How to Configure the Yaesu FTDX101D for WSJT-X and JS8 Operation $$_{\rm By\,Greg\,VK4GRM}$$

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Introduction

This document captures the configuration that I have used to get operational on FT8 via the WSJTX package using the Yaesu FTDX101D. This document contains information from the FTDX101D Manuals and also information from the Groups.io FTDX101D Forum, the members of which have kindly helped me to get operational.

This document will be uploaded to the Files section of the Groups.io FTDX101D Forum so that others may use the information to also get operational. It also captures my configuration so that I may recreate it at a later date should this be needed.

Note from what I have read the following is also probably suitable for the FTDX101MP but it has not been tested as I only have the FTDX101D.

NOTE in this document the key steps have been identified with a **STEP #** number. These are the important steps and must be followed.

NOTE: I reiterate that this is the configuration that I have used to get operational. You will need to make appropriate changes as apply to your PC and these are identified in the document.

Hardware Configuration

STEP 1: The first step is to connect a USB-A to USB-B cable between the FTDX101D and your PC or laptop. Note: I am using a Surface Pro 4 running Windows 10. In my case I connect the USB cable to my Docking Station for the Surface Pro 4.

PC Configuration

Computer Aided Transceiver

From the CAT (Computer Aided Transceiver) Operation Manual:

The CAT System in the FTDX101D transceiver provides control of frequency, VFO, memory and other settings such as dual-channel memories and diversity reception using an external personal computer. This allow multiple control operations to be fully automated with single mouse clicks or keystroke operations on the computer keyboard.

The FTDX101D transceiver has a built in USB to Dual UART Bridge, allowing direct connection from the rear-panel USB jack to the USB jack of a computer without the need for an interface device, simply use the USB cable referenced above for the connection.

Virtual COM Port Driver

To connect to a PC using a USB cable, a Virtual COM port driver must be installed on the PC. Visit the Yaesu website to download the drivers:

https://www.yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=102&encProdID=959169DE 998192AB87295E90077D740D&DivisionID=65&isArchived=0

The top of this web page is shown in Figure 1 below.



Figure 1 Yaesu Website for FTDX101D

Go to the bottom of this webpage for the Virtual COM Port Driver as shown in a red box in Figure 2:

G wsjt-x with FTC X 🛛 FT8 FTdx101M X 🔄 EASWO - Post: X 🔤 Yaesu FTdx101 X G wsjt-x with 2 m X 🚱 Two Instances X 💿 New Tab X 🚱 Welcome to Yin X + 🧧 🗖	×
🗧 🔶 😋 🌘 yaesu.com/indexVS.cfm?cmd=DisplayProducts&ProdCatID=102&encProdID=959169DE998192AB87295E90077D740D&DivisionID=65&isArchived=0 📩 🖈 🕲 🖿 🛛 🧐	:
For quick access, place your bookmarks here on the bookmarks bar. Import bookmarks now	
FTDX101D Left 3DSS Product Image (3.23 MB)	
FTDX101 Series Standard Accessories & Options (96.87 KB)	
FTDX101 Deutsch Catalog (26.43 MB)	
FTDX101 French Catalog (26.40 MB)	
FTDX101 Italian Catalog (25.88 MB)	
FTDX101 Seanish Catalog (26.99 MB)	
FTDX101 Series Catalog (24.50 MB)	
Amateur Radio \ Manuals \ HF/Satellite Transceivers and Amps	
Network Remote Control System SCU-LANIO Installation Manual (2004-A) (3.27 MB)	
Network Remote Control System SCU-LANIO Operation Manual (2004-A) (7.54 MB)	
FTDX101MP/D CAT Operation Reference Book (2003-F) (874.13 KB)	
FTDX101MP/FTDX101D_Operation_Manual_(2003m-GS-1) (23.64 MB)	
FTDX101MP/FTDX101D Firmware Upgrade Manual (1.37 MB)	- 11
FTDX101 Updated Function Operation Manual (355.29 KB)	
M-1 Reference Microphone Operation Manual (2.90 MB)	
M-100 Dual-Element Microphone Operation Manual (1.53 MB)	
FTDX101D/FTDX101MP French Operation Manual (20.62 MB)	
FTDX101D Operation Manual Erratum (93.51 KB)	
FTDX101D Warranty Update Offer (87.63 KB)	
ETDX101D/MP Using [MULT] Knob to adjust 2DSS Level Information (19054-A) (872-16 KB)	
Amateur Radio \ Software	
FTDX101 Firmware Update Information (4/29/20) (82.74 KB)	
FTDX101 Firmware Update 202004 (5.00 MB)	
Network Remote Control System SCU-LANIO Software V0100 (24.81 MB)	
FTDX101D/MP_SCU-17 USB Driver Installation Manual (1909-C) (594.19 KB)	
FTDX101D Important Changes 06/26/19 (371.01 KB)	
FTDX101D/MP USB Driver (Virtual COM Port Driver) (3.51 MB)	
COPYRIGHT(©2003-2020 Yaesu USA.	

