N1mm and QARTest setup to connect to SunSDR (Pro and 2DX)

Needed SW :

- Port com emulator (<u>Com0Com</u> free o <u>VSPE</u> pay. I suggest com0com)
- Radiosync (included in EESDR3)
- N1MM
- QARTest

Assumptions:

you are able to install and use the above mentioned software.

- 1. Install Com0Com
- 2. Make 2 pair of virtual com port, in my example I used com5/com6 and com17/com18



- 3. Once done, restart PC to make the modifications effective
- 4. Once you've installed and configured EESDR3, open the installation folder you will find Radiosync which actually will translate TCI into Serial language

`	С	🖵 > … Programmi > ExpertEle	ctronics > ExpertSDR3			Cerca in ExpertS
%	Q	͡⊡ ④ ௴ Ŵ Ordin	na ~ 🔳 Visualizza ~	•••		
		Nome	Ultima modifica	Тіро	Dimensione	
	*	💼 tis	12/01/2024 16:22	Cartella di file		
	*	🔁 webview	12/01/2024 16:22	Cartella di file		
	*	Ecoder2Firmware.exe	12/01/2024 08:48	Applicazione	1.115 KB	
		ExpertSDR3.exe	12/01/2024 08:55	Applicazione	33.616 KB	
		🖬 ffmpeg.exe	24/08/2018 17:02	Applicazione	35.794 KB	
		💭 Firmware.exe	12/01/2024 08:55	Applicazione	10.556 KB	
		🖲 RadioMacros.exe	12/01/2024 08:55	Applicazione	1.772 KB	
010		RadioSpot.exe	12/01/2024 08:52	Applicazione	1.143 KB	
		RadioSync.exe	12/01/2024 08:55	Applicazione	1.787 KB	
		RemoteApplication.exe	12/01/2024 08:53	Applicazione	7.759 KB	

5. Make a shortcut or even better, add to the EESDR3 list of autostart sw

	Files/ExpertElectronics/ExpertSDR3/RadioSync.exe	Arguments	
RX	es/ExpertElectronics/ExpertSDR3/RadioMacros.exe	Arguments	
тх	Files/ExpertElectronics/ExpertSDR3/RadioSpot.exe	Arguments	
_	//E:/01_ FILES RADIO/WN-2d Version 2.16/wn2.exe	Arguments	
	file:///C:/Program Files/LwSoft/SDCx64/SDC.exe	Arguments	
	file:///E:/04_ACOM 600/ACOMController.exe	Arguments	
	Application file path	Arguments	
	Application file path	 Arguments	

- 6. Open radiosync
- 7. Make a configuration set and name it N1mm/QARtest CAT (or whatever you like)
- 8. Check that the TCI port reflect the one in your Rig (Default is 50001)
- 9. Below is what you should add to your set:

🥙 RadioSync						-		×
QARTest/N1MM						Î	•	
	TCI •			CAT (T	S-480) 🔍			
localhost:40001			Port name			COM6	▼	
	Transceiver 1	▼	Parity			None	▼	
	TX as Mute		Data			8	V	
			Stop bit			1	V	
			Baud rate			57600	V	
			PTT			None		
			Keyer			None	▼	
			CW Skimmer mode			(
				PTT tr	ansfer 🏾 🔍			
				Sound	d card 🏾 🔍			
				IQ ou	utput 🄍			
				TCI tr	ansfer 🏾 🔍			
			Experimental	Rig	Sync 🔍			

10. Make a second configuration set and name it CW keyer

11. Below is what you should add to your set:

Keyer					Î	
1	rci • 🔻		CAT (TS	-480) 🔍		
localhost:40001		Port name			COM17	▼
	Transceiver 1	Parity	- I		None	
	TV ar Muta	Data	- 1		8	
		Stop bit			1	
		Baud rate			9600	
		РТТ			RTS	
		Keyer			DTR	
		CW Skimmer mode				
			PTT tran	nsfer 🏾 🔍		
			Sound	card 🔍		
			IQ out	put 🔍		
			TCI trar	nsfer 🔍		
		Port name			None	
		Parity			None	
		Data			8	

12. Now enable the 2 set

🥐 RadioSyr	c								-	×
	QARTest/N1MM	TCI 🧕	CAT 💿	VAC •	IQ •	TRF •	R.SYC •	PTT •		
	Keyer	TCI 🧕	CAT 💿	VAC •	IQ ●	TRF 🖲	R.SYC •	PTT ●		

If everything is ok you should see 4 green light (2 for each set)

