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CLUB'S OFFICE	RS			1 Mars -		
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			QSL Manager Web Master Exam Secretary Editor	John Lovell John Lovell John Lovell Terry Adams	G3JKL G3JKL G3JKL G4CHD te	errywho35@gmail.com

EDITORIAL

Welcome to another Newsletter during this difficult time.

There have been 3 virtual presentations so far using Zoom which have been well supported. However, we are aware that not everybody can utilise this useful mode and hence recordings

where possible will be placed for members to view on our Club website.

Our next virtual presentation will be on Monday, June 8th starting at 7.30pm and will be given by Mike (G4KXQ) who will talk about the Mini VNA. Knowing Mike's attention to detail and in depth preparation, this will be one certainly worth watching. As always, PLEASE check into the 'Waiting Room' BEFORE the start of the meeting and ensure your displayed name gives preferably your name and callsign/SWL. These measures are to prevent uninvited 'guests' breaking into the Meeting and causing havoc. It is hoped to add further Zoom Meetings if members feel they are of use (feedback please) which it is hoped can be at fortnightly intervals for the time being until we know the extent of the 'lockdown'.

Our postponed AGM will take place via Zoom on June

22nd which will be an interesting experience and perhaps one to be able to say that you were part of in the future!! A final plea from your Treasurer, Ray - please can members who have yet to **pay this year's subscription (£13)** get in touch with Ray - cheque/direct transfer accepted (please add your name/callsign and 2020). Keep safe and keep healthy

Terry (G4CHD)

CLUB MEETINGS

Due to the present Covid 19 pandemic, ALL meetings scheduled to be held at the Appledore Football Social Club have been CANCELLED until further notice

Until such a time that the above Meetings are reinstated a programme of 'virtual meetings' has been arranged :-

Date	Start Time	Meeting
June 8 th	7.30 pm	<mark>Mini VNA</mark> Zoom Talk by Mike (G4KXQ)
June 15 th		TBA
June 22 nd	7.30 pm	Virtual AGM via Zoom

It is hoped to add further virtual Meetings so if anyone wants to give a Talk, please contact a Committee member.

GENEROUS DONATION TO CLUB

We have just been given a most generous donation of $\pounds 1761.25$ by the family of Ian (G4RVG) -SK from the sale of his radio gear which John (G8BXO) very kindly dealt with.

John (G3JKL) our Chairman will write a thank you letter to Ian's family expressing the Club's gratitude.

Ian was a regular attendee at our Club Meetings and a great supporter of the Club.

June 2020

LOCAL NETS

Zepp FM Net:	Mon/Tues/Thurs/Fri : 145.450MHz - 4pm - 5pm Wed via GB3DN - 4pm - 5pm
2m Elevenses FM Net:	Mon/Tues/Wed/Thurs/Fri: 11 - 12.00 noon Mon/Tues/Thurs 145.475MHz Wed via GB3DN Fri start 145.475MHz & then qsy to another band
Friday Night 2m Net:	Friday : 145.450 FM, 8 - 9pm
2m SSB Nets:	Wed: 8 - 9pm 144.260MHz USB SSB
	Sun: approx 10.30am (follows Top Band Net) 144.260MHz USB SSB (Vertical polarised)
Top Band Net:	Sunday 1.860 Mhz 9.30 - 10.15am (LSB - 32W pep max)

LOCAL REPEATERS

2m Stibb Cross Repeater (GB3DN) http://www.g0rql.co.uk/gb3dn.htm

User: Listen 145.6375 MHz - Transmit 145.0375 MHz. Access 1750 Hz Tone or 77 Hz CTCSS Repeater keeper is Tony (G1BHM)

70cm Twitchen (nr South Molton) Analogue Repeater (GB3SF)

User: Listen 430.9375 MHz - Transmit 438.5375 MHz Access 77Hz CTCSS Repeater keeper is Steve (G6SQX)

APRS Digipeater (MB7VE)

Frequency 144.800 MHz Repeater keeper is Steve (G6SQX)

Members will now be aware that at 8am on June 1st the **70cm Repeater GB3ND** was closed down after providing a wonderful service since August 2002 to amateurs here in North Devon. On behalf of all members, the Club would like to sincerely thank Jeff (G4SOF) for all his hard work and generosity over the years and we look forward to Jeff perhaps giving us a talk on GB3ND sometime in the future.

CROSSWORD

Many thanks to Stuart (M1FWD) for this month's Crossword. The answers are in next month's Newsletter. Good luck !



CLUES ACROSS

- 1) Low-frequency signal output (4)
- 4) Videotelephony and online chat facility (4)
- 7) Unintelligible or meaningless speech (9)

- 8) The highest railway station in England (4)
- Vessel for containing electrodes within an electrolyte for current generation (4)
- 12) Exaggerated statement (9)
- 13) Regulation (4)
- 14) British radio and TV manufacturing company, 1924-1960 (4)

CLUES DOWN

- 2) Not dead (5)
- 3) A wooden-soled shoe (5)
- 5) A binary compound of oxygen (5)
- 6) Taj ?, mausoleum in Agra, Victor Uniform (VU) land (5)
- 8) An administrative region of Sierra Two (S2) land (5)
- 9) Nine November (9N) land (5)
- 10) Insulated transmission wire (5)
- 11) Shrub of the genus Syringa (5)



Last month's answers :-

ANSWERS ACROSS: 4) end 6) heifer 7) interview 10) Kerguelen 12) Blythe 13) ode

ANSWERS DOWN: 1) shrink 2) filter 3) fearfully 5) nine 8) inlets 9) Wankel 11) Enid

ICOM IC-7300 SYSTEM - Part 2

To complement the series of virtual talks, the second and concluding article

describing in more detail the steps taken in setting up the software follows on from page 4.



