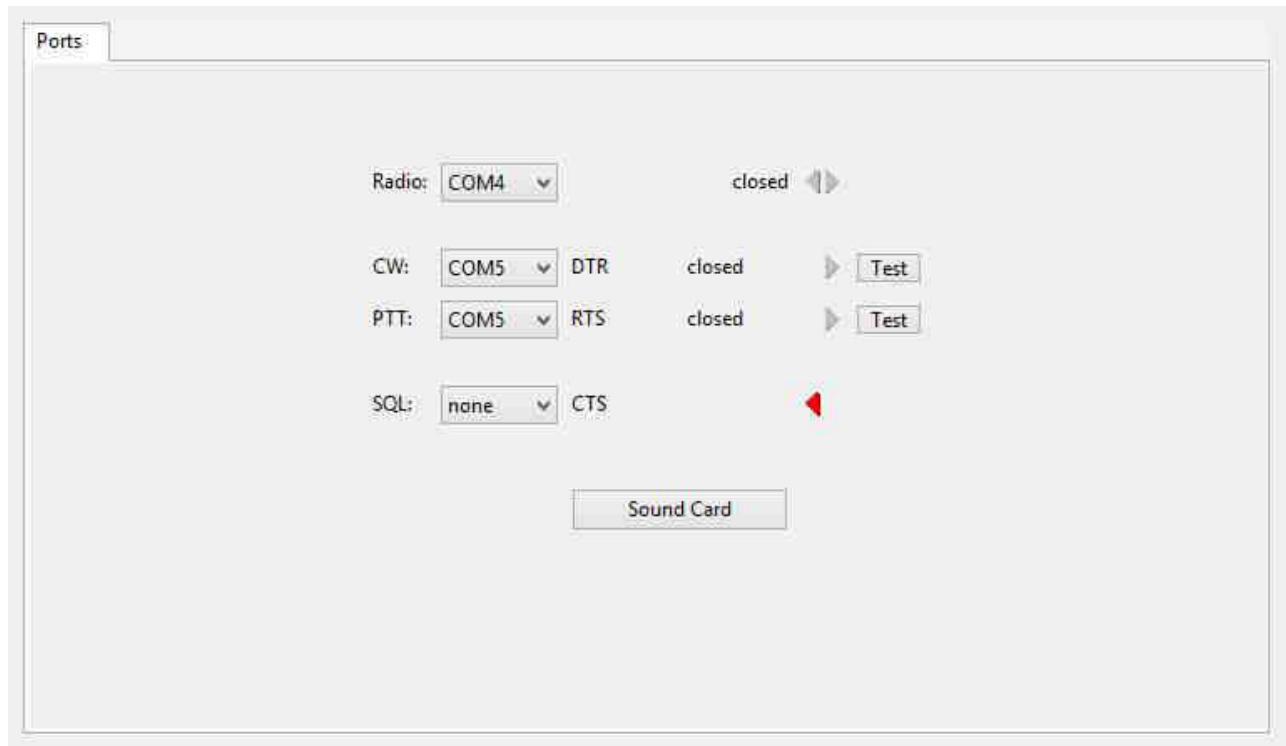


# USB Interface III and N1MM Logger+ setup

## Router setup:

**Note:** The specific port numbers are not important. The key is consistency - the same port number must be used for a specific function in both Router and the logger.

1. Assign the radio control virtual COM port.
2. Assign a port for CW and PTT. The same port will be used for FSK if you use EXTFSK.



3. Save settings to a preset by selecting menu **Preset | Save as**. Choose a position and name it N1MM.

## N1MM setup:

Port	Radio	Digital	CW/Other	Details
COM3	None	<input type="checkbox"/>	<input type="checkbox"/>	Set
COM4	IC-706MKIIG	<input type="checkbox"/>	<input type="checkbox"/>	Set
COM5	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Set
COM6	None	<input type="checkbox"/>	<input type="checkbox"/>	Set
COM7	None	<input type="checkbox"/>	<input type="checkbox"/>	Set
COM8	None	<input type="checkbox"/>	<input type="checkbox"/>	Set
None	None	<input type="checkbox"/>	<input type="checkbox"/>	Set
None	None	<input type="checkbox"/>	<input type="checkbox"/>	Set
LPT1		<input type="checkbox"/>		Set
LPT2		<input type="checkbox"/>		Set
LPT3		<input type="checkbox"/>		Set

1. Click **Config | Configure Ports, Mode Control, Audio, Other ...**
2. Assign the radio to the virtual COM port you created for CAT in Router's Ports tab.
3. Check CW/Other and Digital for the port you created for CW and PTT. The same port must be used for both CW/PTT and Digital.