Figure 2 Virtual COM Port Driver Software

The download is a zip file which you will need to save to a suitable directory and then unzip the file. I usually do this in the same directory as shown in Figure 3

← → × ↑ 🏂 >	This PC >	Documents > FTDX101D >			~ 6	Search FTDX101D	, P
	^	Name	Date modified	Туре	Size		
Quick access Desktop		CP210x_Windows_Drivers	24/04/2020 5:49 PM	File folder			
Downloads	*	CP210x_Windows_Drivers	24/04/2020 5:47 PM	WinZip File	3,767 KB		
Documents	*						

Figure 3 Virtual COM Port Software

STEP 2: The CP210x_Windows_Drivers directory contains the files shown in Figure 4. Double click on the application applicable for your PC and follow any instructions required to complete the installation. In my case that was the CP210xVCPInstaller_x64.exe application as applies to the 64 bit operating system on the Surface Pro 4.

-> -> 🛧 🚺 > TI	his PC > D	locuments > FTDX101D > CP210x_Windows_Drivers	k:			✓ ♂ Search CP210x_Windows_Drivers ₽
	^	Name	Date modified	Туре	Size	
Quick access		10 m				
Desktop	*	×64	4/05/2016 10:42 PM	File folder		
		🔎 x86	4/05/2016 10:42 PM	File folder		
Downloads		CP210xVCPInstaller_x64	29/03/2016 12:38 AM	Application	1,034 KB	
Documents	1	CP210xVCPInstaller_x86	29/03/2016 12:38 AM	Application	911 KB	
Pictures		dpinst	29/03/2016 12:32 AM	XML Document	12 KB	
FTDX101D Setup		SLAB_License_Agreement_VCP_Windows	29/03/2016 12:32 AM	Text Document	9 KB	
G59 No Power Faul	t Plots	slabvcp	3/05/2016 1:59 AM	Security Catalogue	11 KB	
GSDR		slabvcp	3/05/2016 1:53 AM	Setup Information	12 KB	
TESTING						

Figure 4 Virtual COM Port Driver application

STEP 3: The next step is to verify that the Virtual COM Port Driver has been installed successfully:

- 1. Press and hold the ON/OFF switch to turn the transceiver ON.
- 2. You have already connected the transceiver to the PC via the USB cable
- 3. Open the Device Manager screen in Windows:
 - a. Type in Device Manager on the Windows Search Engine and an image similar to that in Figure 5 will appear. It will be different for different version of Windows.
- 4. On the Device Manager screen, double click on "Ports (COM & LPT)"
- 5. The Screen shown in Figure 6 will appear.

