

Demystifying N1MM+ : RTTY

- Simplest RTTY Decoder to set up is 2Tone. It outperforms MMTTY.
- Make a number of folders **not** in any of the Program Files folders. I suggest at least 4 folders, e.g.
- Copy 2Tone.exe to each folder having read the .txt file in the zip file
- Start N1MM!

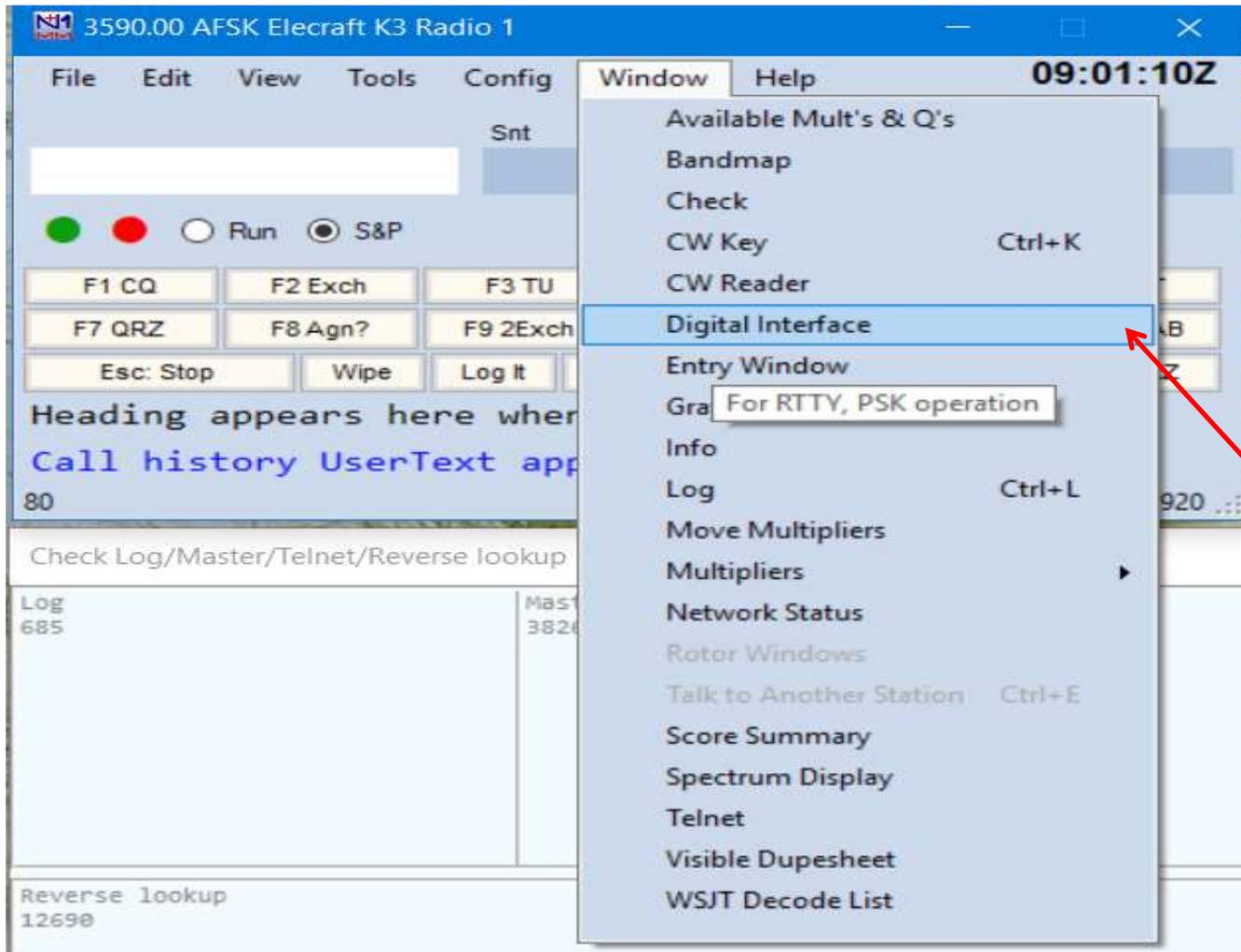


Demystifying N1MM+ : Configure N1MM

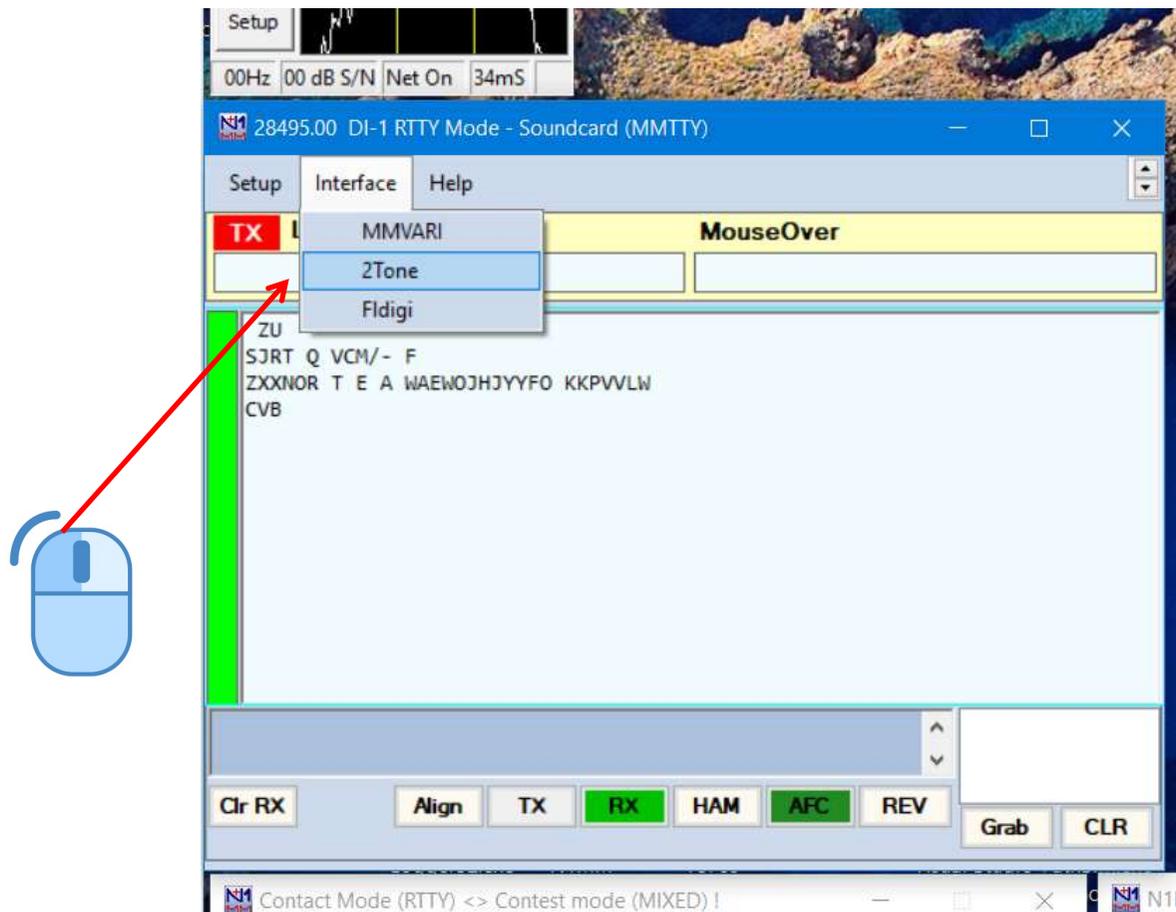
The screenshot shows the 'Configurer' application window with the 'Digital Modes' tab selected. The interface is divided into several sections for configuring digital interfaces. On the left, there are two columns for 'Digital Interface 1' and 'Digital Interface 2', each with dropdown menus for 'TU Type', 'Speed', 'Parity', 'Data Bits', 'Stop Bits', and 'Flow'. The 'TU Type' is set to 'Soundcard'. In the center-right, there are sections for 'DI-1 MMTTY Setup', 'DI-2 MMTTY Setup', 'DI-1 Fldigi Setup', and 'DI-2 Fldigi Setup'. Each MMTTY section has radio buttons for 'AFSK' (selected) and 'FSK', and a text field for the 'MMTTY Path' with a 'Select' button. The DI-1 MMTTY path is 'C:\Radio\N1MM Logger\2ToneD1Main\2Tone.e:'. Below these are sections for 'DI-1 MMVARI Setup' and 'DI-2 MMVARI Setup', each with radio buttons for 'AFSK' (selected) and 'FSK', and a 'FSKPort' dropdown menu. A note at the bottom left states: 'Note: Any Changes made in this section will require the digital windows to be closed and re-opened before changes take effect.'