4. On the radio port, click **Set** and set proper communication parameters for your transceiver.
5. **Uncheck** "Enable Hardware & Software PTT"
6. **DO NOT** check any of the "PTT via Radio Command" options.

Com4

Speed: 19200, Parity: N, DataBits: 8, Stop Bits: 1

DTR (pin 4): Always Off, RTS (pin 7): Always Off, Icom Code (hex): 58, Radio Nr: 1

Enable Both Hardware & Software

Allow ext interrupts

PTT via Radio Command Digital Mode

PTT via Radio Command SSB Mode

PTT via Radio Command CW Mode

FootSwitch (pin 6): None

Suggested Icom Settings:  
 9600 - 19200, N, 8, 1, Always Off, Always Off, Icom Hex Code  
 DTR, RTS should be Always On with a COM port powered interface.  
 Set the radio to the same speed or auto-baud.  
 Set the radio CI-V Transceive option to OFF.

OK Cancel

Com5

DTR (pin 4): CW, RTS (pin 7): PTT, Radio Nr: 1

PTT Delay (msec): 30, Dig Wnd Nr: 1

Allow ext interrupts

WinKey

Two Radio Protocol: None, FootSwitch (pin 6): None

OK Cancel

7. Click Set on the CW/Other and Digital Port
8. Set RTS (pin 7) to PTT.
9. Set DTR (Pin 4) to CW.

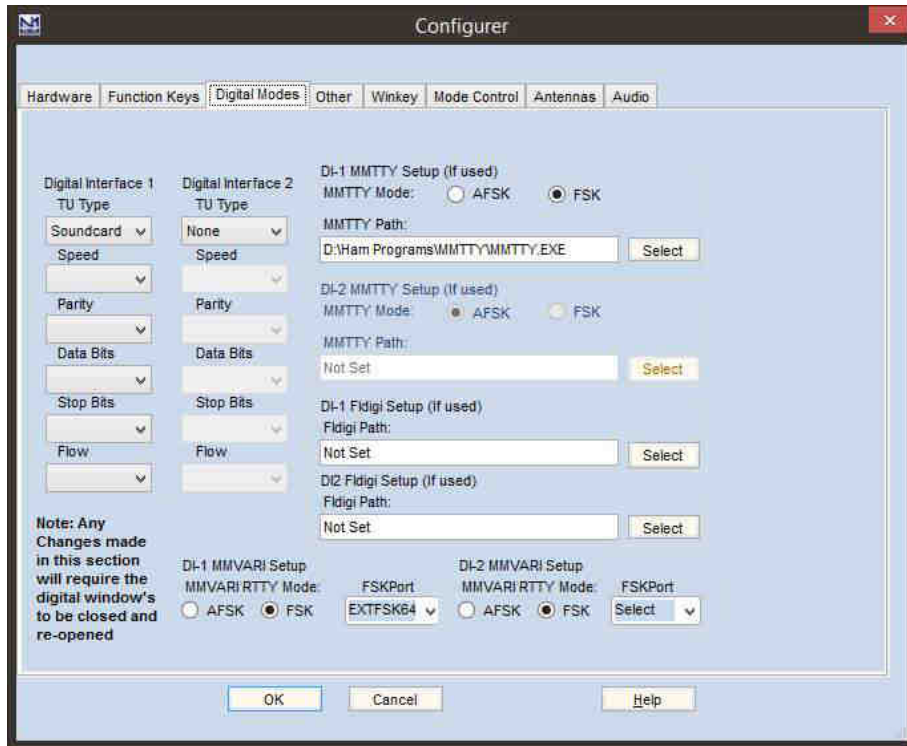
**Note:** USB Interface III does not support a sub-receiver/SO2V operation or DVK.

10. Click OK to close the N1MM Logger Hardware configuration dialog.

## MMTTY FSK Setup:

N1MM Logger supports the MMTTY Engine, MMVARI, 2-Tone and/or an external TNC for RTTY contesting. This configuration is based on using MMTTY in FSK mode.

FSK requires use of a digital port. Be sure you have defined Digital port in the N1MM "Hardware" tab.



