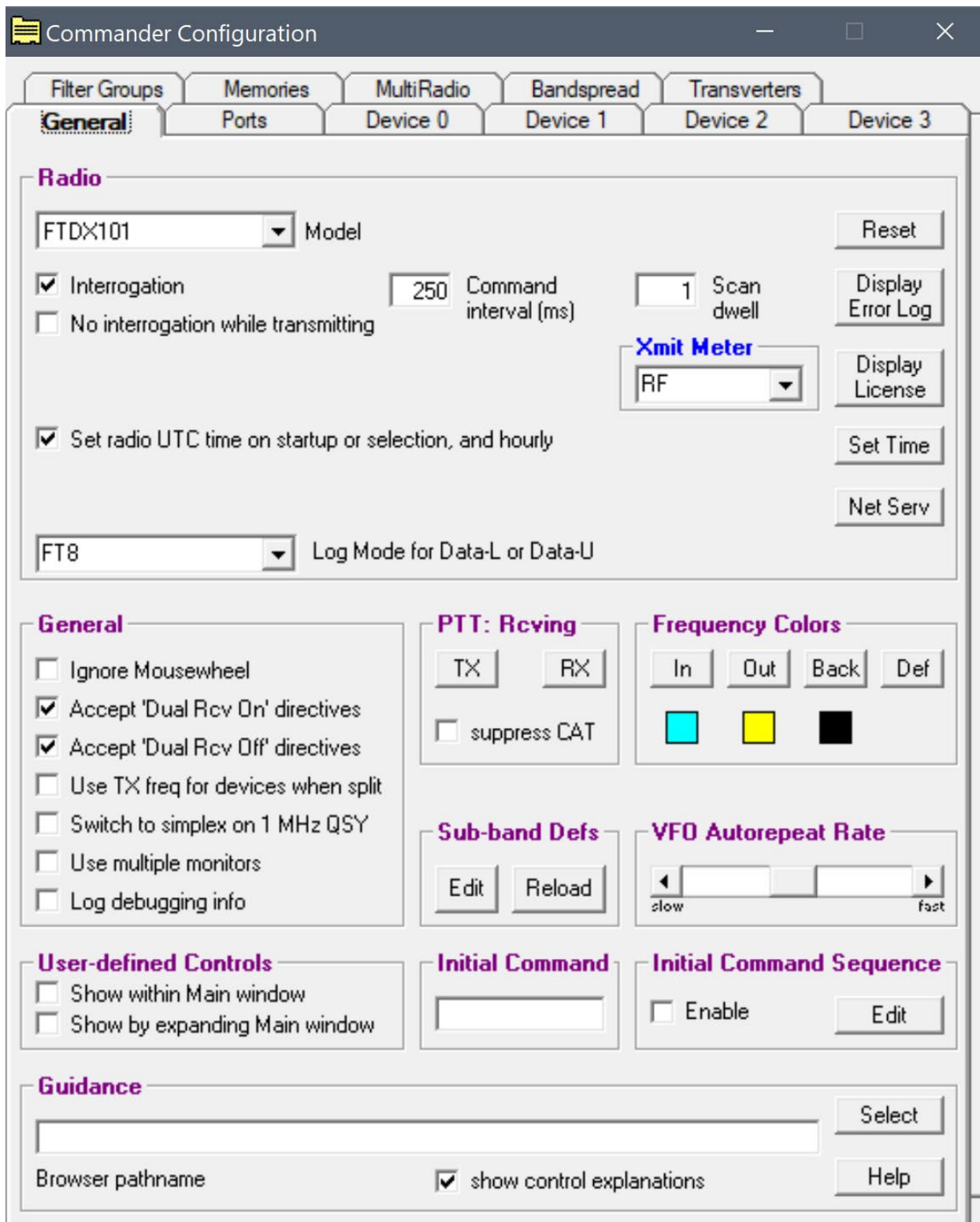
Port | Port Address 0000

Data Signals Enable Device Control

Modem Command Send

Scomm version: 9.1.12

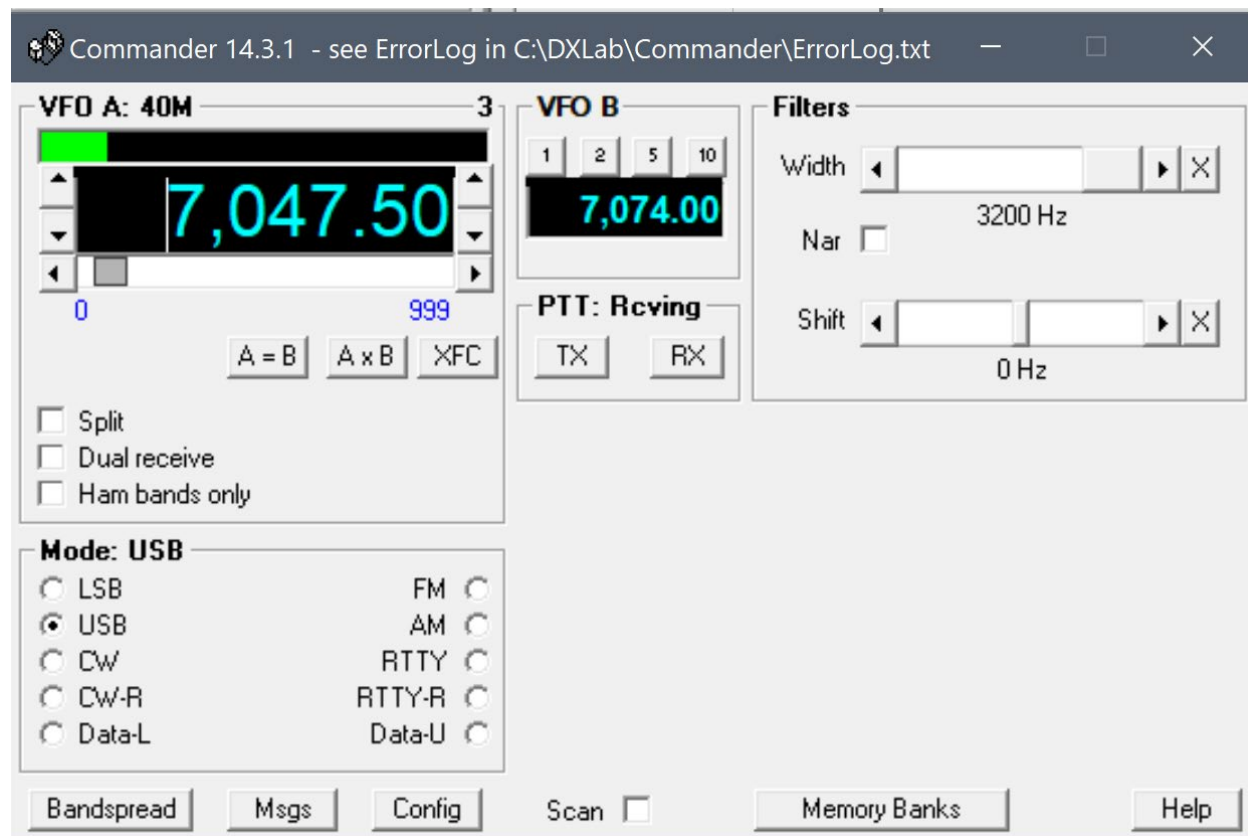
Last step in Commander setup. From the Config menu select the General tab.



Select FTDX101 from the Model drop-down menu.

****IMPORTANT**** I had to change the Command interval (ms) to 250 or higher. As I recall the default setting was 200 ms. The default setting resulted in command conflicts with both JTDX and WSJT-X. Of course, do tinker with this setting to obtain the optimal performance with your setup.

Main Commander page:



I am not familiar at all with the Commander app. The VFOs, S-Meter, Filter Width, PTT and Mode settings appeared to work fine. Those who are familiar with Commander should test for full functionality.

The Bandsread function displayed the correct frequency but I did not test with CW or RTTY modes.

OK...the end is near. 😊

Now for the “word” regarding Omni-Rig. I installed it and it seems to be a fine utility for configuring the com ports on apps that support it. It is not in the Rig choice for Commander. JTDX and WSJT-X both support it as Rig choices. The problem is that the .ini for the FTDX101 does not seem ready for prime time as of yet. The choice of FT-991 appeared to work OK for the FTDX101. Except, for my setup, the initial setting on the FTDX101 VFO jumped 55Hz higher when JTDX and WSJT-X were started (7.047.500 became 7.047.555). This may be particular to my setup...just saying.

Disclaimer...currently I am only operational on 40 meters. This is the only band on which the apps covered here were tested. However, I have no reason to believe that operations on other bands will be less than satisfactory.

As a final (unrelated) note, I use [Voice Meter Potato \(Banana\)](#), I'm sure would also be satisfactory as well) and [Virtual Audio Cables](#) to route audio from my soundcard back to the FTDX101MP. This allows me to listen to streaming news and music on my PC speakers while operating digi-modes.

Special thanks to Mark VK4TMZ for posting his experience with VSPE.

Hope this document is of value to someone.

Roy

K9ER