MK2R/MK2R+ and N1MM Logger Setup

"Classic" SO2R

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 virtual COM ports for control of both radios. Click the **Set** button for each radio and select the radio on that port from the drop down box. Uncheck **Disable router queries** box.

2. Assign PTT to RTS on the same ports as you used for CAT.

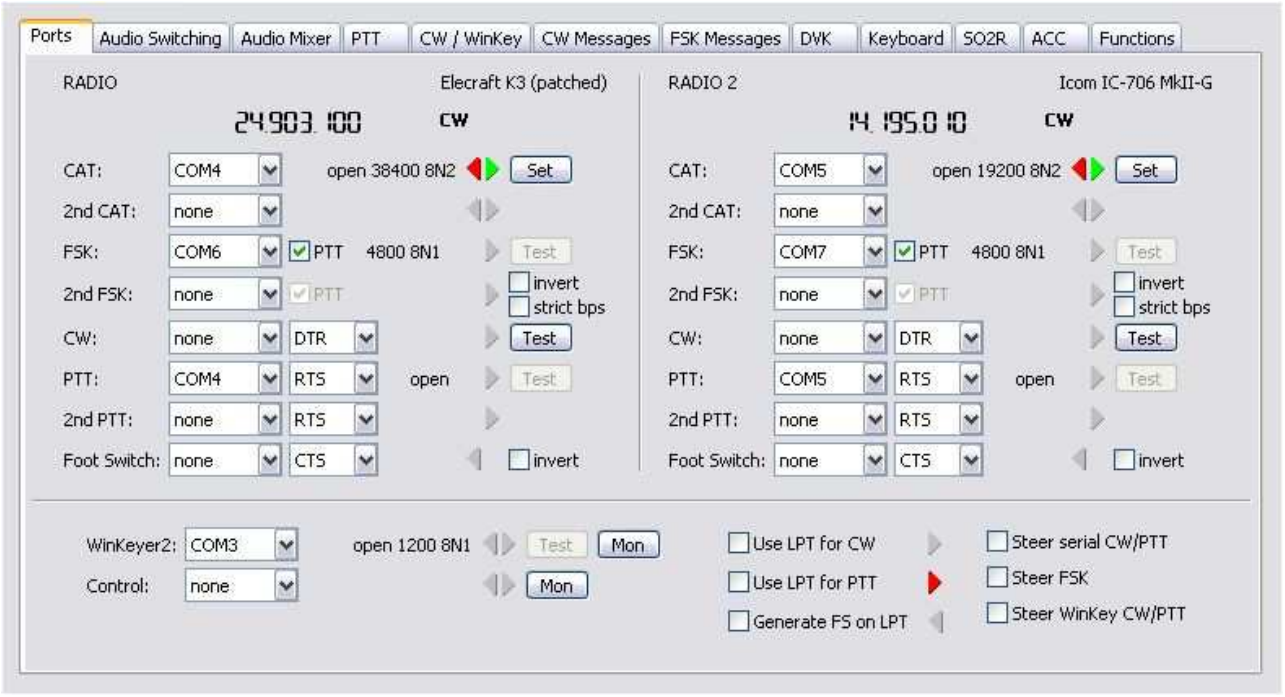
3. Assign ports for FSK and check the PTT box.

4. Assign a port for WinKey. Select the appropriate PTT output and QSK or PTT operation for each radio on Router's PTT tab.

5. If you prefer to use PC Generated CW on the LPT port check Use LPT for CW and Use LPT for PTT.

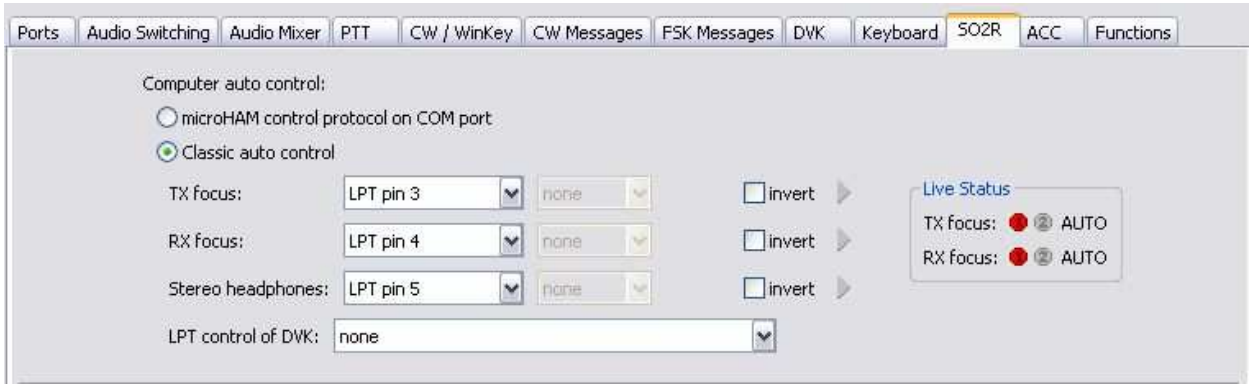
   Note: N1MM Logger does not support WinKey and PC Generated CW at the same time. Enabling WinKey will disable LPT CW and PTT.

6. Select the audio switching for *EACH* radio on the **Audio Switching** tab.
   CmCmA is recommended for **Voice** Modes.
   If you do not intend to change DVK messages "live," use ACmA.

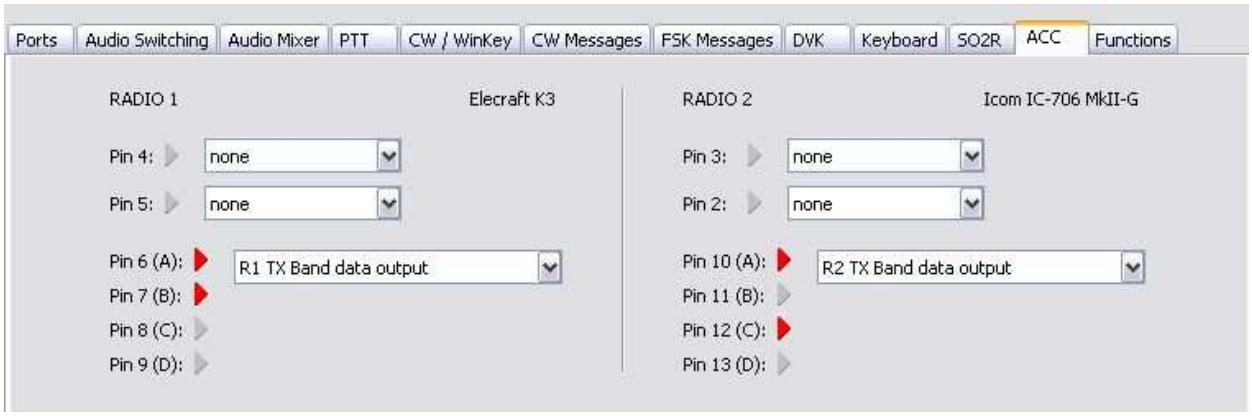


7. Select "Classic auto control" on the **SO2R** tab and assign the following controls:
   - **Pin 3** for **TX focus**
   - **Pin 4** for **RX focus**
   - **Pin 5** for **Stereo Headphones**

   These settings allow N1MM Logger to control both transmit and receive focus automatically. Stereo receive is commanded by the "`" (accent grave or unshifted tilde key) and the {STEREOON} and {STEREOOFF} macros.