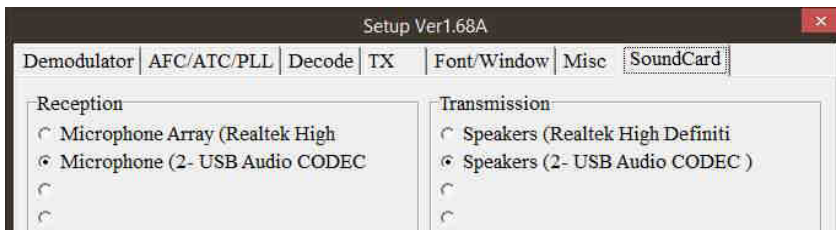
1. Install MMTTY on your computer if it is not already installed.
2. Select the **Digital Modes** tab in Configure Ports, Mode Control, Audio, Other ....
3. Set TU Type to Soundcard
4. Select FSK as the MMTTY mode for DI-1.
5. Enter the path to MMTTY.
6. Open the **Mode Control** tab

7. Select the method to determine which digital mode to log.
8. Set the appropriate RTTY and PSK modes for your transceiver.



**Note:** See the N1MM Logger Help files for the supported RTTY and PSK modes for your radios.

9. Click "OK" to save the settings and close the configuration.
10. Activate the [left] Entry Window (VFO A) and enter RTTY to open the Digital Interface.
11. If this is the first time you have used the Digital Interface, select **Interface | MMTTY** to activate the MMTTY interface.



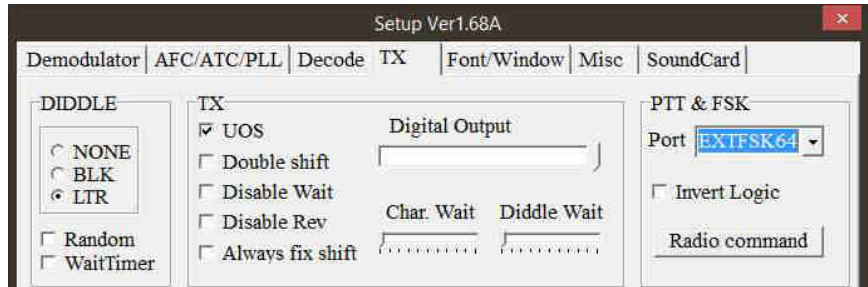
12. In the Digital Interface, Click **Setup | Setup MMTTY.**

13. Select the "SoundCard" tab.

14. Set Reception to "Microphone (USB Audio CODEC)"

15. Select the TX tab

16. Set PTT & FSK to EXTFSK64 if you are using 64 bit Windows and **at least** a quad core CPU. Otherwise, set PTT & FSK to EXTFSK.