All Apps Documents Web More 🔻	چ ···
Best match	
Control panel	20
Search the web	Device Manager
Device Manager - See web results >	Control panel
	☐ Open
	o e 💼 🧰 🧰 💼

Figure 5 Device Manager



Figure 6 Ports (COM & LPT)

- 6. The two Silicon Labs Dual CP2105 USB to UART Bridge port numbers need to be written down or remembered as you will need them for the WSJT-X configuration.
- 7. NOTE: they may be different on your PC depending on what other ports are in use etc.
- 8. Note in my case:
 - a. COM3 is the Enhanced Port for my radio, and
 - b. COM4 is the Standard Port for my radio
- 9. The FTDX101D contains two virtual COM Ports which have different functions:
 - a. The Enhanced COM Port: CAT Communications (Frequency and Communication Mode Settings)
 - b. The Standard COM Port: TX Controls (PTT control, CW Keying, Digital Mode Operations

USB Audio CODEC

STEP 4: The next step is to setup the USB Audio CODEC so that WSJT-X can listen to the received signal from the FTDX101D and also provide a data signal for transmission.

- 1. Select Device Manager again as shown in Figure 5
- 2. Select "Audio inputs and outputs" and the screen shown in Figure 7 will appear.
- 3. NOTE: that when you first do this that probably only see 6- USB AUDIO CODEC or something similar. Again the number may be different depending on how many Virtual Audio cables you have configured on your PC.
- 4. NOTE: that this number appears twice, once for the Line Input and once for the Speaker Output. Both are highlighted with a red rectangle in Figure 7.
- 5. NOTE also that if you change the USB port that you connect the FTDX101D to your PC to that the number in front of the "USB AUDIO CODEC" will change as well. When I am connected directly to the Surface Pro 4 the number is 5, when connected to the docking station the number is 6.
- 6. Record the current name of the AUDIO CODEC. In my case 6- USB AUDIO CODEC

- Device Manager -	×
<u>F</u> ile <u>A</u> ction <u>V</u> iew <u>H</u> elp	
DESKTOP-LCNDML4 Audio inputs and outputs	^
Headphones (Xonar 117)	
Line (Xonar U7)	
Line 1 (Virtual Audio Cable)	
😅 Line 1 (Virtual Audio Cable)	
😅 Line 2 (Virtual Audio Cable)	
📁 Line 2 (Virtual Audio Cable)	
😅 Line 3 (Virtual Audio Cable)	
😅 Line 3 (Virtual Audio Cable)	
😅 Line 4 (Virtual Audio Cable)	
😅 Line 4 (Virtual Audio Cable)	
🚽 Microphone (Xonar U7)	
🕿 Microphone Array (Realtek High Definition Audio(SST))	
🚍 SPDIF Out (Xonar U7)	
Speakers (6- USB AUDIO CODEC)	
Speakers (Realtek High Definition Audio(SST))	
> 🔐 Batteries	
> M Biometric devices	
> 8 Bluetooth	
Sector Cameras	
> 🔄 Computer	
Insk drives	
	~

Figure 7 Device Manager > Audio Inputs and Outputs

- 7. If you want to change the name right mouse click on your Speaker Icon on the bottom left of the screen and select "Open Sound Settings". This will give you Figure 8.
- 8. Double clicking on "Sound Control Panel" (highlighted with a red rectangle) will allow you to access the Sound Setup as shown in Figure 9

Settings		- 0 ×
6 Home	Sound	
Find a setting ρ	Output	Related Settings Bluetooth and other devices
System	Choose your output device	Sound Control Panel
Display	Speakers (6- USB AUDIO CODEC) V	Microphone privacy settings
4 ³) Sound	Certain apps may be set up to use different sound devices than the one selected here. Customise app volumes and devices in advanced sound options.	Ease of Access audio settings
Notifications & actions	Device properties	Do you have a question?
	Master volume dis) 100	Setting up a microphone Fixing sound problems
O Power & sleep	▲ Troubleshoot	
Battery	Manage sound devices	Get help
□ Storage		Give feedback
명 Tablet mode	Input	
首 Multi-tasking	Choose your input device Line (6- USB AUDIO CODEC)	
Projecting to this PC	Certain apps may be set up to use different sound devices than the	
X Shared experiences	one selected here. Customise app volumes and devices in advanced sound options.	
🛱 Clipboard	Device properties	
> Remote Desktop		
① About	∆ Troubleshoot	

Figure 8 Open Sound Settings



Figure 9 Sound Setup

- 9. Right click on the 6- USB AUDIO CODEC and Select Properties
- 10. In the "General Tab" the Label will be "Speakers" as shown in the left hand image of Figure 10.
- 11. The name may be changed from Speakers to FTDX101D in the top entry in the window as shown in the right hand image of Figure 10.