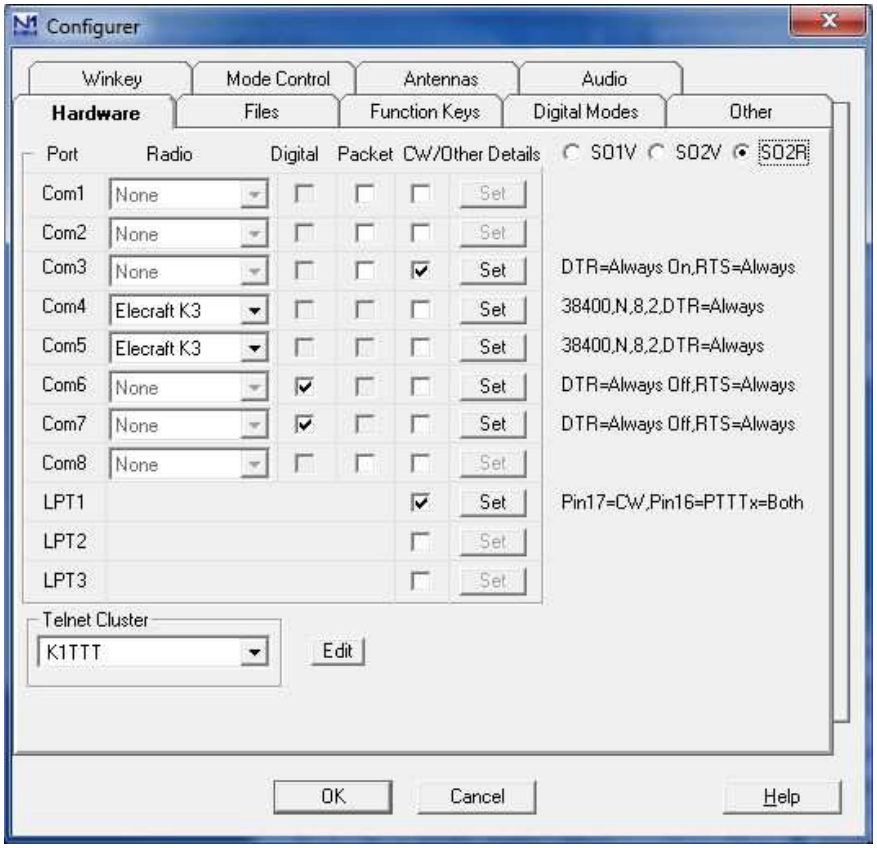
8. If desired, MK2R/MK2R+ can provide "Band Data" derived from the radio operating frequencies for use with bandpass filters. Set pins 6-9 to **R1 TX Band data output** and pins 10-13 to **R2 TX Band data output** on the ACC tab. The "Band Data" number can be configured in **Router | Options | Band Map.**



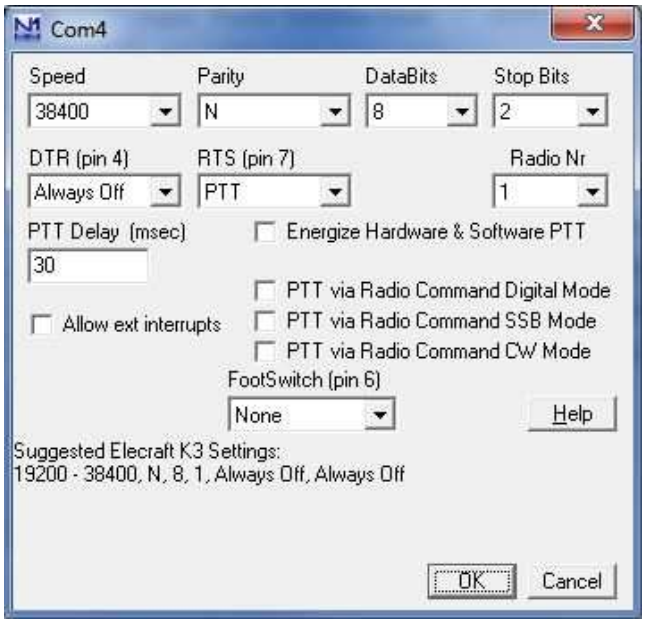
9. Save the settings to a preset by selecting menu **Preset | Save as**. Choose a position and name it N1MM.

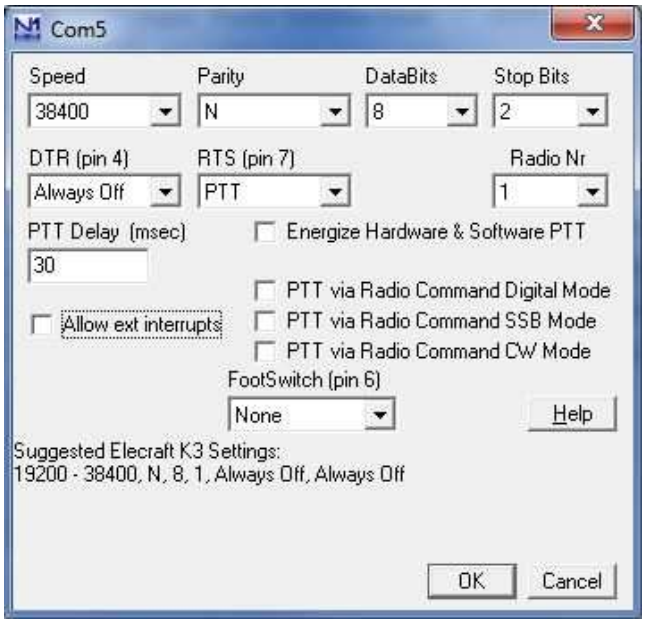
N1MM hardware setup:

1. Click Config | Configure Ports, Telent Addresses, Other ...
2. Assign each radio to the virtual COM port you used in Router's Ports tab



3. For each radio port click **Set** and configure the proper communication parameters.
4. For both radios, set RTS (pin 7) to PTT, DTR (pin 4) to Always Off, **Uncheck** "Energize Hardware & Software PTT" and **DO NOT** check any of the "PTT via Radio Command" options.



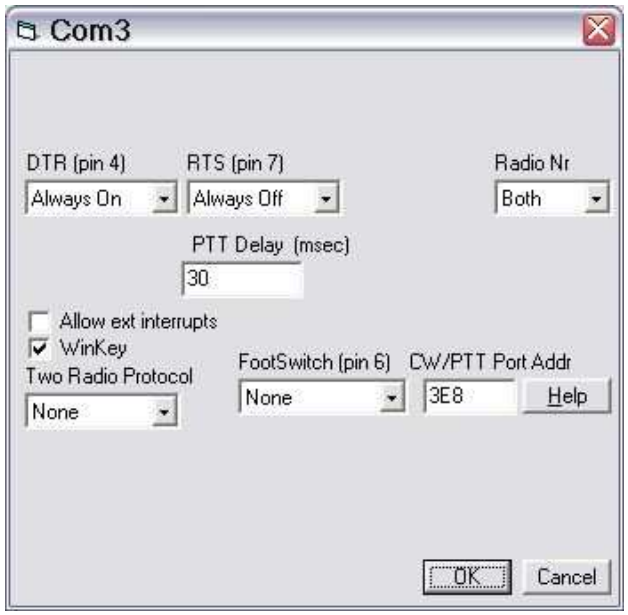


5. Configure the Digital ports taking care to associate each port with the correct Radio (Radio Nr) and Digital Interface (Dig Wind Nr).