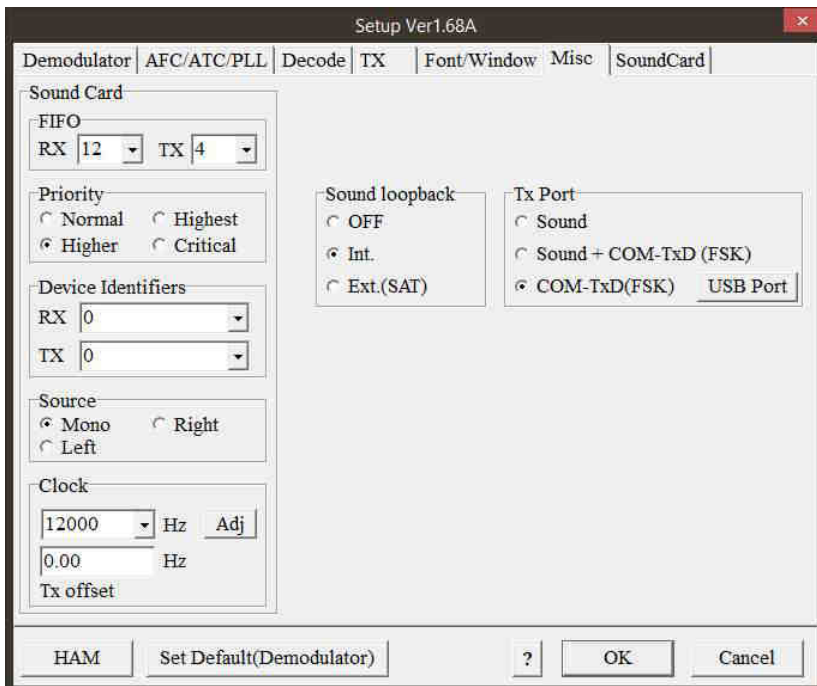


17. Select the Misc tab.

18. Select **Source = Mono**

19. Set Clock to 12000

20. Set Tx Port to COM-TxD(FSK)



21. Select the EXTFSK window from the Windows taskbar.

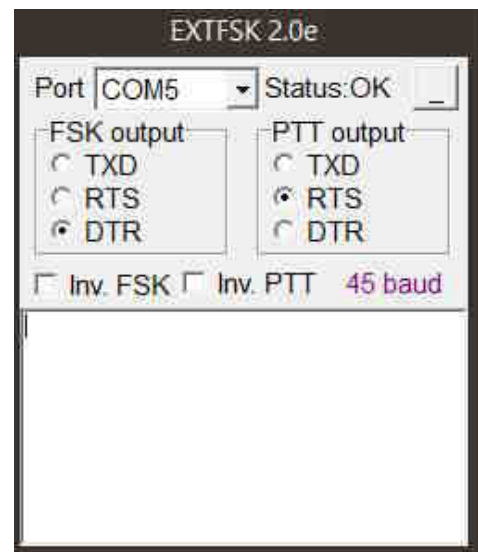
22. Select the Port you chose for CW and PTT in Router

23. Set FSK output to DTR

24. Set PTT output to RTS

25. Return the EXTFSK window to the taskbar.

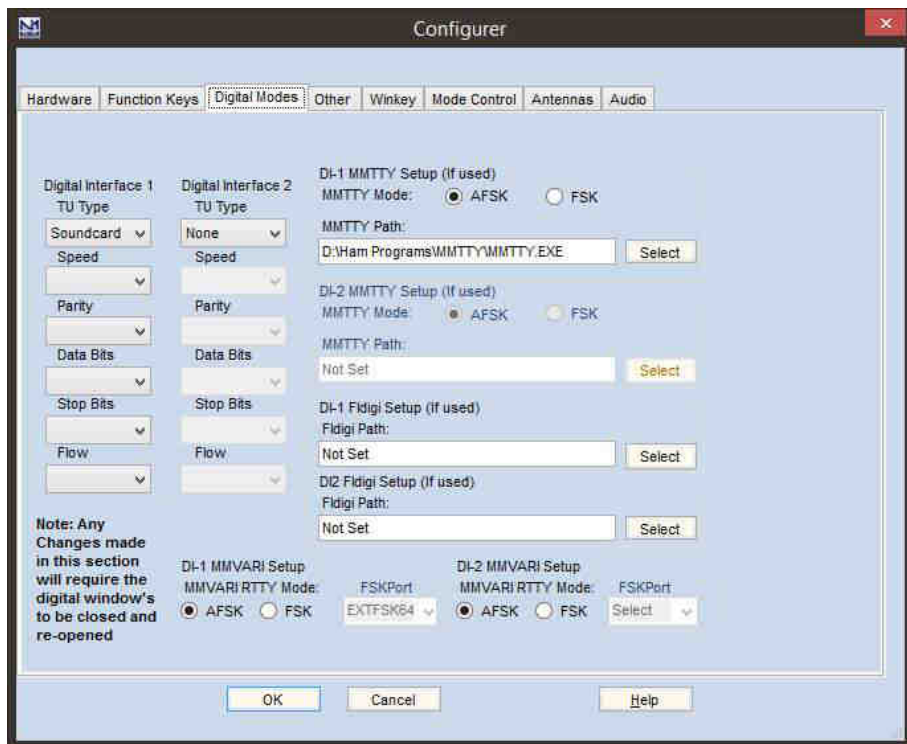
26. Click "OK" to close the MMTTY Set-up



## MMTTY AFSK Setup:

N1MM Logger supports the MMTTY Engine, MMVARI, 2-Tone and/or an external TNC for RTTY contesting. This configuration is based on using MMTTY in AFSK mode.

AFSK does not require a digital port. If you will be using only AFSK and PSK, it is not necessary to define "Digital" ports on the N1MM "Hardware" tab.