Speakers Properties	X TDX101D Properties X
General Levels Enhancements Advanced Spatial sound	General Levels Enhancements Advanced Spatial sound
Speakers Change Icon	Change Icon
Controller Information	Controller Information
6- USB AUDIO CODEC Properties	6- USB AUDIO CODEC Properties
(Generic USB Audio)	(Generic USB Audio)
Jack Information No Jack Information Available	Jack Information No Jack Information Available
Device usage: Use this device (enable)	Device usage: Use this device (enable)
OK Cancel Apply	OK Cancel Apply

Figure 10 Name Change USB AUDIO CODEC in General

12. Select the Recording Tab and repeat the process to change the name for the Line device shown in Figure 11. This makes sure that the correct USB AUDIO CODEC is selected for the FTDX101D when you complete the setup later in the process.

Sound X	→ Line Properties ×
Playback Recording Sounds Communications	General Listen Levels Advanced
Select a recording device below to modify its settings:	FTDX101D Change Icon
	Controller Information 6- USB AUDIO CODEC Properties
Microphone Array Realtek High Definition Audio(SST) Ready	(Generic USB Audio)
Mic 1 Virtual Audio Cable Currently unavailable	Jack Information
Mic 2 Virtual Audio Cable Currently unavailable	No Jack Information Available
Mic 3 Virtual Audio Cable Currently unavailable	
<u>C</u> onfigure <u>Set Default</u> ▼ <u>Properties</u>	Device usage: Use this device (enable)
OK Cancel Apply	OK Cancel Apply

Figure 11 Name Change USB AUDIO CODEC in Recording

- 13. Under FILES>SETTINGS>AUDIO you can now set the Input and Output up to select the FTDX101D USB AUDIO CODEC as shown in Figure 24.
- 14. This completes the FTDX101D to PC set up for your rig.

FTDX101D Configuration

Transceiver Configuration

STEP 5: The FTDX101D should be configured as follows:

- 1. Select MAIN. Note that I have configured my radio to use the Main Receiver for WSJT-X and JS8 but I have also noted that selecting the SUB band in the FTDX101D still allows complete control from WSJT-X.
- 2. Set Mode to DATA-U. These settings are shown on Figure 12.

THE PARTY	the second se	
	PO METER S 1 3 5 7 9 -20 -40 dB 10 -50 100 150 I 13.8 V 100	
	20 40 5 10 15 20 40 00 00 100 c	
		SYNC SPLIT
	1 18dB AMP1 3kHz AUTO 2 OFF AMP1 3kHz AUTO MAIN CENTER FAST1 SPAN 200kHz	
	-40x -40x 7.674.000 +40x 400x CENTER SPAN 30SS MONO MULTI EXPAND HOLD MULTI REPOWER	
5		
Di		
1		
17		