6. Set DTR to "always Off" and set RTS (pin 7) to PTT. PTT will be available in all modes.

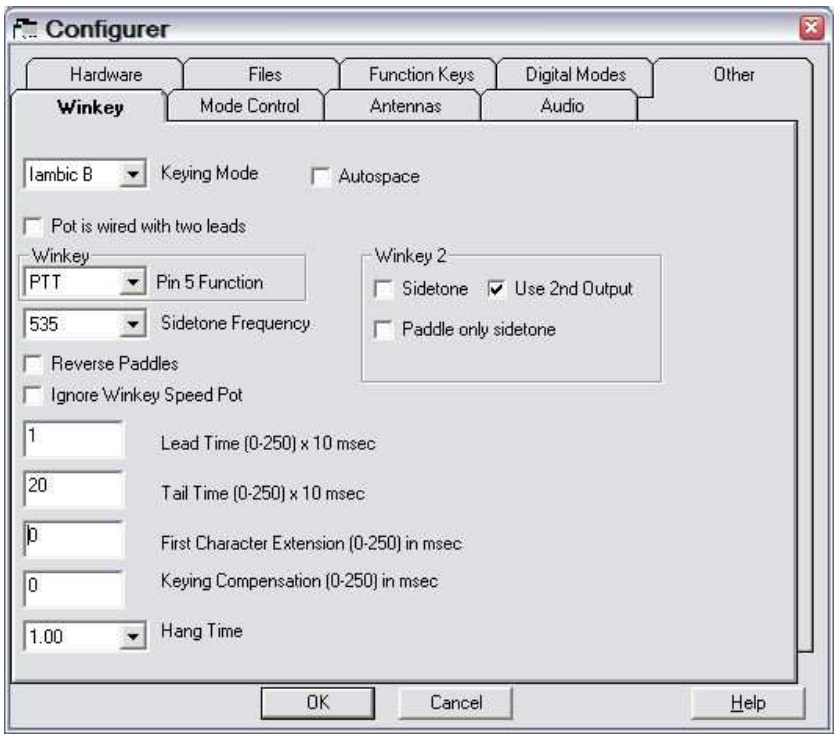
7. Assign a port for WinKey and set Radio Nr to **Both.**

   Note: Do not configure a WinKey port if you will be using computer generated CW from the LPT.



8. Check **CW/Other** for the LPT port you will be using for radio selection and click the **Set** button

9. Set the correct Port Addr and set Radio Nr to **Both.**



10. Configure WinKey with the N1MM WinKey tab.

11. Use 2nd Output should be checked

12. Pin 5 Function should be PTT unless you are using QSK

Note: Timing parameters are set on the CW/WinKey tab in Router. Router will override any settings made in N1MM Logger.

13. Configure Audio for "2 – Two Radio, No Sound Card SO2R"

14. Select "Speakers (USB Voice CODEC)" as the Output Device.

15. Select Microphone as the Port to Mute.

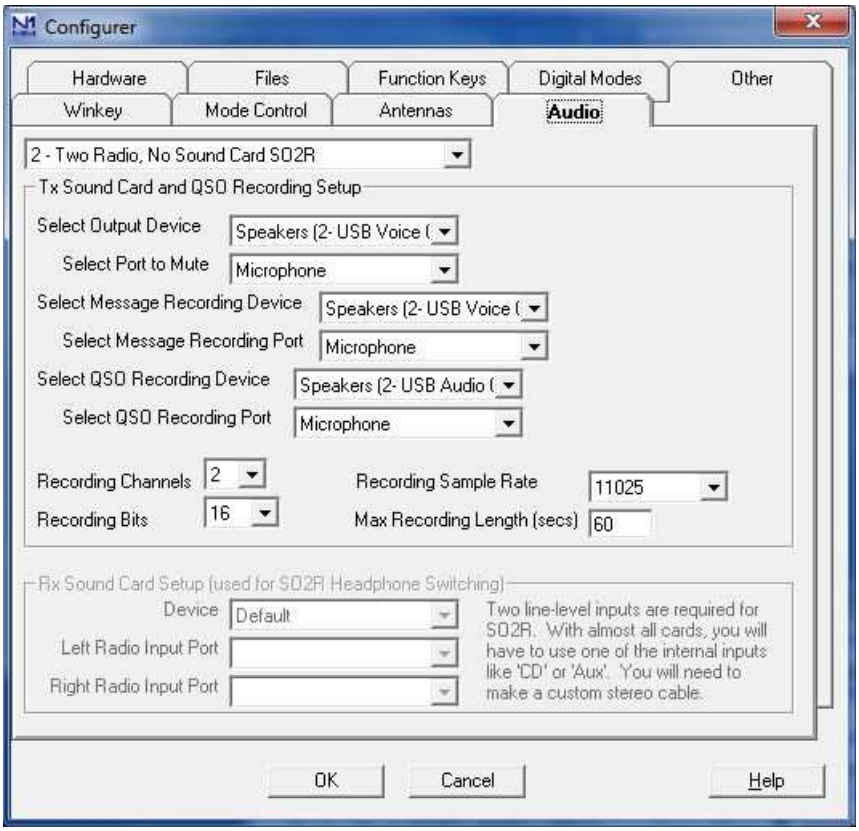
16. Select "Speakers (USB Voice CODEC)" as the Message Recording Device.

17. Select Microphone as the Message Recording Port.

18. Select "Speakers (USB Audio CODEC)" as the QSO Recording Device.

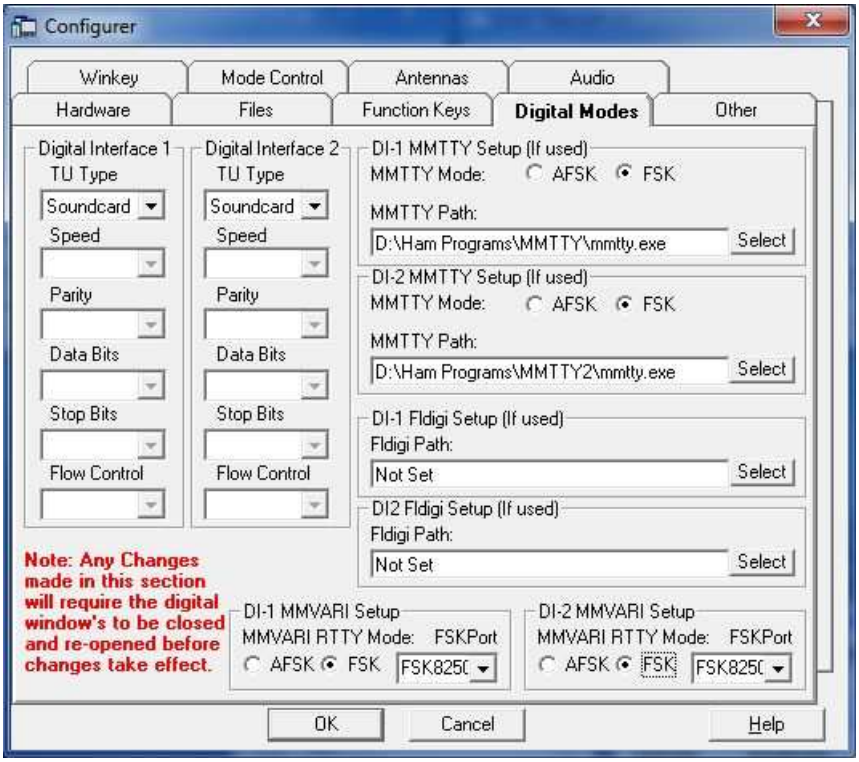
19. Select Microphone as the QSO Recording Port.