1. Install MMTTY if you have not already done so.
2. Select the **Digital Modes** tab in Configure Ports, Mode Control, Audio, Other...
3. Set the TU Type to Soundcard
4. select AFSK as the MMTTY mode for DI-1.
5. Enter the path to for MMTTY.
6. Open the **Mode Control** tab

7. Select the method to determine the mode recorded in the log.

8. Set the appropriate RTTY and PSK modes for your transceiver.

**Note:** See the N1MM Logger Plus Help files for the supported RTTY and PSK modes for your transceiver.

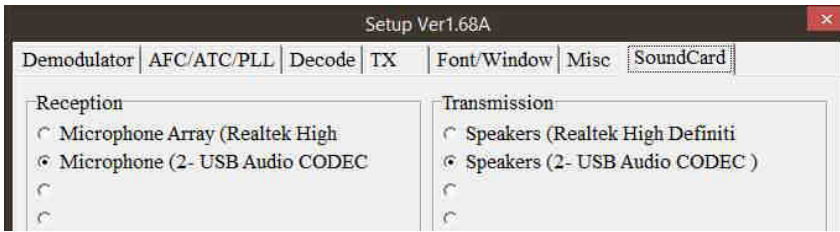


9. Click "OK" to save the settings and close the configuration.

10. Activate the [left] Entry Window (VFO A) and enter RTTY to open the Digital Interface.

11. Click **Setup | Settings** and select MMTTY as the Default RTTY Interface and MMVARI as the Default PSK Interface.

12. Select **Control Menus** as the MMTTY Window Layout



13. In the Digital Interface, Click **Setup | Setup MMTTY.**

14. Select the "SoundCard" tab.

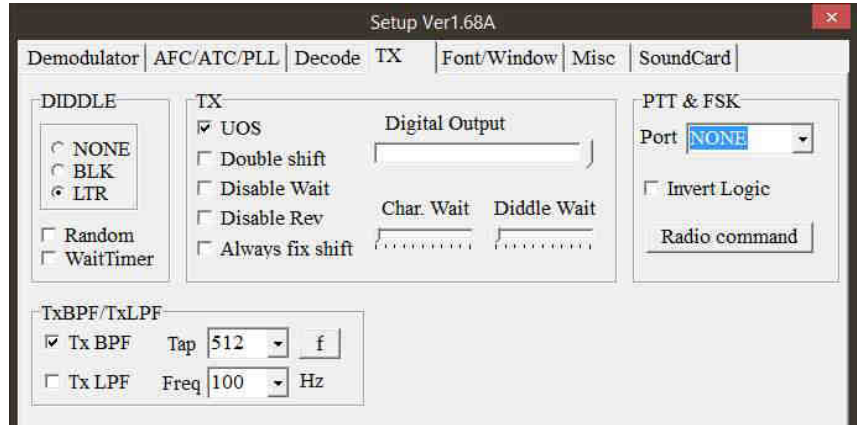
15. Set Reception to "Microhone (USB Audio CODEC)"

