

ELAD Application Note AN-005 Sharing FDM-DUO CAT USB Port using VSPE

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Introduction

The purpose of this application note is to describe how to share the physical COM port of the FDM-DUO with more than one program using VSPE (Virtual Serial Port Emulator).

1 VSPE settings

When starting VSPE the window below is shown.

😽 Virtual Serial Ports Emulator (Emulation started) - 🗆 🗙											
File	View	Language	Emulation	Device	Help						
2			**		×		0				
Tit	le						Device	Statu	ເຮ		
l Derek								 Luc II.			
Ready								http://w	ww.eterk	oqic.com	11

Click on "Device" and then "Create". The following window is displayed, choose "Splitter" in the Device Type menu.

Specify device type	>
COM1	Device type Splitter Data splitter creates virtual device that represents existing serial port to share it between different applications. Please note that if you have created virtual serial port COM5, all applications must be configured to use COM5.
P New serial port	💾 Existing serial port
	< Indietro Avanti > Annulla ?

Clicking on "Next" the window below is shown.

Device properties	X
Virtual serial port COM11	Data source serial port COM8 Settings Read only Redirect modem registers Initial modem registers state RTS DTR
	OK Cancel

For the "Virtual serial port" select the number you prefer. For the "Data source serial port" select the one corresponding to the FDM-DUO CAT USB port. Leave the initial states of RTS and DTR unchecked to avoid undesirable transmission state during startup.

Click on "Settings" and choose the correct "Speed". To know the current baud rate of the FDM-DUO, go to the menu 70 "CAT BAUD".

Serial port settings						
	Speed	38400				
	DTR/RTS	NO				
	Parity	no				
	Bits	8				
	Stop bits	1				
	ReadIntervalTimeout	-1				
	ОК	Cancel				

Then click "Finish" and the main window shows the splitter.

📚 Virtual Serial Ports Emulator (Emulation started) - 🗆 🗙						
File View Language Emulation Device Help						
🖻 🖬 💽 • 🍡 🐄 🗞 🇞 🚮	8					
Title	Device	Status				
COM8 => COM11	Splitter	Ready				
(Monday, December 04, 2017) [COM8 => COM11] Ini	tializationOK (1)					
Ready		http://www.eterloo	gic.com	1		

To start the emulation click on the green triangle, the "Status" should become "Ready".

2 Start programs

Now you can start to use more than one program on the virtual serial port.

First start the Hercules terminal program. You can download it from <u>https://www.hw-group.com/products/hercules/index_en.html</u>. Open the port with the correct baud rate clicking on the "Open" button. Next send the "FA;" CAT command that give the current VFOA frequency using the "Send" button. You can insert another CAT command and make some more test.

Security HW-group.com	_		\times
UDP Setup Serial TCP Client TCP Server UDP Test Mode About			
Received/Sent data	- Seriel -		
Serial port COM11 opened	Name		
FA; FA00003573000; FA; FA00003583700;	COM11		
	Baud		
	38400		
	Data sizi	e	
	8		
	Parity		
	Inone		_
	Handsha	ake	_
	UFF		<u> </u>
	Mode		
	Free		<u> </u>
	2	🗶 Close	
Modem lines		•	
🔘 CD 🔘 RI 🛞 DSR 🛞 CTS 🔲 DTR 🥅 RTS	HWg	; FW upda	ate
Send			
FA:	ШH		
	пц	Jgro	u p
HEX Send	www.H	W-group.c	om
	Hercules	SETUP U	tility
	Ve	ersion 3.	2.6

Settings ? ×							
General Radio Audio Tx Macros Report	ing Frequencies Colors Advalued						
Rig: Kenwood TS-480 CAT Control Serial Port: COM11 Serial Port Parameters Baud Rate: 38400 Data Bits O Seven Data Bits One Two Handshake Image: None XON/XOFF Hardware Force Control Lines DTR: RTS:	✓ Poll Interval: 1s ✓ Poll Interval: 1s PTT Method O VOX O DTR O CAT O RTS Port: COM11 ✓ Transmit Audio Source Rear/Data ● Front/Mic Mode O None ● USB O Data/Pkt Split Operation ● None						
	OK Cancel						

Second, start WSJT-X for example and set it as shown below.

Now, both the programs are running on the same virtual port.