20. Set Recording channels to Two (2)



FSK with MMTTY:

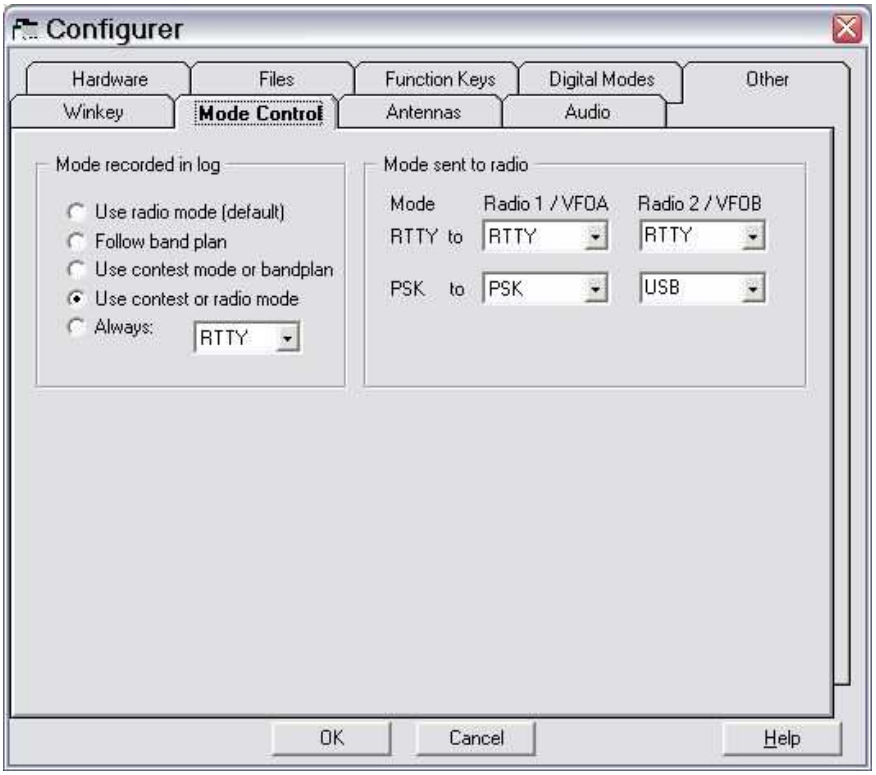
N1MM Logger supports the MMTTY Engine, MMVARI and/or an external TNC for RTTY contesting. This configuration is based on using MMTTY in FSK mode.



1. Install MMTTY in two *different* directories on your hard disk.
2. Select the **Digital Modes** tab in the N1MM Logger Configurer.
3. Set TU Type to Soundcard
4. Select FSK as the MMTTY mode for DI-1 and DI-2.
5. Enter the path to each MMTTY installation.

6. Open the **Mode Control** tab
7. Set the appropriate RTTY and PSK modes for each radio.

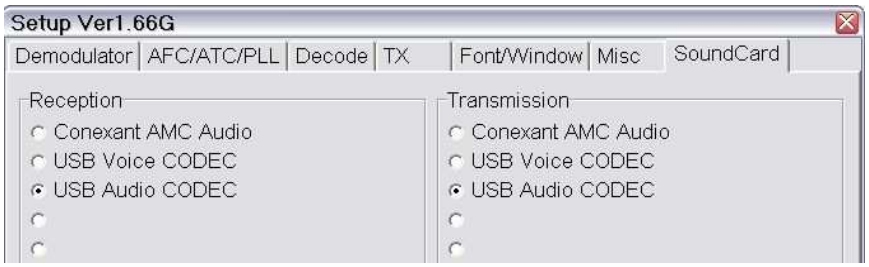
   Note: See the N1MM Logger Help files for the supported RTTY and PSK modes for your radios.
8. Set the method to determine the mode to log.
9. Click "OK" to save the settings and close the Configurer.



10. Activate the left Entry Window (Radio 1) and open the Digital Interface.

11. If this is the first time you have used the MMTTY interface, click on **Interface | MMTTY** to activate the MMTTY interface.

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



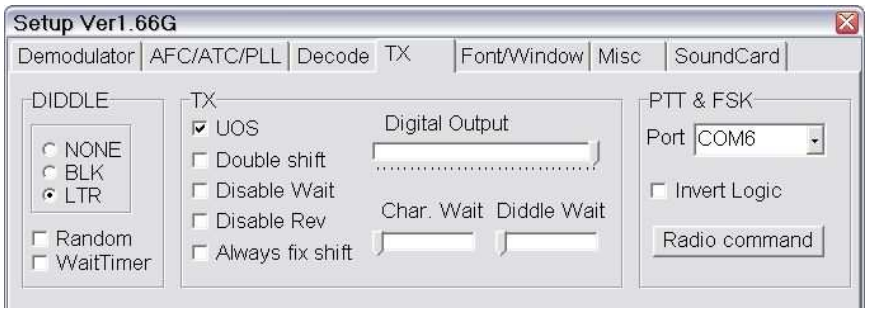
13. Select the "SoundCard" tab.

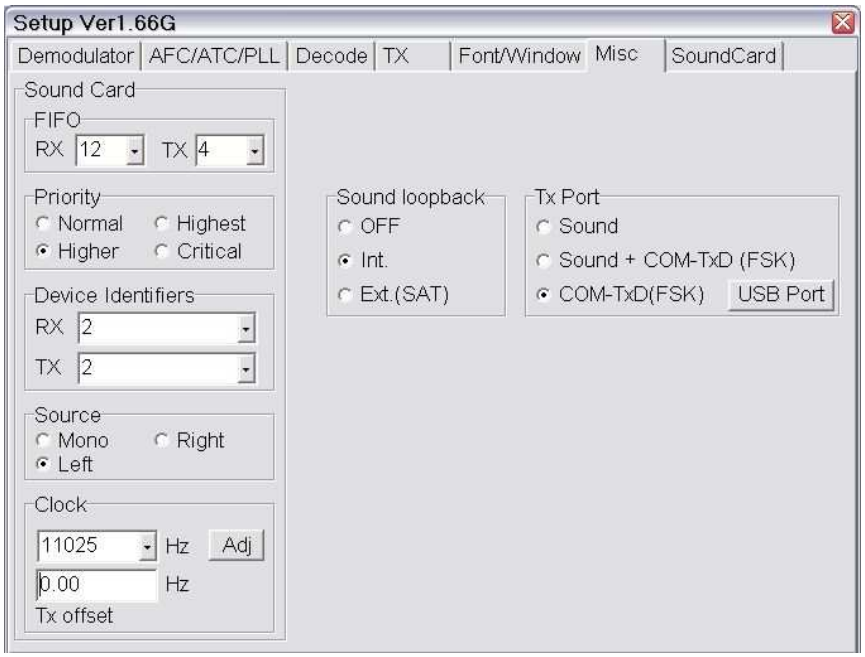
14. Set Reception and Transmission to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

15. Select the TX tab

16. Set PTT & FSK to the port used for Router's Radio 1 FSK port.

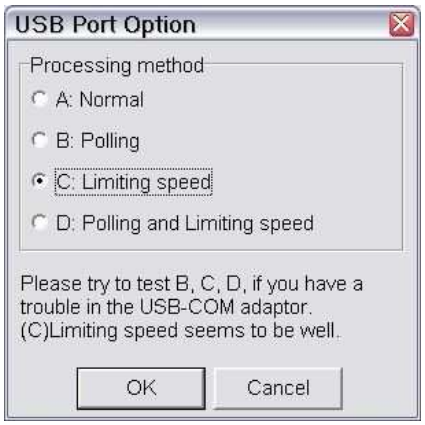
17. Select the Misc Tab





18. If the same sound card will be used with both radios, select **Source = Left**

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



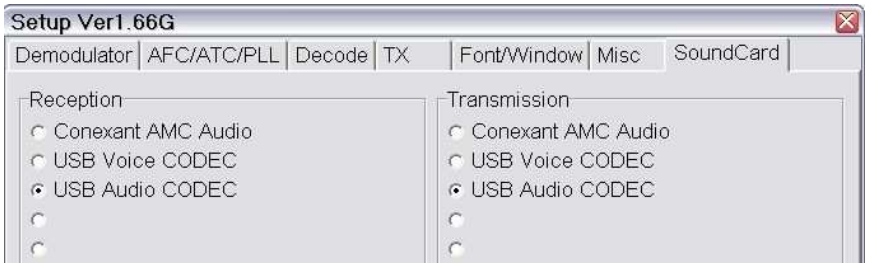
20. Click **USB port** button, choose **C: Limiting speed** and click OK