Figure 12 FTDX101D Setup

OPERATION SETTINGS STEP 6: Select OPERATION SETTINGS

1. Press FUNC (Figure 13) then OPERATION SETTING>GENERAL to get Figure 14.

A REAL PROPERTY	VAESII		
ON/OFF	IALSO		
	S , <u>3</u> , <u>7</u> , <u>9</u> , <u>40</u> , <u>48</u> S , <u>3</u> , <u>7</u> , <u>9</u> , <u>40</u> , <u>48</u> S , <u>3</u> , <u>7</u> , <u>9</u> , <u>40</u> , <u>40</u> S , <u>3</u> , <u>7</u> , <u>9</u> , <u>40</u> , <u>40</u> S , <u>3</u> , <u>7</u> , <u>9</u> , <u>40</u> , <u>40</u> S , <u>10</u> , <u>15</u> , <u>20</u> , <u>150</u> R , <u>10, <u>15</u>, <u>20</u>, <u>25</u>, <u>10</u>, <u>15</u>, <u>10</u>, <u>15</u>, <u>20</u>, <u>25</u>, <u>10</u>, <u>15</u>, <u>20</u>, <u>25</u>, <u>10</u>, <u>15</u>, <u>20</u>, <u>25</u>, <u>10</u>, <u>15</u>, <u>20</u>, <u>25</u>, <u>10</u>, <u>15</u>, <u>10</u>, <u>15</u>, <u>20</u>, <u>25</u>, <u>10</u>, <u>15</u>, <u>10</u>, <u>10</u></u>	18, 35,	5.
مرج	TEMP 20 49 50 80 100 c	MODE	
	DATA-U 7.078.000 DATA-U 7.074.000	SSB CLAR	
	SPEED PEAK MARKER COLOR LEVEL		Kanage CON
≟KEY	THE POWER NON LEVEL DURLEVEL NOLEVEL WORKCAIN VORDELAY ANTI VOR STEP DIAL	and a shrink	
0			
		BK-IN	
0	67.0 REC/FLAY QUBLIST SETTING SETTING SETTING SETTING	MONI	
DMIC	CENTER SPAN 3DSS MONO MULTI EXPAND HOLD MULTI	MAIN AF - RF/SO	21
	TUNE VOX MOX ZIN/SPOT DISP SIMENU FUNC	PUSH ON	
SP			
P			

Figure 13 FTDX101D>FUNC

	OPERATION	SETTING	
	DECODE RX SELECT		_ ^
RX DSP		SUE	
TX AUDIO	HEADPHONE MIX	SEPARATE	
TX GENERAL	ANT3 SELECT		
TUNING			
	NB WIDTH	1msec Grande 10msec	
	NB REJECTION	10dB 3000 40dB	7
	BEEP LEVEL		
		10	
BACK	RF/SOL VR	SOL	

Figure 14 FUNC>OPERATION SETTING>GENERAL 1

- 2. Step down through the options by pressing the down arrow (highlighted with a red circle) until you get to CAT RATE. Press the current value and set it to 384000bps as shown highlighted in the red rectangle in Figure 15. Note other instructions have said to also set the 232C RATE to the same value but I don't believe that will make any difference to the correct operation of the USB port.
- 3. Set CAT RTS to ON as shown highlighted in the orange square.
- 4. NOTE other values are all left at their default values
- 5. I have included Figure 16 and Figure 17 for consistency to show what the settings are for the rest of the GENERAL tab.
- 6. Press the FUNC key again to exit from the OPETATION SETTING menu.

	GEN		
AX DSP	RF/SOL VR	SOL	
TX AUDIO	TUNER SELECT	INT	
TX GENERAL	232C RATE	38400bps	-
TUNING	232C TIME OUT TIMER	10msec	
	CAT RATE	38400bps	-
	CAT TIME OUT TIMER	10msec	
BACK	CAT RTS	OFF CHARACTER	~

Figure 15 FUNC>OPERATION SETTING>GENERAL 2>SET CAT RATE to 38400bps and CAT RTS to ON

	GI ICAT RTS	
	OMB CH	10ch
TX GENERAL	MEN GROUP	
TUNING	QUICK SPLIT INPUT	ON
	QUICK SPLIT FREQ	SkHz
	TX TIME OUT TIMER	
BACK		

Figure 16 FUNC>OPERATION SETTING>GENERAL 3

	QUICK SPLIT FREQ	SkHz	<u> </u>
RX DSP	TX TIME OUT TIMER		
TX GENERAL	MIC SCAN		
TUNING	MIC SCAN RESUME		
	REF FREQ FINE ADJ		
	CS DI AL		
BACK	KEYBOARD LANGUAGE	ENGL ISH(US)	
DAVA			

Figure 17 FUNC>OPERATION SETTING>GENERAL 4

RADIO SETTING STEP 7: Select RADIO SETTINGS

- 1. Press the RADIO SETTING button shown in Figure 18.
- 2. Select MODE PSK/DATA shown highlighted in a red rectangle.