SUDOKU PUZZLE

The aim is to enter a number into each cell so that **any** column, or any row, or any block of cells contains all numbers from 1 to 9

4			5	3				6
			7	6				
5		2						
	5	3					1	
6	4						7	2
	2					9	4	
						4		3
				9	3			
7				4	8			1

Terry (G4CHD

So that's it for this month

Stay safe and stay healthy

Terry (G4CHD)

ICOM IC-7300 SYSTEM - Part 2

by Terry (G4CHD)

In **Part 1** the installation of driver and virtual soundcard for the IC-7300 was described. In addition the installation of a driver and the program SDRuno for the RSP1A SDR was described together with the use of Omnirig as a means of sharing the virtual COM Port connected to the IC-7300. Finally the installation of the logger Log4OM was described to give the following schematic of the final system :-



In **Part 2**, the final part, Win4Icom will be added to the system to give a graphical interface to the various RX and TX settings of the IC-7300 and then finally the digital mode programs Fldigi and WSJT-X will be added to complete the system.

INSTALLATION & SETUP OF WIN4ICOMSUITE

Go to :-

https://icom.va2fsq.com/download-and-buy/

Select the appropriate version (ie x64 or x32) and click 'Download Trial'. Then download the Client Server followed by the Manual at :-

https://icom.va2fsq.com/wp-content/uploads/2018/05/Win4IcomSuite-Manual.pdf

Follow the instructions for a Quick Install (the IC-7300 driver has already been installed in Part 1) as described in the Manual.

You will see in the Manual that Win4Icom needs sole access to the virtual COM port (COM3 in my case and will be referred to throughout the remainder of this article) and cannot be fed via any 'splitting' software. It is therefore necessary to 'disconnect' Omnirig from COM3 and we will see later that it will be fed from one of the 6 Aux/COM Ports provided by Win4Icom via a virtual null-modem cable.

Win4Icom recommends Com0Com to generate such virtual cables and hence now is a good time to download this program.

COM0COM INSTALLATION

Go to :- <u>https://sourceforge.net/projects/com0com/</u>

Download and run the program and the following window will appear showing that a virtual cable (Pair 0) has been generated COM ports at each end. Rather odd numbering is adopted by default eg CNCA0 and

FIVE AND NINE PLUS

CNCB0 which can be edited later.

Click on either port number and they appear in the boxes at the upper right where they can be edited - CNCA0 has been edited to COM15 as shown opposite. Click Apply.

Click on the 'Add Pair' button and new virtual cables (port pairs) are generated which can be edited to more conventional numbering - the only requirement is that COM numbers chosen have not already been used. Suggest adding 3 cables - Pair 1,2 and 3 - see diagram below.



DISCONNECT OMNIRIG FROM COM3 AND CONNECT TO VIRTUAL CABLE (PAIR 1)

Open Omnirig and click on COM3 box and from drop down list select one end of virtual cable 1 eg COM6.

This releases COM3 for use by Win4Icom



CONTINUED SETUP OF WIN4ICOM

Run Win4Icom and being the first time and not yet setup, an advisory window will appear. Read it and then click OK. The Settings window behind will be revealed with the 1st Tab selected - Hardware & User Preferences :-

Important Always be sure you have your transmit antenna set correctly before pression the BY button in the transmit ancient.	Suite Solup ways be sure you have your transmit autenna set correctly before Surviver For Iddatain on the instalation passe see the first manual is available on icon wa2Big control control wasBig control control control wasBig control control wasBig control control wasBig control control wasBig control cont	Macros 50 / 4 Meter Defaults Keyboard and Controllers Transverte	
Prerequisites	×	Radio Model	Check for updates on startup? Requires Internet Connection Mini Control Screege 2
This is just an overview. For full details on the installation please see the first 10 pages in the manual. The manual is available on icom va2fsq.com/documentation.	Its Keyboard and Controllers Transverte + +	Address Address	Tum off radio on shutdown?
1: Make sure the drivers for the Icom USB port are installed. 2: Obtain the Comport number from the Windows device manager.	nces statup? Beguines internet Connection	Address	Restore Memory mode on shutdown?
For the 7300, 7610, 7850, 7851 and 9700	creens? Requires restart		Always use the RX antenna with Antenna 2
3. Open the Menu on your loom radio and set the following parameters:	Ltdown?	Radio Connection	Always use the RX antenna with Antenna 3
A: Set Connectors: CFV: CFV USB Port Unlink from [REMOTE] B: Set Connectors: CFV: CFV USB Baud Rate: 115200	Interna with Anterna 1	CI-V ComPort Network	Aways use the RX antenna with Antenna 4 Use single click in Icom Spectra (not for IQ)
For the 7100, 7600, 770 and 7800	nterna with Anterna 3	COM Part COM3 IP Address / 127.0.0.1	Synchronize Radio Clock to PC on Start?
3: Open the Menu on your Icom radio and set the baud rate to 19200.	ntenna with Antenna 4	Host Name	Transmit time out(min): O Off
Please note that for the 7600 remote power on is only available from the CHV remote port. If you wish to use this use a serial port to CHV level converter instead of the USB.	Clock to PC on Start? Off ○ 3 ● 5 ○ 10 ○ 20 ○ 30	Baud Rate 19200 ~ Port 50001	Modify Skins and Colors
Setup of Win4lcom	Modify Skins and Colors	Connect Connect	Windows may need closing and reopening for options to take effe
1: Select the model of the radio	asing and reopening for options to take effect.		Panadapter UDP Broadcast
2: Select a matching baud rate from above.	UDP Broadcast	Server Password	IP Address 127.0.0.1 Port 13064
3: Select the Com Port used by your radio.	0.0.1 Bed 13064	User Name Password	
4. Click on Connect and then Save	1001		Data Points 2048 V Frame Rate(F/s) Full
Setup of Network	✓ Frame Rate(F/s) ✓		
1: Follow the prerequisites as above for the Server	4lcomSuite	Panadapter	SDRPlay Stream Win4IcomSuite
2: Enter the IP Address, Port, User Name and Password in Win4lcomSuite	4lcomSuite-2	SDRPlay connected to RX antenna	Icom VFO A Win4IcomSuite-2
	4lcomSuite-3	 IQ Spectrum Scope for IC-7610 	Icom VFO B Win4IcomSuite-3
	uire closing and re-opening spectrum	None Changes require closing and re-starting Win4lcom	Changes require closing and re-opening spectrum
w Speedre		1	
Save Ext		Saue Evit	