21. Click "OK" on the Misc tab to close the MMTTY Set-up for Radio 1

22. Activate the right Entry Window (Radio 2) and open the Digital Interface.

23. Click on **Interface | MMTTY** to activate the MMTTY interface.

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



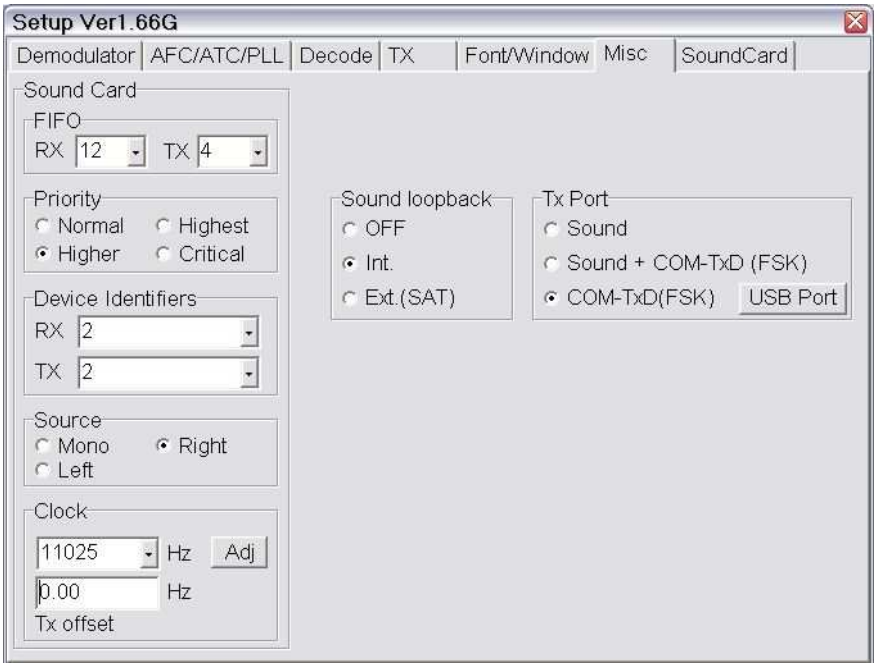
25. Select the "SoundCard" tab.

26. Set Reception and Transmission to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

27. Select the TX tab

28. Set PTT & FSK to the port used for Router's Radio 2 FSK port.

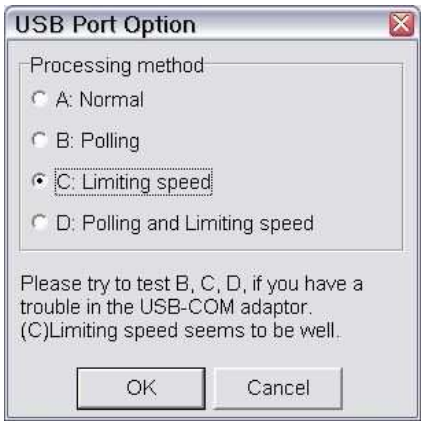
29. Select the Misc Tab



30. If the same sound card will be used with both radios, select **Source = Right**

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

32. Click **USB port** button, choose **C: Limiting speed** and click OK

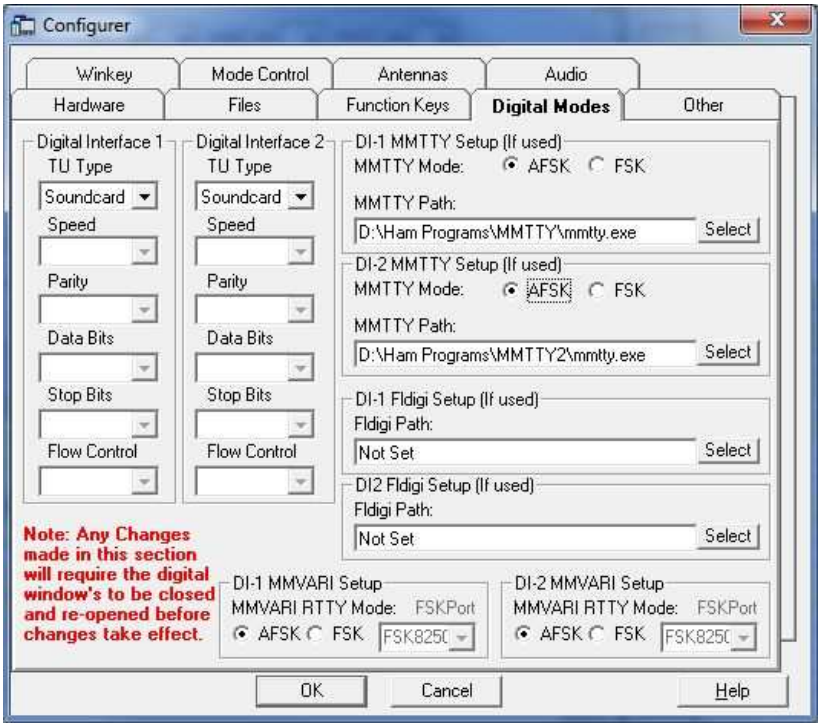


33. Click "OK" on the Misc tab to close the MMTTY Set-up for Radio 1

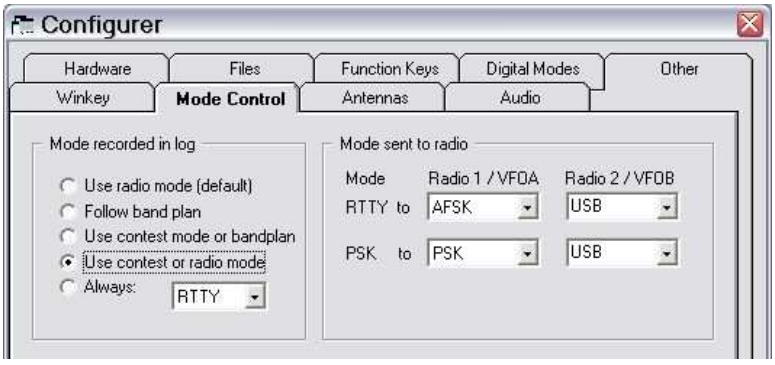
AFSK with MMTTY:

N1MM Logger supports the MMTTY Engine, MMVARI 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 for each radio. If you will be using only AFSK and PSK, it is not necessary to define "Digital" ports on the N1MM "Hardware" tab or FSK ports in Router.