13. Save the Radiosync configuration closing it from the system tray



14. Open radiosync again, you should find the 2 set

N1MM setup

15. Open N1mm and click to Config/configure ports ecc.



- 16. Start with the CAT port which will be responsible in case N1mm will not talk to EESSDR3.
- 17. In the first drop-down menu choose COM5, radio ExpertSDR (or Kenwood).
- 18. Click to set e configure as following

Config	Jurer										
Hardware	Function	on Keys Digital Mode	s Ot	ther	Winkey Mod	de Co	ontrol Antennas	Score Reporting	Broadcast Data	WSJT/JTDX	Setup
								O S01V ○ S	02V 🔿 SO2R		
Port		Radio	Digi	CW/0	Other Details		IP Addr:Port				_
COM5	~	ExpertSDR ~		\Box	Set		Com5				\times
COM18	~	None 🗸			Set		Speed	Parity	DataBits	Stop Bits	
None	~	Kenwood 🗸			Set		57600 ~	N V	8 ~	1 ~	
None	~	Kenwood 🗸 🗸			Set		DTR (pin 4)	RTS (pin 7)		Radio Nr	
None	~	None 🗸			Set		Always Off \sim	Always Off \sim		1 ~	
None	~	None 🗸			Set			Radio Polling R	ate		
None	~	None 🗸			Set			Normal	~		
None	~	None 🗸			Set		Rig Blaster Inte	errupt 🗌 Enable	Both Hardware	& Software PT	п
LPT1			-		Set			PTT via PTT via	Radio Commano Radio Commano	d SSB Mode d CW Mode	
LPT2					Set			PTT via	Radio Commano	d Digital Mode	
LPT3					Set						
								FootSwitch	(pin 6)		
								None	\sim		
							Suggested Expert	SDR Settings:			
							57600, N, 8, 1, DI	R=Always Off, RI	S=Always Off o	r CW or PTT	
		OK		-	ancel					_	
		UK			ancer		Help		01	Cance	1

19. Setup the Keyer

MM o o

- 20. In the second drop-down menu select COM18, radio NONE, flag CW/other
- 21. Click on set e configure as follow

1	🖞 Config	urer																		\times
н	lardware	Functio	n Keys	Digital M	odes	Othe	r Wink	ey Mo	ode	Control	Antennas	Sc	ore Repo	orting	Broadca	ast Data	WSJ	T/JTDX	Setu	р
	Port		Radio			Digi C	W/Other	Details		IP A	ddr:Port	0	S01V	0	502V ()) SO2R				
	COM5	~	Expert	SDR	\sim			Set		Com18									×	iys
	COM18		None		\sim		2 (Set)											
	None	~	Kenw	ood	\sim			Set												
	None	~	Kenw	ood	\sim			Set		DTR (pi	n 4)	RTS	S (pin 7)				VFO Nr			
	None	~	None		\sim			Set		CW	~	PTT	Г	~		Ľ	Both	~		
	None	~	None		~			Set		PTT De	ay (msec)								
	None	~	None		~			Set	ł	70										
	None	~	None		~			Set		Rig	Blaster Int Kev	errupt	t							
	LPT1							Set		_										
	LPT2							Set												
	LPT3					L		Set		Tue	adia Desta		FactOre	itab (a	i= (?)					
F										None			None	itch (p	(iii 0) ~					
1																				
																				۲
				ОК			Cancel			Не	p					ОК) (c	ancel		

If everything was correctly configured and no other errors of software issues , you will see the correct frequency on N1MM and the CW code will be correctly sent.

QARTest configuration

22. Open the software and click on Log/configura porte e rete.



23. Add the parameters as per picture below

Configurazione Porte e Rete ×
Radio (CAT) 🔞
Radio Porta Baud Rate Stop Bit DTR (Pin 4) RTS (Pin 7) Poll rate (ms)
Kenwood (HF) COM5 Kenwood (HF) Kenwood (HF) Kenwood (HF)
PTT via CAT Sospendi polling in TX Usa Offset Configura
Rete
Abilita Rete 🔽 PCMAX Auto Connessione 🗖 192.168.100.255 Default
CW 😢
Porta CW Pin CW Ritardo CW Usa WinKey COM18 V DTR V Usa PTT V 40 (0 - 999 ms)
SSB (PTT+DVK) 😮
Porta PTT Pin PTT Ritardo DVK Footswitch
Periferica DVK Escludi (mute) linea quando DVK attivo
Line 1 (Virtual Audio Cable)
RTTY 😧
Porta RTTY NONE (Solo per MMTTY) Porta
Switch Audio 2Radio 😧 Band Data 😧
Porta 🔽 🔽 Usa Rete Porta LPT 💌
Radio 1 ⊂ Radio 2 RX Stereo a fine TX
<u>S</u> alva <u>Annulla</u>

That's it, enjoy Max IU4JNR