Select IC-7300 for the Radio Model, COM3 for the Radio Connection COM Port and 19,200bps for the Baud rate and click on Connect (under the Baud rate) which should change to Disconnect if all is well.

Select 'None' for the Panadaptor setting (for the time being). Finally select any User Preferences such as 'Check for updates on start up' etc.

Note :- no need to change any other settings.

Finally click on Save and the Win4Icom Control Window will appear :-



Check that turning the IC-7300 tuning knob produces an identical frequency reading in the Control Window indicating that the IC-7300 and Win4Icom are intercommunicating.

Press Tools/Settings to return to the Settings window and change the Panadaptor setting from 'None' to 'SDRPlay connected to RX antenna' and click Save. The following Spectrum Display should also appear :-



If it does not - simply click on Window on the Menu bar and from the drop down menu select 'IQ Spectrum Scope' and the lower window as shown above should now appear. It should not be necessary to make this selection again.

Double left click anywhere within the Spectrum Display signal or waterfall areas and check that the

Win4lcomSuite Setting

frequency in both the Control Window and the IC-7300 changes and mirror each other.

We must now connect Omnirig to one of the six Aux/CAT ports in Win4Icom. Return to the Settings window using Tools/Settings but now select the 2nd Tab - '3rd Party SW/HW'.

Using Aux/CAT Port 1 - set the Port to COM7 (free end of virtual cable connected to Omnirig), Baud to 19,200 and choose suitable Tag text eg 'Omnirig' or 'Log4OM' and click Connect. This should change to Disconnect if all is well. (Leave Echo ticked)

Finally, it is convenient to Auto Launch Log4OM when Win4Icom starts by browding for Log4OM's .exe file location and left tick the box on the left. In v2 of Win4Icom there is now a box on the right to enable a program to close on exit.

Sof	ftware x/CAT Po	rt 1	Au	x/CAT P	ort 2	Au	x/CAT F	Port 3	Au	X/CAT P	ort 4	Au	x/CAT F	Port 5	ALD	CAT P	ort 6
Port	COM6	~	Port		~	Port		~	Port		~	Port		~	Port		~
Baud	19200	~	Baud	38400	~	Baud	38400	~	Baud	38400	~	Baud	38400	~	Baud	38400	~
Tag	Omnirig		Tag			Tag			Tag			Tag			Tag		
	Conne	ct		Conne	ct		Conne	ect		Conne	ect		Conne	ect		Conne	ect
	Ech	0		Ech	10		Ec	tho		E Ec	cho		Ec	ho		CW Sk	immer
Hai ICOI Add	ndware M Comp dress 12	atibl	Configure e HRC	Port	7809	nges	Ised for pa require	e resta	ardware ort Version	e that lister	ns anily. D V5 R	<i>Must u</i> adio Mo	s <i>e a dedic</i> idel	ated A	UX/C	AT port.	
Hai ICOI Add	ndware M Comp dress 12 o Launcl	atibl 7.0.0.	e HRE	Port	: Cha 7809	nges	<i>lsed for pa</i>	e resta	ardware art Version	e that lister	ns anly. D V5 R	<i>Must u</i>	se a dedic	cated A	UX/C	AT port.	exit?
	M Comp dress 12 o Launch Browse	atibl 7.0.0.	Configur e HRD 1	Port [7809	nges	Ised for pa require] Check fi .og4OM N	or HRD	archware ort Version	6 HRI G.exe	ns anly. D V5 R	Must u	se a dedic	ated A		AT port.	exit?
	M Comp dress 12 o Launcl Browse Browse	atibl 7.0.0.	e HRC	Port	: Cha 7809 5)\IW3H	nges	<i>lsed for pu</i> require] Check for .og4OM N	e resta or HRD lextGen	ardware ort Version	e that lister 1 6 HRI 3.exe	ns anly: D V5 R	<i>Must u</i>	se a dedic	cated A	UX/C	AT port.	exit?
	M Comp dress 12 o Launce Browse Browse Browse	atibl 7.0.0.	e HRD	Port [: Char 7809	nges	Ised for pa require] Check fr	e resta or HRD lextGen	ardiware wrt Version	e that lister	ns anly. D V5 R	Must u	se a dedic	cated A		AT port.	exit?
	M Comp dress 12 o Launcl Browse Browse Browse Browse	atibl 7.0.0.	e HRD	Port [: Cha 7809 5)\IW3	nges	Ised for pil	e resta or HRD lextGen	ardware art Version	e that lister	ns anly. D V5 R	Must u	se a dedic	ated A		AT port.	exit?
Han	M Comp dress 12 o Launce Browse Browse Browse Browse Browse Browse	atibl 7.0.0.	e HRD	Port	7809 5)\IW3	nges	Ised for pil	e resta or HRD lextGen	ardware art Version	e that lister	ns anly. D V5 R	Must u	se a dedic	cated A		AT port.	exit?