1		7.0	78		ID SWR	1.5 2 3 5	25 _A		. — Mo
	SPEED	PEAK	MARKER	COLOR	LEVEL	/.L	174.1	JUD	
	REPOWER		DNRLEVEL	NBLEVEL	+5. OdB VOX GAIN	VOX DELAY	ANTI VOX		
	МЕМСН	GROUP	R.FIL	SCAN	DECODE	SOOMS	50 MIC EQ	STEP DIAL	
	TONE FREQ	REC/PLAY		RADIO	CW	SIMP	OFF	OFF	
	CENTER	SPAN	3DSS	MONO	SETTING	SETTING	SETTING	SETTING	
	TUNE	(vov				EAFAIND	HOLD	RFPOWER	

Figure 18 FUNC>RADIO SETTING

NODE SOR	MO	DE PSK/DATA
MODE AM	AGC FAST DELAY	160msec
MODE FM	AGC MID DELAY	500msec
	AGC SLOW DELAY	1500msec
MODE RTTY ENCDEC PSK	PSK TONE	1500Hz 2000Hz
ENCDEC RTTY	DATA SHIFT (SSB)	1500Hz
		300Hz
BACK	LCUT SLOPE	6dB/oct

Figure 19 FUNC>RADIO SETTING 1

3. Again use the down arrow key to step down to DATA OUT SELECT and select MAIN as shown in Figure 20.

DE AM LCUT SLOPE 6dB/oct Contraction DE FM HCUT FREQ 3000Hz DE RTTY HCUT SLOPE 6dB/oct DE RTTY DATA OUT SELECT MATHY SUB	ODE SSB	MO	DE PSK/DATA
DE FM HCUT FREQ SOCOHz HCUT SLOPE GdB/oct DATA OUT SELECT	ODE AM	LCUT SLOPE	6dB/oct
DE RTTY DATA OUT SELECT DEC PSK DATA OUT SELECT	ODE FM	HCUT FREQ	3000Hz
DERTTY DATA OUT SELECT SUB		HCUT SLOPE	6dB/oct
	ODE RTTY	DATA OUT SELECT	
DATA OUT I EVEL	ENCDEC PSK		
SDEC RTTY DATA OUT LEVEL 50	ENCDEC RTTY	DATA OUT LEVEL	50
TX BPF SEL 50-3050Hz		TX BPF SEL	50-3050Hz
DATA MOD SOURCE		DATA MOD SOURCE	MIC

Figure 20 FUNC>RADIO SETTING 2

	RADTO SET	DE PSK/DATA
MODE SSB	DATA OUT SELECT	SUB
MODE AM MODE FM	DATA OUT LEVEL	50
	TX BPF SEL	50-3050Hz
MODE RTTY	DATA MOD SOURCE	
ENCDEC RTTY	REAR SELECT	DATA
	RPORT GAIN	50
	RPTT SELECT	DAKY RIS DTR
BACK		

Figure 21 FUNC>RADIO SETTING 3

- 4. Use the down arrow key to step down to DATA MOD SOURCE and select REAR.
- 5. Use the down arrow key to step down to REAR SELECT and select USB as shown in Figure 21.

- 6. Use the down arrow key to step down to RPTT SELECT and select RTS
- You may need also to set RPORT GAIN. I am currently not sure how this needs to be set. I have left it at DEFAULT setting.
- 8. Press FUNC twice to return to normal operation of the transceiver.

WSJT-X Configuration

If you have not already done so install WSJT-X from the following site:

https://physics.princeton.edu/pulsar/K1JT/wsjtx.html

STEP 8: In WSJT-X (v2.1.2 0068f9) configure the settings as follows:

- 1. Go to File>Settings>General and you will get Figure 22
- 2. Configure the My Call: with your callsign
- 3. Configure My Grid: with your Maidenhead Grid Locator
- 4. Configure the IARU Region: with your region.