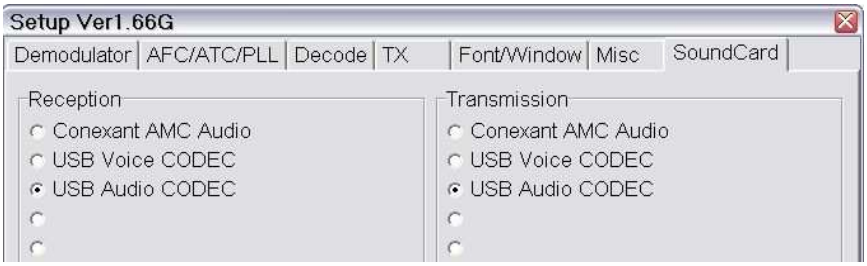


1. Install MMTTY in two *different* directories on your hard disk.
2. Select the **Digital Modes** tab in the N1MM Logger Configurer.
3. Set the TU Type to Soundcard
4. select AFSK as the MMTTY mode for both DI-1 and DI-2.
5. Enter the path to each copy of MMTTY.
6. Open the **Mode Control** tab



7. Set the appropriate RTTY and PSK modes for each radio.

   Note: See the N1MM Logger Help files for the supported RTTY and PSK modes for your radios.
8. Set the method to determine the mode recorded in the log.
9. Save and Close the Configurer.
10. Activate the left Entry Window (Radio 1) and open the Digital Interface.
11. If this is the first time you have used the MMTTY interface, click on **Interface | MMTTY** to activate the MMTTY interface.
12. In the Digital Interface, Click **Setup | Setup MMTTY.**



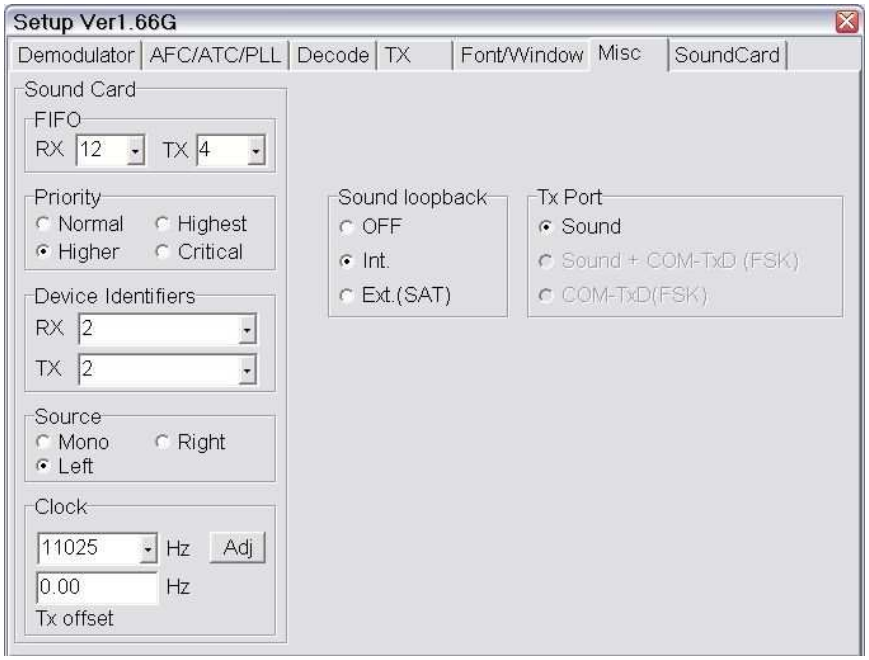
13. Select the "SoundCard" tab.
14. Set Reception and Transmission to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

15. Select the Misc Tab

16. Select **Source = Left** if using the same sound card for both radios

17. Set Tx Port to **Sound**.

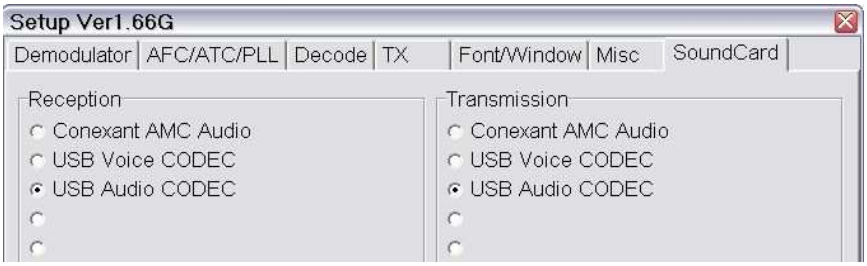
18. Click "OK" to close MMTTY Set-up for Radio 1



19. Activate the right Entry Window (Radio 2) and open the Digital Interface.

20. Click on **Interface | MMTTY** to activate the MMTTY interface.

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



22. Select the "SoundCard" tab.

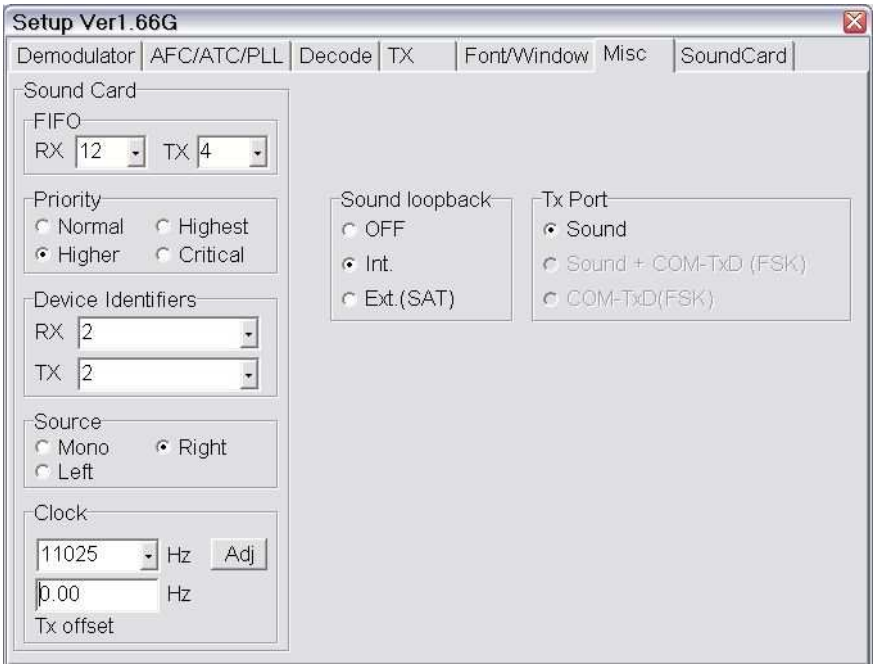
23. Set Reception and Transmission to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

24. Select the Misc Tab

25. Select **Source = Right** if using the same sound card for both radios

26. Set Tx Port to **Sound**

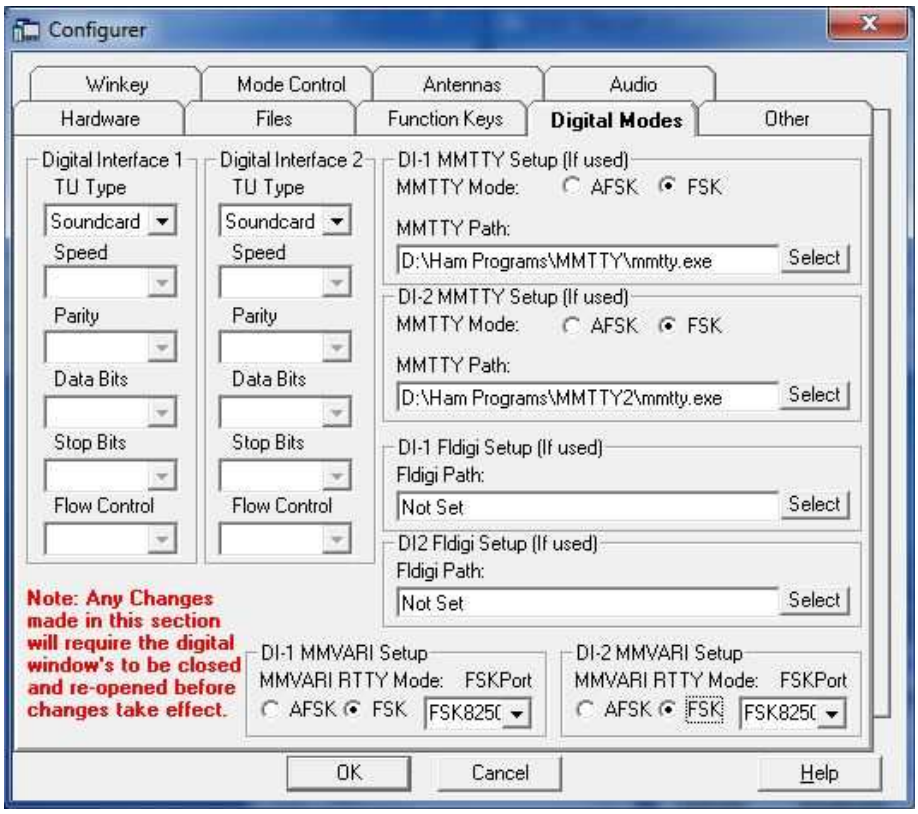
27. Click "OK" to close MMTTY Setup for Radio 2.