Note that since Win4Icom contains its own Spectrum Scope Display, it is no longer necessary to run SDRuno.

Click on Save and Win4Icom is now fully configured. It just remains for the user to adjust the Spectrum Display cosmetically to their liking and familiarise themselves with the Display controls with the aid of the Manual.

The following schematic shows the system developed so far :-



We now have a system offering graphical control of many of the IC-7300 functions some of which would normally require access through the menu together with a Spectrum Display (Panadaptor) enabling new signals to be quickly spotted or suitable unused places on the band in which to call CQ. All this combined with a logging program updated by the IC-7300 and offering qrz lookups, eqsl etc uploads, and many other functions.

Digital modes PSK and FT8 operating will now be added to the system.

There are numerous programs offering PSK including MixW (latest version 4 also includes FT8) and Fldigi. The latter has been adopted as I have used it before and it is free!

FLDIGI INSTALLATION AND SETUP

Go to www.sourceforge.net Files Tab, and select Fldigi (23/04/2020).

Now select fldigi.4.1.12.setup.exe (6.3Mb) and download and then run.

In the 'License' window that appears click Continue and then select Fldigi, Flarq, Start Menu Shortcuts, and Desktop Shortcuts.

Note the Destinations Folder (Program Files (x86) and click Install and Close.

Results in 2 icons on Desktop : Fldigi 4.1.12 and Flarq 4.3.7

Double left click on Fldigi icon which opens a Configuration window which can be bypassed and details entered later.

Since Fldigi is incompatible with Omnirig, it is necessary for Fldigi to communicate with the IC-7300 via a Aux/CAT Port in Win4Icom in order to access COM3.

Start Win4Icom and in the Control Window, click on Tools on top menu bar and select Settings from dropdown list.

Select 3rd Party SW/HW Tab in Settings window and select Aux/CAT Port 2. Using the Com0Com virtual Port 2 with COM 8 and COM9 at its ends, enter the required details for Aux/COM Port ie:-

Port COM9, 19,200 bps, and label it as Fldigi and Connect. Thus the other end of this virtual cable COM 8 will be used by Fldigi.



In the Autorun Section, browse to the Fldigi .exe file location and then tick 'Auto Launch' and 'Close on exit' boxes as required and finally click Save.

Close Win4Icom and rerun it when hopefully Win4Icom (both Control and Spectrum windows), Log4OM and Fldigi should all start.

Alt Tab to the Fldigi Window and click on the Configure Tab and select Config Dialog in drop down list.

Fldigi will now be configured - a one off activity

Expand and select Misc/Operator-Station and enter Callsign, QTH, Locator, Antenna details

Fldigi configuration				-		×
Configure Colors-Fonts Contests Dos Contests Modem Misc Modem Misc Gerestor-Station Rig Control Soundcard UI Waterfall Web	Operator-Station Station Callsign: G4 Operator Callsign: G4 Operator Name: Te Antenna: 20 Station QTH: W Station Locator: ID State [N] County	CHD CHD m wire end fed - 3m above g estward Ho! 71VA	round			
Collapse Tree	Restore defaults		Calue		Close	_

Now select Rig Control and select Hamlib

Select IC-7300 as the Rig, Device is COM 8 (other end of virtual cable), Baud rate is 19200 bps, and tick PTT via Hamlib, Audio on Aux Port and Sideband - Rig Mode.

Now tick Use Hamlib and you MUST then click Initialise.

Now select Soundcard/Devices and tick Port Audio and select for Microphone (USB Audio Codec) for Capture and Speakers (USB Audio Codec) for Playback. These Codecs were installed with the IC-7300 Driver. Tick Device supports full duplex

Select Waterfall/Display and untick 'Always show Audio frequency' if you prefer RF frequencies displayed rather than AF.

Finally select Logging/QSO Logging and tick 'Prompt Save on exit', 'Sort by date/time' OFF and 'Convert callsigns to Uppercase' or whatever is your preference.

Now click SAVE and CLOSE.

Check that IC-7300 /Win4Icom /Log4OM and Fldigi frequencies all track each other.

Before transmitting, it is imperative to set up the Transmit Drive levels





As shown in the diagram :-

USB Mod Level in the IC-7300 40%

Power setting in Fldigi - change to -5dB

Access Loudspeakers (USB Audio Codec) volume setting is via Windows Settings/System/Sound. In the Output section, ensure Output Device shown is Speakers (USB Audio Codec) and set Master Volume slider to zero.



