How to Setup N1MM+ for use with WKUSB Steve Elliott - K1EL

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Plug WKUSB into one of your PC's USB ports

Use K1EL's WKscan app to determine where your WKUSB is mapped:

Com Port List		
com1 - unassigned (r) com2 - WKUSB 3		
K1EL Systems - Steve Elliott	Scan	Exit

http://www.hamcrafters2.com/WKscan.html

This shows that there is a WKUSB with a WK3 IC mapped to USB COM port 2

Now start up N1MM+ and click on the Config Tab and then select the first entry as shown:

File	Ed	it View	Tools	Config	Window Help	
сw	РН		5		nfigure Ports, Mode Control, Audio, Other ange Your Station Data	
160 80	160 80				e Logger+ Audio	
40	40	• •	🔘 Run		ter Sends Message (ESM mode) ot All S&P QSO's	Ctrl+M
30 20	30 (20)	F1 S&P F7 Rpt	F2 F8	_ `	Ying Wipes the Call & Spots QSO in Bandm	ap (S&P)
17	17	Esc: Stop	Wip		ab Focus From Other Apps When Radio is To Not Automatically Switch to Run on CQ Fro	
15 12	15 12	Headin		_	ow Non-Workable Spots and Dupes in Band	
10	10	Call h	istor		set RX Freq to TX when QSO is Logged (Run	& Split)
0 spot	ts load	led after filte	ering.		b Receiver Always On ! Repeat	Alt+R
					CQ Repeat Time	Ctrl+R
				CM	/ / PH AutoSend Threshold	

This brings up the port configuration dialog box. This is where all the different devices attached to N1MM+ are set up.

We want to set up a WinKeyer device on COM2.

- 1. Set the Com Port for WKUSB, in our case we select COM2.
- 2. Specify that it is a CW device by clicking the CW/Other checkbox
- 3. To continue on to the Com Port setup dialog box, click Set

🖞 Configu	rer			-		-	-	-	×
Hardware	Function Keys	Digital Modes	Other	Winkey	Mode Control	Antennas	Score Reporting	Broadcast Data	Audio
Port	Radio		Digi — C	W/Other	Details		S01V	⊙ so2v ⊙	SO2R
COM2	 None 	-		V	Set	DTR=	Always On,RTS=/	Always On,Tx=1	
None 4	- None	-		4	Set				
None	 None 	•			Set				
None	- None	-			Set				
None	 None 	•		□ \	Set		• 3		
Non	- None	-			Set				
Nore 🖌	 None 	•		▫∖.	Set				
None	 None 	•			Set				

Clicking Set brings up the Com2 configuration dialog box, all we need to do here is click the WinKey checkbox,

Com2		
DTR (pin 4) Always On PTT Delay (msec) 30 Allow ext inter WinKey Two Radio Protoco None	Always Off	Radio Nr 1
Help		OK Cancel

Now click OK to close the Com2 configuration dialog box which brings us back the the Configurer dialog box. Here we select the Winkey tab as illustrated below:

🖞 Configu	rer								×
Hardware	Function Mana	Distal Madea	0.0	14/2-1	No de Ocertari		Darra Barratian	Duradiana (D	ata Austra
naiuwaie	Function Keys	Digital Modes	Other	Winkey	Mode Control	Antennas	Score Reporting	Broadcast D	ata Audio
- Port	Radio		Digi — C ¹	W/Other	Details		S01V	⊙ S02V	S02R
COM2	 None 	-		7	Sa	DTR	=Always On,RTS=A	Always Off,Tx	=1
None	 None 	-			Set				
None	✓ None	•			Set				
None	 None 	•			Set				
None	 None 	-			Set				
None	 None 	-			Set				
None	 None 	•			Set				

Clicking on the Winkey tab brings up the WinKeyer specific configuration dialog box which is shown on the next page.

M Configurer	— ———————————————————————————————————
Hardware Function Keys Digital Modes Other Winkey Mode Control Anter	nnas Score Reporting Broadcast Data Audio
Iambic B Keying Mode Autospace Pot is wired with two leads Winkey Winkey Winkey 2 PTT Pin 5 Function 469 Sidetone Frequency Reverse Paddles Paddle only sidetone	Winkey Lite For WKLite, J1 tip is set to CW, ring is set to PTT
Winkey Speed Pot Control	
Ignore Winkey Speed Pot	
 Use Winkey Speed Pot Use Winkey Speed Pot for Paddle and Keyboard CW Only 	
0 Lead Time (0-250) x 10	
0 Tail Time (0-250) x 10 msec	
0 First Character Extension (0-250) in msec	
0 Keying Compensation (0-250) in msec	
1.00 Hang Time	
OK Cancel	Help

There are very descriptive hints on most of the controls. The Winkey 2 options also apply to WK3 based keyers. Disable Paddle Only Sidetone for initial testing purposes.

Winkey Speed Control has three options:

- 1. *Ignore Speed Pot* which only allows the host to control sending speed
- 2. Use Speed Pot which tells the host that the speed pot will set sending speed
- 3. Paddle & Keyboard where the host controls only the message speed

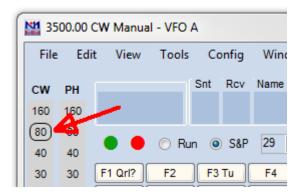
Lead and tail settings apply to PTT delay

Keying compensation adjusts dit and dah spacing relative to sending speed.

Hang Time is similar to PTT tail except that it is proportional to sending speed.

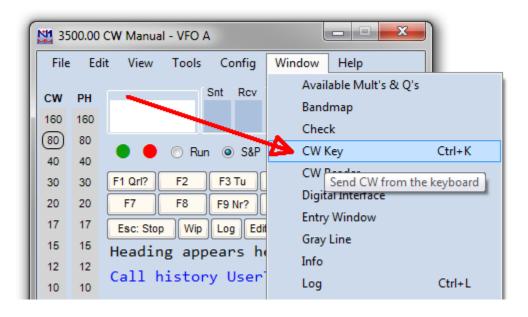
When you are finished click OK and then another OK to close the Configurer.

Now that we are back to N1MM+ main control dialog box we can do some WKUSB testing. First off select CW mode by clicking on a band in the CW column:



Now on the PC's keyboard enter CTL-T to put WKUSB into tune mode. Cancel tune mode by entering CTL-T a second time. With tune enabled you should hear sidetone coming from WKUSB.

Now either enter CTL-K or select the CW Key Window as shown:



The CW keyboard window is now displayed and you can type into it to send letters to WKUSB. Note that when the Send CW window is up, the main N1MM+ dialog box is disabled. For a final test, turn the speed pot and you should see the CW Speed display in the main N1MM+ dialog box change. (This assumes that the speed pot has been enabled in the Winkey configuration dialog box)

_		CW Manual					23
File	Edit	t View	Tools	Config	Windo	w Help	
cw	PH		Sn	t Rov	Name	Comment	
160	160						
(80)	80		🔘 Run	O SIP	20 🌲]	
40	40		U Han	J 201			
30	30	F1 Qrl?	F2	F3 Tu	F4	F5 His	F6
20	20	F7		F9 Nr?	F10	F11	F12
17	17						
15	15	Esc: Stop	Wip	Log Ed	it Mar	Sto Sp	QRZ
12	12	Headin	g appe	ars h	ere w	hen	
10	10	Call h	istory	User	Text	appears	
CW Sp	eed =	20			No	Score	0:
end CW							
TEST							

That's it for basic N1MM+ and WKUSB testing. Now it's time to learn all the the amazing features in N1MM+ for setting up messages and getting up to speed with automatic CW contest exchanges.

73 Steve K1EL