16. Set Transmission to "Speakers (USB Audio CODEC)"

17. Select the TX tab

18. Set PTT & FSK to None.

19. Check Tx BPF, set TAP to 512 and Freq to 100 Hz to filter the transmitted audio and minimize QRM.



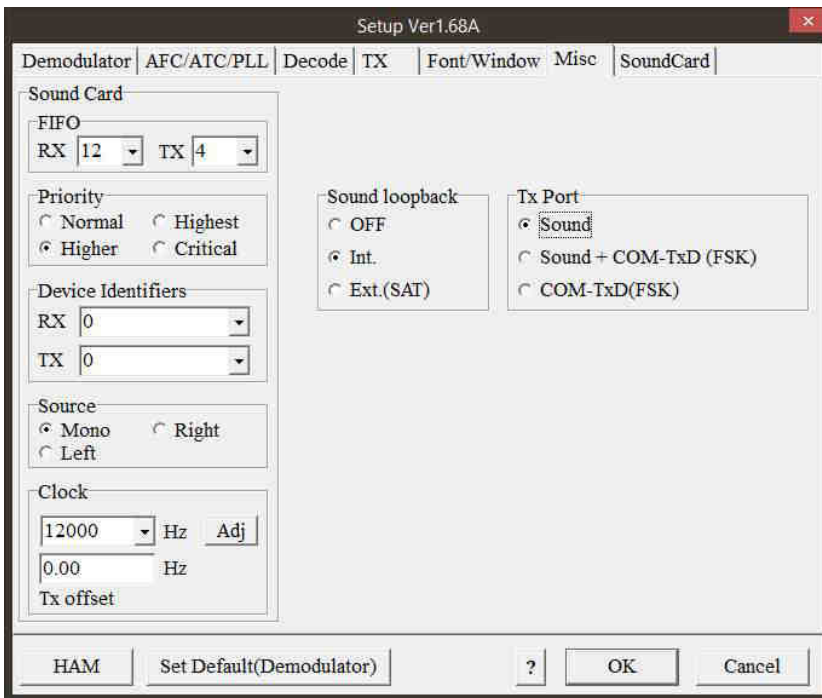
20. Select the Misc Tab

21. Select **Source = Mono**

22. Set Clock = 12000 Hz

23. Set Tx Port to **Sound.**

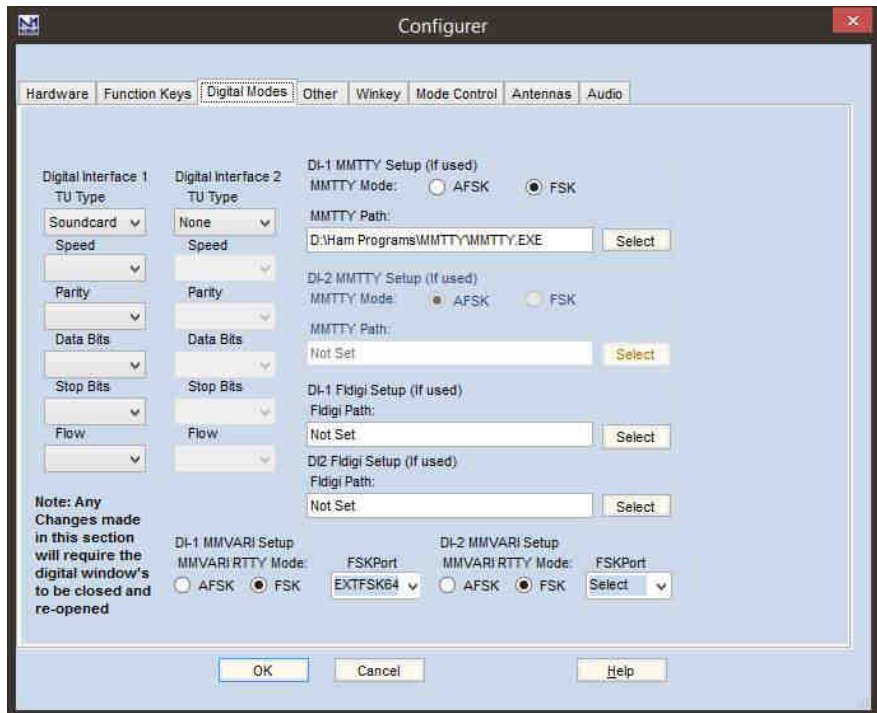
24. Click "OK" to close MMTTY Set-up



## MMVARI with FSK:

N1MM Logger supports the MMTTY Engine, MMVARI, 2-Tone, and/or an external TNC for RTTY contesting. This configuration uses MMVARI for **FSK RTTY** and PSK.

FSK requires use of a digital port. Be sure you have defined Digital port in the N1MM "Hardware" tab.