We are almost now ready to have the first QSO via FSK with Fldigi but it is to useful first to edit the default Macros provided. RIGHT click on the selected Macro button (Note a left click will TRANSMIT the Macro!) and edit its name and contents as required. It is worth noting down a suggested sequence for a typical QSO.

Finally click on the book icon just below the frequency to Open List and select the band and BPSK31 frequency and from the top Menu bar select Op Mode/PSK/BPSK-31 and then select PKTUSB from the drop down list below the frequency - this will switch the IC-7300 into USB-D mode - essential for it to transmit in a data mode. You are now ready to have a QSO!

Having finished a QSO, and clicked on the 'Save QSO to log' button one has completed your first QSO.



Tick 'Upload to external services' (eg eqsl) Finally click green '+' to right of ADIF field box to insert it into File List window below and ensure it is ticked. Now click Save and apply at the top of this window.

Now when log is entered into Fldigi logbook it is also entered into the Log4OM logbook.



PSK was very popular until FT8 appeared which being a weak signal mode offered better communication using lower power. FT8 now predominates and is mainly achieved using the program WSJT-X.

However, FT8 functions using just three fixed macros whereas FSK does allow macros to be personalised as well as in addition allowing keyboard usage.

WSJT-X INSTALLATION AND SETUP

Go to <u>https://physics.princeton.edu/pulsar/K1JT/wsjtx.html</u> and download the relevant Installation package as well as the manual.

COM11

DCE
 RTS
 CTS

OUT1
OUT2
OPEN

Apply

Network Services

127.0.0.1

2333

Accept UDP request

I Notify on accepted UDF

Accepted UDP request restores

÷

OK Cancel

LIDP Server

LIDP Server:

UDP Server port number: 2237

er port number:

Secondary UDP Server (deprecated) Enable logged contact ADIF broadco Server name or IP address: 127.0.0.1

When WSJT-X is first run it is necessary as was with Fldigi to set up user details, radio CAT control, soundcard details and logging preferences followed by transmitter power level setting.

On the top menu bar select File/Settings and on the General Tab enter your Name, Callsign, locator etc. as shown opposite.

On the Radio Tab in WSJT-X a COM Port is required through which WSJT-X can communicate with the IC-7300.

Setup for com0com

Virtual Port Pair 0 CNCA0 CNCB0 Virtual Port Pair 1 COM6 COM7 Virtual Port Pair 2

COM8 COM9

-COM1

Add Pair Remove Pair

Just as with Fldigi, this can be achieved via a virtual null modem cable connected to one of the six Aux/CAT Ports in Win4Icom. Since Omnirig used Port 1, Fldigi used Port 2, then WSJT-X is connected using the virtual cable 3 (Pair 3) (COM10 and COM11 at its ends) and hence COM11 is used.

Run Win4Icom and go to Tools/Settings window and under the 3rd Party SW/HW Tab enter COM10 as the Port, 19,200 as the Baud, and suggest WSJT-X as a suitable Tag. Click Connect which should change to Disconnect showing that WSJT-X is communicating with the IC-7300 via the virtual cable, Win4Icom, and COM3.

In WSJT-X on the Audio Tab, select the USB Audio Codecs as was done for Fldigi.

Finally on the Reporting Tab, tick 'Prompt me to log QSO' and 'Enable logged contact ADIF broadcast' for future use and click OK.

Setting up Transmit Drive levels :

Windows :-

Control Panel/System/Sound : Master Volume (Speakers) set to 10% Check (USB Audio Codec used)

IC-7300 :- Power set to 75% Menu/Set/Connectors : USB Mod Level set to 50%

WSJT-X :-

Power (slider) set to approx 90% (minimise ALC whilst keeping power out - approx 70W on 20m)

Soundard Trput: Default Input Device Soundard Dutput: Default Output Device iave Directory	Mono Mono
nput: Default Input Device Sourcard	✓ Mono ✓✓ Mono ✓
Julgut: Default Output Device ave Directory scation: C:/Users/TERRY/AppOata/Local/WSJT-X/save	✓ Mono ✓
ave Directory scation: C:/Users/TERRY/AppData/Local/WSJT-X/save	
scation: C:/Users/TERRY/AppData/Local/WSJT-X/save	
	Select
zEl Directory	
ocation: C: Alsers /TERRY/AppRiate A ocal AVS IT-X	Colart
emember power settings by band	
Transmit Tune	