General Radio Audio Tx Macros Reporting Frequencies Colours Advanced	
My Call: Your Call Sign My Grid: Your Maiden Head Locator Message generation for type 2 compound callsign holders: Full call in Tx3	AutoGrid IARU Region: Region 3 V
Display Start new period decodes at top Blank line between decoding periods Display distance in miles Lx messages to Rx frequency window Show DXCC, grid, and worked-before status Show principal prefix instead of country name	Font Decoded Text Font
Behavior Behavior Monitor off at startup Enable VHF/UHF/Microwave 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 Decode after EME delay	
Alternate F1-F6 bindings CW ID after 73	Tx watchdog: 6 minutes
	OK Cancel

Figure 22 File>Settings>General

- 5. Select the Radio tab and configure the settings as shown in Figure 23.
- 6. NOTE PLEASE USE YOUR OWN ENHANCED AND STANDARD COM PORT NUMBERS:
 - a. Enhanced COM Port number for CAT Control. NOTE COM 3 in my case.
 - b. Standard COM PORT number for PPT Method. Note COM 4 in my case.

g: Yaesu FT-DX101D			V Poll Interval: 1 s
CAT Control	PTT Method		
Serial Port: COM3		0	DTR
Serial Port Parameters	O c <u>a</u> t	\odot	R <u>T</u> S
Baud Rate: 38400 V	Port: COM4		× _
	Transmit Audio Source		
Data Bits Dgfault Seyen Eight	Rear/Data	۲	<u>E</u> ront/Mic
Stop Bits	Mode		
○ Default ○ Ong ○ T <u>w</u> o	None None		O Data/Pkt
Handshake			
O Default O None	Split Operation	\sim	\sim
XON/XOFF	None None	Rig	G Fake It
Force Control Lines			
DTR: V RTS: V	Test CA	т	Test PTT

Figure 23 File>Settings>Radio

- 7. NOTE: I have found that CAT control works for either One or Two Stop Bits provided that the Handshake is set to Hardware. If Handshake is set to None then neither work.
- 8. Select the AUDIO tab as shown in Figure 24 and set the Input and Output to the values you determined in STEP 4 above.
- 9. In my case these were 6 USB AUDIO CODEC.
- 10. Click OK to accept the changes and you should now be operational on all the modes in WSJT-X.

-		?
eneral	Radio Audio Tx Macros Reporting Frequencies Colours Advanced	
Soundcard		
Input:		
Ou <u>t</u> put:	FIDX101D (6- USB AUDIO CODEC)	✓ Both ✓
Save Direc	ory	
Location		Select
Location	e./ Jour a gine na/ pipoto electi non a joure	<u>Se</u> lect
AzEl Direct	ory	
Location:	C:/Users/gmew5/AppData/Local/WSJT-X	Select
Remembe	power settings by band	
✓ Tr	nsmit 🗸 Tune	

Figure 24 FILES>SETTINGS>AUDIO

JS8 Configuration

If you are interested in JS8 then download the software from the following link and install it on your PC:

http://js8call.com/

The following quote is taken from the site to provide a very quick overview of JS8:

"The idea with JS8Call is to take the robustness of FT8 mode and layer on a messaging and network protocol for weak signal *communication* on HF with a keyboard-to-keyboard interface. JS8Call is heavily inspired by <u>WSJT-X</u>, <u>Fldigi</u>, and <u>FSQCall</u> and would not exist without the hard work and dedication of the many developers in the amateur radio community."

The set up of JS8 is essentially the same as WSJT-X as shown below:

STEP 9: After installing JS8 you should have a window on your PC looking like Figure 25.

- 1. Select FILE>SETTINGS>GENERAL>STATION and complete your Station details and Maidenhead Grid Locator
- 2. Select the Radio Tab
- 3. Select the "CAT Control" Tab and set as shown in Figure 26. NOTE: Use the Enhanced COM Port number that is applicable for your FTDX101D as saved earlier.
- 4. Select the "Rig Options" Tab and set as shown in Figure 27.