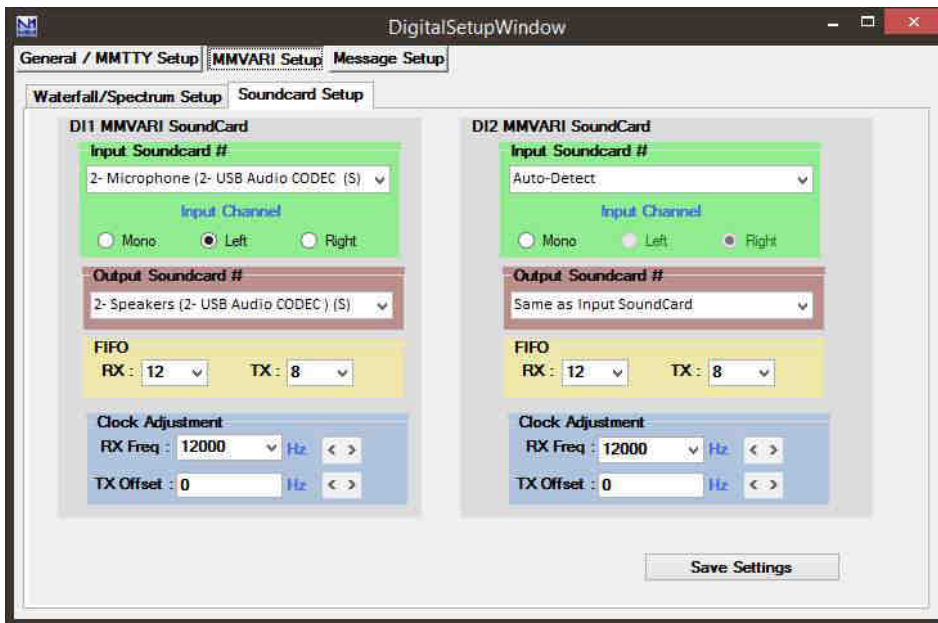
1. Select the **Digital Modes** tab in Configure Ports, Mode Control, Audio, Other...
2. Set the TU Type to Soundcard
3. select FSK as the MMVARI RTTY mode for DI-1.
4. Set FSKPort to EXTFSK64 if you are using 64 bit Windows and **at least** a quad core CPU. Otherwise, set FSKPort to EXTFSK.

5. Open the **Mode Control** tab
6. Select the method to determine the mode recorded in the log.
7. Set the appropriate RTTY and PSK modes for your transceiver.



**Note:** See the N1MM Logger Plus Help files for the supported RTTY and PSK modes for your transceiver.

8. Set the method to determine the mode recorded in the log.
9. Click OK to Save and Close Configure Ports, Mode Control, Audio, Other...
10. Activate the left Entry Window (Radio 1) and enter PSK.
11. Click **Setup | Settings** and select MMVARI as the Default RTTY Interface and MMVARI as the Default PSK Interface.
12. Select **MMVARI Setup**.



13. Select **Soundcard Setup**.

14. Set Input Soundcard # to "Microphone (USB Audio CODEC)" and select the **Left** Input Channel.

15. Set Output Soundcard # to "Speakers (USB Audio CODEC)"

16. Set Clock Adjustment to 12000.

17. Click **Save Settings**.

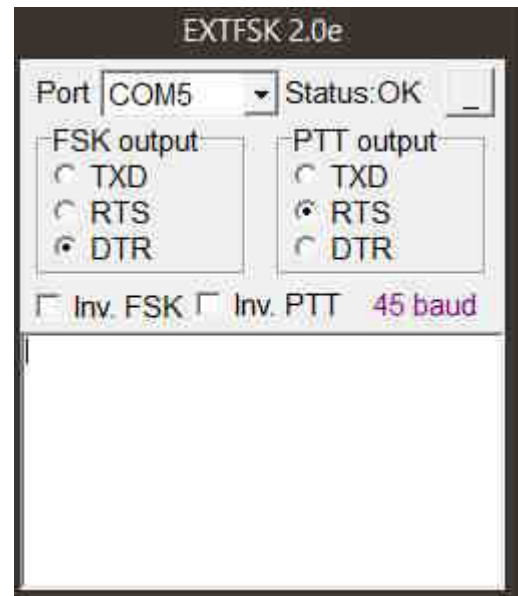
18. Select the EXTFSK window from the Windows taskbar.