meral Radio Audio Tx Marros Pe	eporting Frequencies Colors Advanced
Challes Datally	nuverues cours nuverues
Station Details	
My Call: G4CHD My Grid: 1071VA	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	
Dimlau distance in miles	Decoded Text Font
Show DXCC, orid, and worked-before status	Show principal prefix instead of country name
Behavior	
Monitor off at startup	inable VHF/UHF/Microwave features
Monitor returns to last used frequency	Now Tx frequency changes while transmitting
Double-click on call sets Tx enable	ingle decode
Disable Tx after sending 73	Decode after EME delay
Calling CQ forces Call 1st	
Alternate F1-F6 bindings	Tx watchdog: 6 minutes
OW ID after 73	Devicely ON ID Interval
CW 1D arter 75	Periodic CW ID Interval: 0 💌
	UN Cancel
Settings	?
eneral Radio Audio Tx Macros Re	porting Frequencies Colors Advanced
Icom IC-7300	Politoterual: 1 e
	- For article val. 1.2
CAT Control	PTT Method
CAT Control	PTT Method
CAT Control Serial Port: COM11 ~	PTT Method VOX O DTR O VOX
CAT Control Serial Port: COM11 V Serial Port Parameters	PTT Method V VOX DTR
CAT Control Serial Port: COM11 Serial Port Parameters Baud Rate: 19200	PTT Method VOX DTR @ CAT RTS Port: COM11
CAT Control Serial Port: COM11 Serial Port Parameters Baud Rate: 19200	PTT Method O VOX O DTR @ CAT O RTS Port: COM11
CAT Control Serial Port: COM11 Serial Port: COM11 Baud Rate: 19200 V Data Rifs	PTT Method V V0X DTR @ CAT RTS Port: COM11 Transmit Audo Source
CAT Control Serial Port: COM11 V Serial Port Parameters Baud Rate: 19200 V Data Bits	PTT Method O VOK O DTR @ CAT O RTS Port: COM11 Transmit Audo Source O Rear/Data ® Front,Mic
CAT Control Serial Port Parameters Baud Rate: 19200 Deta Bits O Default O Seven @ Eight	PTT Method V VOX O DTR @ CAT O RTS Port: COM11 V Transmit Audo Source Rear/Data @ Front/Mc
CAT Control Serial Port COM11 Serial Port Parameters Baud Rate: 9200 Deta Bits Default O Seven Bight Stop Bits	PTT Method VIX DTR @ CAT RTS Port: COM11 V Transmit Audo Source Rear/Data ® Front/Mic Mode
CAT Control Serial Port: CCOM11	PTT Method O YOX O DTR @ CAT O RTS Port: COM11 ~ Transmit Audio Source O Rew/Data ® Front/Mic Mode O None O US8 ® Data/Pits
CAT Control Serial Port: COM11 Serial Port Parameters Baud Rate: 19200 Data Bits Default O Seven @ Eight Stop Bits Default @ One O Two	PTT Method V VOX O DTR © CAT O RTS Port: COM11 Tranemt Audo Source Rear/Data ® Front,Mic Mode O None O US8 ® Data,PKt
CAT Control Serial Ports COUMIN ~ Serial Port Parameters Baud Rate: [19200 ~ Data Bits O Default O Seven @ Bight Stop Bits O Default @ One O Two Handshake	PTT Method VICK O DTR © CAT O RTS Port: COM11 Tranmit Audo Source Rear/Data ® Front,Mic Mode O None O US8 ® Data/Pkt - Splt Operation
CAT Control CAT C	PTT Method VIOX OTR CAT RTS Port: COM11 V Tranumt Audo Source Rear/Data Front,Mic Mode None US8 Data,Pkt Split Operation Mone None Rear Planta Split Operation None Rear Planta Split Operation Rear Planta Split Operation Planta Sp
CAT Control Serial Ports (COM11	PTT Method V VOX O DTR © CAT O RTS Port: COM11 Tranemit Audo Source Rear/Data ® Front/Mic Mode O None O US8 ® Data/Pkt Split Operation ® None O Rig O Fake It
CAT Control Serial Port Parameters Baud Rate: Default Default Default Default Default Default Default None Default Default None Default Default None DX0N(NOFF Handware Fore Control Lines	PTT Method VICK VICK COTT CONTI CONTI Transmit Audo Source Rear/Data Front,Mic Mode None US8 Data/Pkt Splt Operation None Rig Pole It
CAT Control Serial Port: COM111 V Serial Port Parameters Baud Rate: 19200 V Data Bits O Default O Seven ® Eight Stop Bits O Default ® One O Two Handshake O Default ® One O Two Handshake O Default ® None O XON/XOFF O Handware Force Control Lines	PTT Method VIOX OTR CAT Port: COM11 V Transmit Audo Source Rear/Data Pront/Mic Mode None US8 Data/Pkt Split Operation Mone Rig Pake It Test CAT Vest PTT
CAT Control Serial Ports: (COM11 Serial Port Parameters Baud Rate: (19300 Data Bits Default © Seven ® Eight Stop Bits Default ® One © Two Handshale D Default ® None XGN(XOFF © Hardware Porce Control Lines DTR: RTS:	PTT Method VXX OTR CAT CONTI CONTI Port: CONTI Tranent Audo Source Rear/Data Pront/Mc Mode None USB Data/Pkt Splt Operation Phone None Reg ForctAT Test PTT