JS8Call de KN4CRD (N Die Configurations Mode Log yew Conti	(v2.1.1) mai Heb			– 0 ×
2102 Hz		VK4GRM 10:35:10 2020 May 03	RX SPOT	TX NORMAL+HULTI
Offset Age SNR Time Delta Speed	Message(s)	09:51:29 - (2107) - W/HDY: WCH2M ADX -16 0	Callsigns (4) Age SNR Offset Grid 🖌 Name	Comment
		10:01:43 - (2107) - W457: HB AUTO RELAY SPOT QG62 0 10:08:28 - (2107) - W457: 333Ex ACK -10 0	4F18YN 6m -18 dB 2047 Hz PK04 2	NO return signal
		10: 18:43 - (2106) - WHEY: HE AUTO RELAY SPOT QG62 0 10:28:58 - (2107) - WHEY: HE AUTO RELAY SPOT QG62 0	3318.X 3m -18 dB 2444 Hz PM95	
			K144TV 29m -18 dB 2050 Hz	
			W46Y 6m -09 dB 2107 Hz QG62	
		THE YOUR OUTGOING MESSAGES HERE.		
CQ 1()(INFO Saved Directed	Desetct Serd	Hait
CAT TU 10:35:00 40n 10:34:45 40n 10:34:50 40n 10:34:00 40n	n m m	500, 1800, 2000, 2200, 240	u <u>2000 2000 30</u>	Correst Corres

Figure 25 JS8 Main Screen

Settings					? ×
General <u>R</u> adio	Audio	Reporting	Erequencies	Saved <u>M</u> essages	Notifications
Rig: Yaesu FT-DX 10 1D	Image: Series and descent to a serie de				
CAT Control	Rig Options				
Serial Port: CON	43				\sim
Parameters					
Baud Rate: 384	00				-
Data Bits					
Dgfault		O Se <u>v</u> en		Eight	
Stop Bits					
Default				● T _{W0}	
Handshake					
Default					
XON/XOFF			<u>H</u> ardware		
Force Control Lin	es				
DTR:			▼ RTS:		~
	Test CAT			Test PTT	
				OK	Cancel

Figure 26 JS8>FILE>SETTINGS>RADIO>CAT Control

() Settings				? ×
General <u>R</u> adio <u>A</u> udio	Reporting	Erequencies	Saved Messages	Notifications
Rig: Yaesu FT-DX101D			▼ Poll Inter	/al: 1 s
CAT Control Rig Options				
PTT Method				^
O c∆t				
Port: COM4				<u> </u>
Mode				
None None	USB		O Data/P <u>k</u> t	
Transmit Audio Source				
C Rear_Data		Eront/Mic		
Split Operation				
None	O Rig		O Fake It	
Advanced				
PTT command:				
Tx delay: 0.1 s				♦
Test CAT			Test PTT	
			OK	Cancel



Setting	S					?	
General	Radio	Audio	Reporting	Erequencies	Saved Messages	Notifications	-
Mod	ulation Soundcard						
Input:	Line (6- USB AUDIC	CODEC)				▼ Mono	•
Output:	Speakers (6- USB AUDIO CODEC)			▼ Mono	Ŧ		
Noti	fication Soundcard						
Output:	Speakers (Realtek H	High Definition Audio(SST))				•
Save Dir	ectory						
Location:	C:/Users/gmew5/	AppData/Local/JS8Ca	ill/save			Select	
	Remember power setti	ings by band					
Trans	mit	ngo oʻy banta		Tune			

Figure 28 JS8>FILE>SETTINGS>RADIO>Audio

- 5. Select the Audio Tab and set up as shown in Figure 28. Note you again need to use the correct USB AUDIO CODEC.
- 6. NOTE for some reason the FTDX101D has not appeared in this setup possibly because it is not an original setup.
- 7. You should now be able to operate JS8 with the FTDX101D.

Good Luck with your FTDX101D

73s

Greg

VK4GRM