FSK/PSK31 with MMVARI:

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

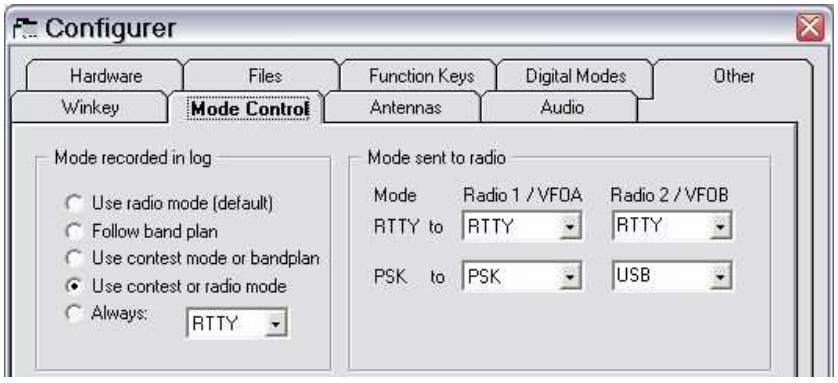
FSK requires use of a digital port for each radio. Be sure you have defined Digital ports for each radio in the N1MM "Hardware" tab and FSK ports in Router.



1. Select the **Digital Modes** tab in the N1MM Logger Configurer.
2. Set the TU Type to Soundcard
3. select FSK as the MMTTY RTTY mode for both DI-1 and DI-2.
4. Set the FSK Port to FSK8250 for both DI-1 and DI-2
5. Open the **Mode Control** tab

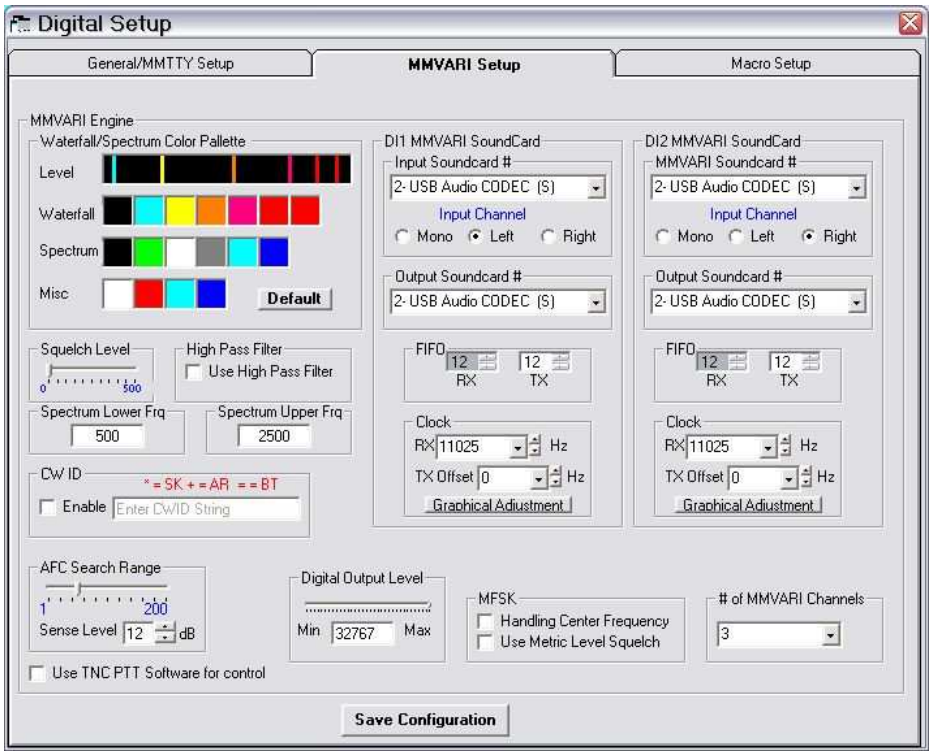
6. Set the appropriate RTTY and PSK modes for each radio.

   Note: See the N1MM Logger Help files for the supported RTTY and PSK modes for your radios.
7. Set the method to determine the mode recorded in the log.
8. Save and Close the N1MM Configurer.



9. Activate the left Entry Window (Radio 1) and enter PSK.

10. Click **Setup | Settings.** Select MMVARI as the Preferred RTTY Interface and Preferred PSK Interface.



11. Select **MMVARI Setup.**

12. Set DI1 MMVARI Sound Card Input Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R and select the **Left** input.

13. Set DI1 MMVARI Sound Card Output Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

14. Set DI2 MMVARI Sound Card Input Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R and select the **RIGHT** input.

15. Set DI1 MMVARI Sound Card Output Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

16. Save the configuration.

17. Select RTTY-L mode in MMVARI in DI-1

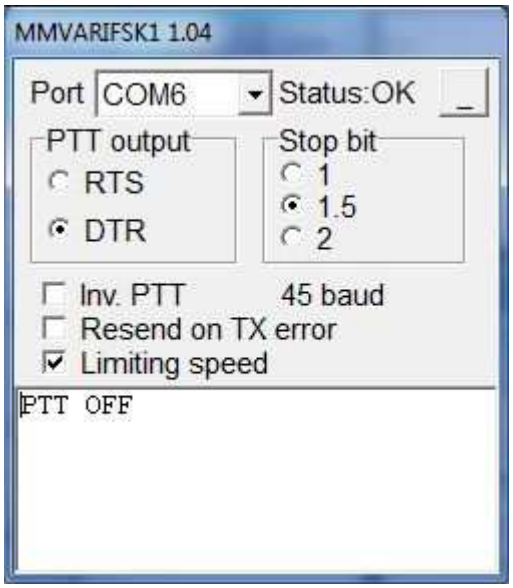
18. Select the MMVARIFSK1 window from the Windows Task Bar.

19. Set Port to the port you chose for Radio 1 FSK in Router

20. Set PTT output to RTS

21. Check Limiting Speed

22. Return the MMVARIFSK1 window to the Task Bar.



23. Select DI-2 (Open the second DI if it is not already open)

24. Select **Interface | MMVARI** if MMVARI is not already the active interface

25. Select RTTY-L mode in MMVARI.

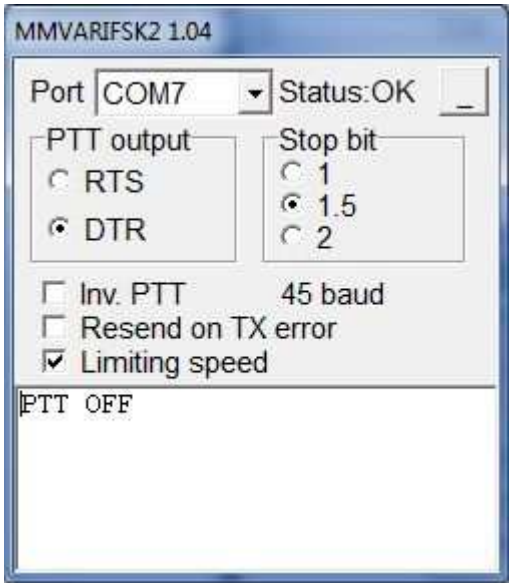
26. Select the MMVARIFSK2 window from the Windows Task Bar.