CAT Control CAT Control Serial Port: COM11 Serial Port Parameters Baud Rate: 19200 Default Default Stop Bts Default Default O Default None Xon(XOPF Handshale Force Control Lines DTR: RTS: V	PTT Method VICK OTR CAT RTS Port: COMII Transmit Audo Source Ran/Data ® Frant,Mic Mode None USS ® Data,Pkt Split Operation ® None O Rig O Pole It Test CAT Test PTT
CAT Control Serial Ports Serial Port Parameters Baud Rate: 19200 Deta Bits Default Stop Bits Default Ore Two Handshake Default None XXN/XOFF Hardware Force Control Lines DTR: XTS: X	PTT Method VIOX O TTR CAT
CAT Control Serial Ports (COM11 Serial Port Parameters Baud Rate: 19300 Data Bits Default © Seven ® Eight Stop Bits Default ® One O Two Handshake D Default ® None XGN/XOFF Hardware Force Control Lines DTR: XTS: X	PTT Method VXX CTR CAT CONTINUE CONTINUE CONTINUE Port: CONTINUE Rear/Data Pront/Mc Mode None US8 Data/Pkt Splt Operation Ne None Reg Ford/Pake It Test CAT Test PTT
CAT Control Serial Port: CCOM11 Serial Port: Parameters Baud Rate: 19200 Default Default Default Default Default None Default None Control Handshale DataMite Recorderal Force Control Lines DTR: RTS: V	PTT Method V CK O DTR CAT RTS Port: COMI1 Transmit Audo Source Raw/Data ® Front/Mc Mode None US8 ® Data/Pit Split Operation ® None O Rig O Pole It Test CAT Test PTT
CAT Control Serial Port F: (COM11 Serial Port Parameters Baud Rate: 19200 Deta Bits Default © Seven ® Eight Stop Bits Default ® One © Two Handshake Default ® None Default ® None Default ® None Default ® None Default ® XXNI/XOFF Hardware Force Control Lines DTR: RTS:	PTT Hethod VIX O DTR CAT ORIS Port: COMII Transmit Audo Source Rear/Data ® Frant/Mic Mode None USB ® Data/Pkt Splt Operation ® None O Rig O Fake It Test CAT Test PTT OK Cancel
CAT Control Serial Port: COM11 Serial Port: COM11 Serial Port: Parameters Baud Rate: 19200 Data Bits Default © Seven ® Bight Stop Bits Default ® One Two Handshake D Default ® None XON/XOFF Hardware Force Control Lines DTR: XTS: X	PTT Method V VOX O DTR © CAT O RTS Port: COMII Tranent Audo Source O Rear/Data ® Front/Mc Mode O None O US8 ® Data/Pkt Splt Operation ® None O Rg O Fake It Test CAT Test PTT OK Cancel
CAT Control Serial Ports Serial Ports Serial Port Parameters Baud Rate: 19200 Default © Seven ® Eight Stop Bits Default © One © Two Handhake Default © One © Two Handhake Default © None XOR/KOFF © Hardware DTR: RTS: Settings	PTT Method V CK O DTR © CAT R TS Port: CONIII Traremit Audo Source Roar, Data ® Front,Mc Mode O None O US8 ® Data,PKt Splt Operation @ None O Rig O Pole It Test CAT Test PTT CK Cancel
CAT Control CAT Control Serial Port Parameters Baud Rate: Data Bits Default Stop Bits Default Default Control C	PTT Helhod V CK O DTR © CAT RTS Port: COMI1 Transmit Audo Source Roar, Data ® Front,Mc Mode None US8 ® Data,Pkt Split Operation ® None Rig Pole It Test CAT Test PTT CK Cancel 2 2 2 2 2 2 2 2 2 2 2 2 2
CAT Control CAT Control Serial Port: Parameters Baud Rate: Data Bits Default Stop Bts Default Default Control	PTT Helhod VIX O DTR CAT ORTS Port: COMII Trammit Audo Source Ram/Data ® Front/Mc Mode None USB ® Data/Pkt Splt Operation ® None O Rig O Pole It Test PTT CK Cancel 2 Ports CAT Test PTT Prequencies Colors Advanced
CAT Control Serial Port: COM11 Serial Port: ECOM11 Serial Port: Parameters Baud Rate: 19200 Default: 9 Even Bight Stop Bts Default: 9 One Two Handshake Default: 9 None XCN/NOFF Handware Force Control Lines DTR: RTS: Settings Setting Settings Settings Setting Setting Settings Settings Setti	PTT Method VIX VIX CAT CONTINUE CONTINUE Prot: CONTINUE Tranent Audo Source Rear/Data Prot.Mac Mode None USB Pront/Mc Mode Split Operation Prot Split Operation Ne None Rig Proke It Test CAT Test CAT Test PTT Cont Content C
CAT Control Serial Ports Serial Ports Serial Ports Data Bits Default © Seven ® Eight Stap Bits Default © One © Two Handshale Default © One © Two Handshale DTR: ♥ RTS: ♥ Ports Settings Settings Settings Settings Settings Rado Audio Tx Macros R Logging Prompt me to log QSO	PTT Method V OX O DTR O VOX O TR CALL OF CALL OF CA
CAT Control Serial Port: COM11 Serial Port: Parameters Baud Rate: 19200 Deta Bits Default Stop Bits Default One XON/XOFP Handshake Force Control Lines DTR: RTS: Settings Set	PTT Helhod VICK OTR CAT ORTS Port: COMII Trammit Audo Source Ram/Data ® Front,Mic Mode None USB ® Data/Pkt Split Operation ® None O IUSB ® Data/Pkt Split Operation ® None O Rig O Pole It Test PTT CKC Cancel 2 concel Cancel Concel Concel Concel Cancel