19. Select the Port you chose for CW and PTT in Router

20. Set FSK output to DTR

21. Set PTT output to RTS

22. Return the EXTFSK window to the taskbar.

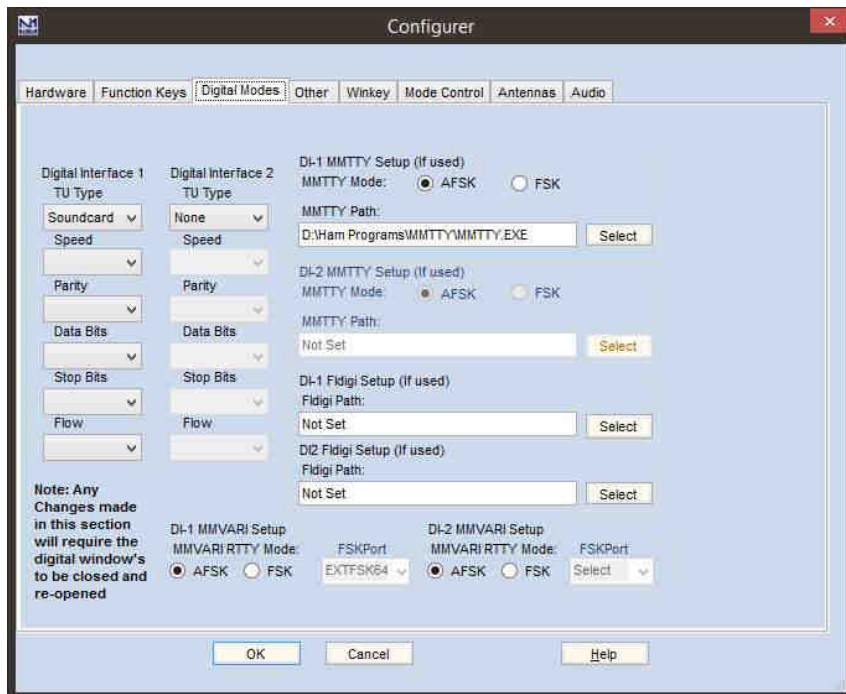




## MMVARI with AFSK:

N1MM Logger supports the MMTTY Engine, MMVARI and/or an external TNC for RTTY contesting. This configuration is for **AFSK RTTY** and PSK.

AFSK and PSK do not require the use of a digital port. Do not configure a Digital Port in N1MM Logger.



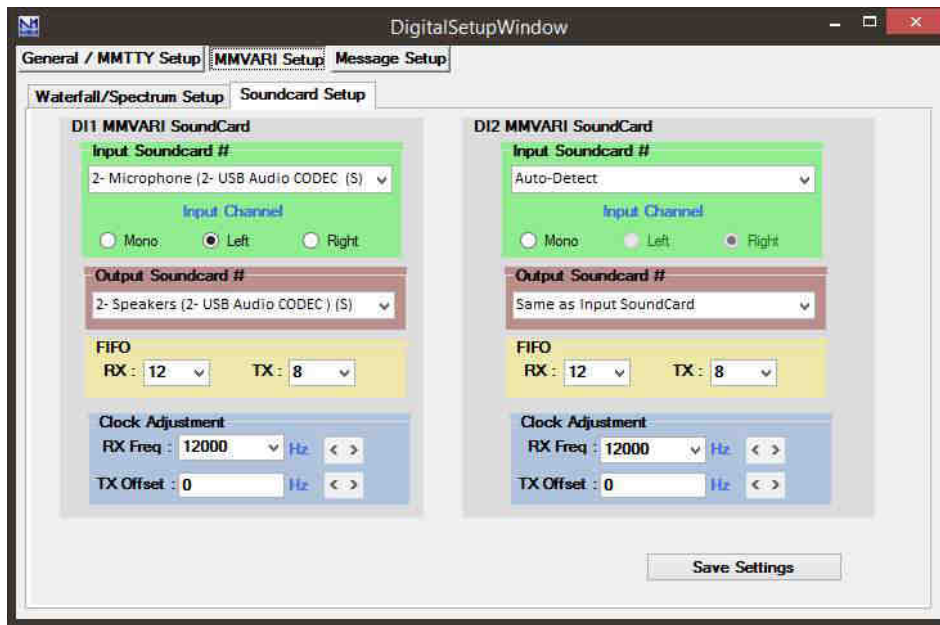
1. Select the **Digital Modes** tab in Configure Ports, Mode Control, Audio, Other...
2. Set the TU Type to Soundcard
3. select AFSK as the MMVARI RTTY mode in DI-1 MMVARI Setup.
4. Open the **Mode Control** tab

5. Set the method to determine the mode recorded in the log.
6. Set the appropriate AFSK and PSK modes for your transceiver.

**Note:** See the N1MM Logger Plus Help files for the supported RTTY (AFSK) and PSK modes for your transceiver.



7. Click OK to Save and Close the Mode Control Tab.
8. Activate the left Entry Window (Radio 1) and enter PSK.
9. Click **Setup | Settings**. Select MMVARI as the Default RTTY Interface and Default PSK Interface.
10. Select **MMVARI Setup**.



11. Select **Soundcard Setup**.

12. Set Input Soundcard # to "Microphone (USB Audio CODEC)" and select the **Left** Input Channel.

13. Set Output Soundcard # to "Speakers (USB Audio CODEC)"

14. Set Clock Adjustment to 12000 Hz.

15. Click **Save Settings**.