27. Set Port to the port you chose for Radio 2 FSK in Router.

28. Set PTT output to RTS

29. Check Limiting Speed

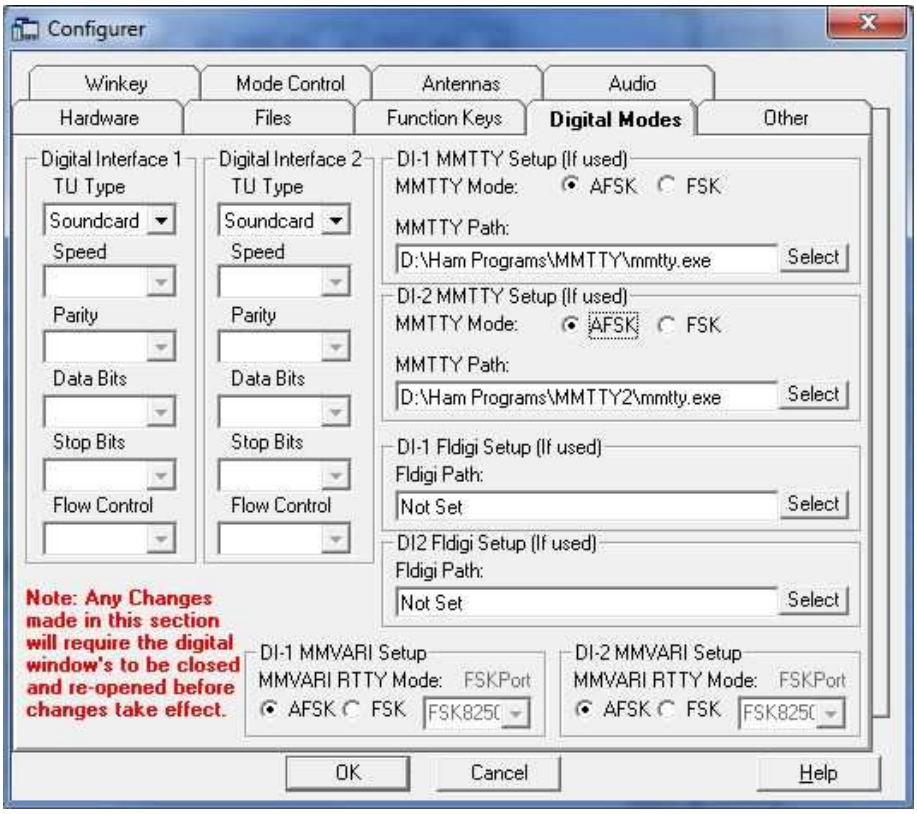
30. Return the MMVARIFSK2 window to the Task Bar.



AFSK/PSK31 with MMVARI:

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

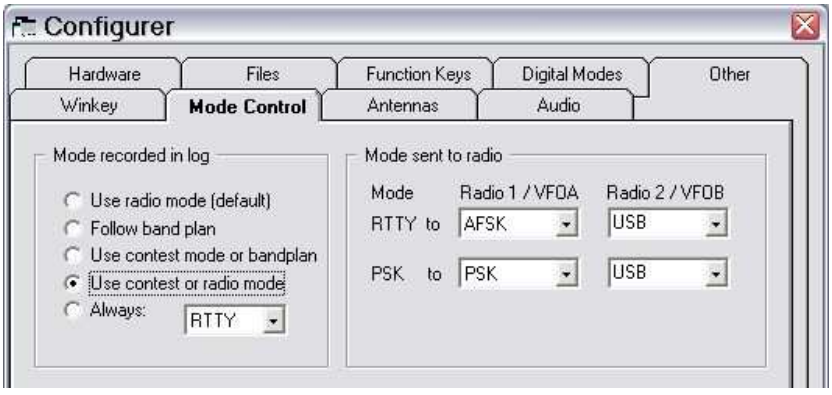
AFSK and PSK do not require the use of a digital port for each radio. Do not configure a Digital Port in N1MM Logger or a FSK Port in Router.



1. Select the **Digital Modes** tab in the N1MM Logger Configurer.
2. Set the TU Type to Soundcard
3. select AFSK as the MMVARI RTTY mode for both DI-1 and DI-2.
4. Open the **Mode Control** tab

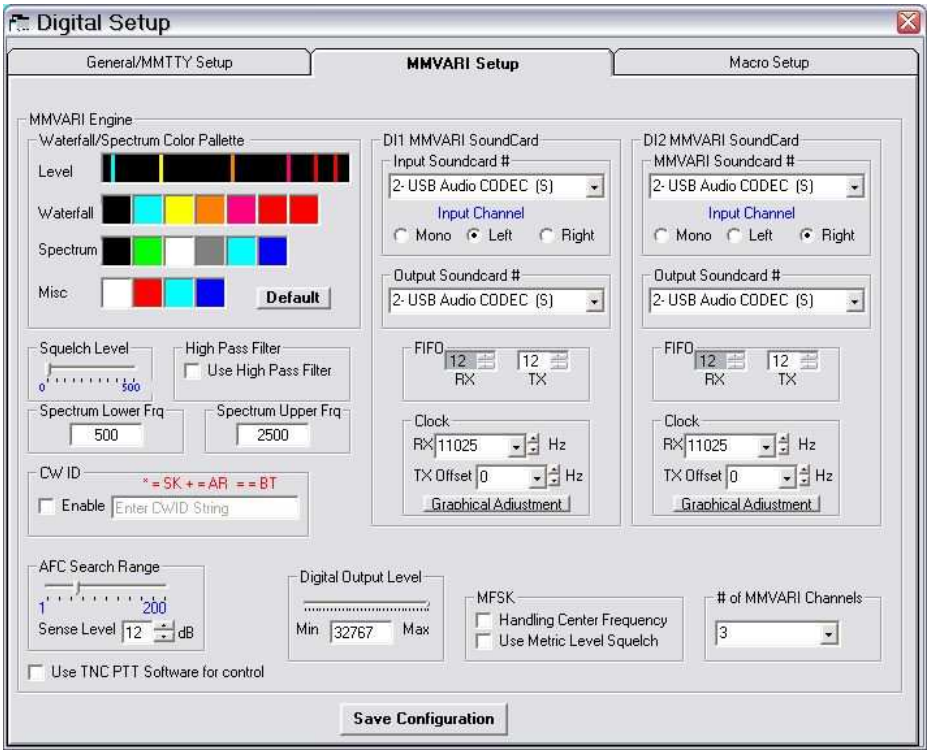
5. Set the appropriate RTTY and PSK modes for each radio.

   Note: See the N1MM Logger Help files for the supported RTTY (AFSK) and PSK modes for your radios.
6. Set the method to determine the mode recorded in the log.
7. Save and Close the N1MM Configurer.



8. Activate the left Entry Window (Radio 1) and enter PSK.

9. Click **Setup | Settings.** Select MMVARI as the Preferred RTTY Interface and Preferred PSK Interface.



10. Select **MMVARI Setup.**

11. Set DI1 MMVARI Sound Card Input Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R and select the **Left** input.

12. Set DI1 MMVARI Sound Card Output Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

13. Set DI2 MMVARI Sound Card Input Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R and select the **RIGHT** input.

14. Set DI1 MMVARI Sound Card Output Soundcard # to USB Audio CODEC for MK2R+ or the sound card connected to the "SC1" jacks for MK2R.

15. Save the configuration.