Finally - it just remains to ensure that the Mode is FT8, and the IC-7300 is tuned to the FT8 part of the chosen band :-

From the top menu bar select Mode/FT8

Then, to the left of the frequency display, from the drop down list select your chosen band/Frequency - eg 17.074MHz

Ensure the IC-7300 is now switched to USB-D mode.

Hopefully everything now works.

If WSJT-X is not able to decode FT8 signals, it may be that the Windows clock is not sufficiently accurate and time synchronisation software eg 'NetTime'is needed.

Instructions for operating WSJT-X is not really part of this article as there are plenty of YouTube videos etc. However, when double left clicking on a station in the Activity/RX Frequency areas, doing so with the Cntl key depressed will shift BOTH the TX and RX frequencies.

QSOs are logged to a Logbook within WSJT-X but just as with Fldigi, it is useful to also be able to copy any log entry into

the Log4OM2 Log and also auto upload the entry to eg Eqsl.

To do this :-

In Log4OM2 go to Settings/Program Configuration/Software Integration/Connections and ensure that the UDP Tab is selected and in the UDP Inbound area enter 2237 in the Port box, 'WSJT_DIRECT' in the Connection Name box, select 'JT_MESSAGE' from the drop down list for the Service Type box, and finally click the green '+' to add it to the UDP Inbound Connections window below as shown :-

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WSJT-X v2.1.2 by K1JT

Program Settings Edit program config Program Scheduler User Configuration Station Information My References Station configuration	Connections UDP UDP Proxy Remote Control UDP INBOUND Port Connection name	Service type		UDP OUTBOUND	Connection name	Service type	
Confirmations	0	~	+	0		~	•
- External Services	Default answer on msg received			Broadcast	Destination IP Address	127.0.0.1]
Info Providers Map Settings Backup	UDP Inbound con	nections		🛩 🗕 🕫 🗴	UDP Outbound co	nnections	
VOACAP Propagation Auto Start Auto Start Auto devices and voice keyer CAT interface Software integration Connections	✓ [UDP_INBOUND] [JT_MESSAGE] [2	237] WSJT_DIRECT					
- Antenna rotator	0 items select	ted			0 items selec	ted	
Applications FLDigi	WSJT-X default port: 2237			PSTRotator defau	lt port: 12040		

Configurations Band Activity Rx Frequer UTC dB DT Freq Message DT Freq Messag 0.4 1408 LASARI SSERFE UN/R KIGUY DL2BCM R-20 RN4HFO DJ2RG J052 -11 0.5 1632 ~ -1 0.6 1968 ~ -1 0.6 1968 -24 -0.1 2045 R3TIR RXOAE -01 ROQAF UA9AX MOO4 2EOCVN/NHS <RY1A> 73 R3TIR SP2MKO -10 LX1SID EA55M IM98 1.3 2317 095230 -10 0.3 2372 ~ 095230 -15 0.1 2443 ~ 095230 -13 -0.2 1112 ~ 095230 -17 0.2 1279 ~ 0.5 1555 95000 13 IKINDD R2AL ISOBKS YO2UH KN15 095030 11 IKINDD R2AL -2 0.1 1537 ~ R2AL IKINDD R+02 IKINDD R2AL -20 <007STAYHOME> EA7CU -22 0.6 1555 95230 -13 095230 -17 0.2 2204 ~ KIGUY EA4GWT IN80 095230 -22 1.0 2367 ~ RAOAKT R7CA -19 095130 14 1555 IKINDD R2AL **RR73** CQ only Log QSO Stop Erase ble Tx Halt Tx Tx even/1s 20m 14.074 000 Tx 1873 Hz 🛊 🗹 Hold Tx Freq A 7 CO Rx 1556 Hz ≑ KO85 dB -60 1712 mi Report 5 🗘 Add Auto Seq Call 1st R2AL G4CHD IO71 TNX 73 G V O Free ms 4/15 WE WSJT-X - Wide Grap Contr 600 800 1000 1200 1400 1600 1800 2000 2200 2400 Start 200 Hz Palette Adjust... Flatten Ref Spe Spec 30 %

Click 'Save and Apply' (green tick).

Still in Log4OM2, go to Settings/Program Configuration/Software Integration/Applications/WSJT-X/JTDX and tick the box labelled 'Import QSOs from JT Message #12' as shown :-

Configuration				
Save config Save and apply Exit				
Configuration Program Settings Sation Information Program Settings Proprimations Propri				
South	 South	Ucean	Australi	_

and click 'Save and Apply' (green tick)

Now in WSJT-X go to File/Settings/Reporting tab and complete the 'Network Services' area as shown :-

Settings							?	
General	Radio /	Audio	Tx Macros	Reporting	Frequencies	Colors	Advanced	
Logging								
Prom	pt me to log (QSO			Op Call:	G4CHD		1
🗌 Log a	automatically ((contes	ting only)					
	vert mode to R	TTY						
🗌 dB re	ports to com	nents						
Clear	DX call and g	rid afte	r logging					
Network	Services							
Enab	le PSK Report	er Spot	ting					
UDP Serv	/er		12					
UDP Ser	ver:	12	7.0.0.1		Accept UDP requ	ests		
UDP Ser	ver port numb	er: 22	37		Notify on accepte	ed UDP requ	Jest	
					Accepted UDP re	quest resto	res window	
Seconda	ry UDP Server	(depre	cated)					
Enab	le logged con	tact AD	IF broadcast					
Server n	ame or IP add	ress:	127.0.0.1]
Server p	ort number:	[2333				+	1
						OK	Canco	

and click on OK. Close both Log4OM" and WSJT-X and restart for these changes to take effect.

Now whenever a station is selected in WSJT-X to work by clicking on it, its details will appear in Log4OM2 and when the QSO is saved, it will be copied into the Log4OM2 log and after a 1 to 2 minute wait will be uploaded to Eqsl.

Final schematic diagram of the whole system :-



Terry (G4CHD)