2Tone.exe

Demystifying N1MM+ : Open Di (Digital Interface) Window



Demystifying N1MM+ : Ensure 2Tone is Opened by Di



Demystifying N1MM+ : Di1 and Di2 open

The screenshot displays the N1MM+ software interface for two radio channels, DI-1 and DI-2. At the top, two windows show the audio spectrum for each channel. The left window, titled 'DI1 G3YYD 2Tone', shows a spectrum with a peak at -06Hz, 02 dB S/N, and a 26mS duration. The right window, titled 'DI2 G3YYD 2Tone', shows a similar spectrum with a peak at -10Hz, 02 dB S/N, and a 41mS duration. Below these are the RTTY Mode windows for each channel. The left window is titled '1895.00 DI-1 RTTY Mode - Soundcard (MMTTY)' and shows a list of call signs including IKTSYO, PX KK, WLYS, FBT E, NF YYY, FUT, DDYTLXR NVTLAMVJQJQFS/31), MXJNE DEHM SAR KUQ, K1644, JZXLYEY, PR KXOQA, DI V, GLLUBZAFECQGCWB, and JRMZSS { JRMWe } VXRH/. The right window is titled '7047.03 DI-2 RTTY Mode - Soundcard (MMTTY)' and shows a list of call signs including DFCALRGEJUJI, DPVKDTUCNDTTQQIGKXS, JP XHMCXHVQS QS JHOHFZBLCXL, AMEBJDE, /5/, ///1-LK OL GQRF G, VUUMPE HN, 1-43LNST, HU, NNKJ, HFK, ZPNKBI YN TP R, OWDE VSSZFOSYZIPACEW, and BE V/315. Below the RTTY windows are the AFSK Elecraft K3 Radio windows. The left window is titled '1895.00 AFSK Elecraft K3 Radio 1' and shows a control panel with buttons for F1 CQ, F2 Exch, F3 TU, F4 Call, F5 His, F6 M7T, F7 QRZ, F8 Agn?, F9 2Exch, F10 LOG, F11 WIPE, F12 GRAB, and a keyboard layout with buttons for Esc: Stop, Wipe, Log It, Edit, Mark, Store, Spot It, and QRZ. The right window is titled '7047.03 AFSK Elecraft K3 Radio 2' and shows a similar control panel. The time displayed in both AFSK windows is 08:34:41Z. The status bar at the bottom of each AFSK window shows the current frequency, SNT, SENTNR, RCV, RCVNR, and TIME.

Demystifying N1MM+ : Di Setup Menu

The image shows a screenshot of the N1MM+ software interface. The main window is titled "1895.00 DI-1 RTTY Mode - Soundcard (MMTTY)". The "Setup" menu is open, displaying a list of options. A mouse cursor is pointing to the "Net On/Off with Run Change" option, which is checked. The menu also includes options like "Settings", "Turn Auto TRXUpdate On", "Bring to foreground when made active", "Soundcard", "Setup MMTTY", "AFC On/Off with CQ", "Turn Hover Mode On/Off", "Rt Click = Return NOT Menu", "Send Text File", "Output RX Window to text file", "Digital Call Stacking", "Use RX Window Callsign Pause Routines", and "Add. RX Windows". The interface also shows a spectrum display, a call list, and various control buttons like "Clr", "Align", "TX", "RX", "HAM", "AFC", "REV", "Grab", and "CLR".

DI1 G3YYD 2Tone
File Setup Help
AFC off
Selectiv
Setup
-44Hz 00 dB S/N Net On 36mS

1895.00 DI-1 RTTY Mode - Soundcard (MMTTY)
Setup Interface Help
Settings
Turn Auto TRXUpdate On
Bring to foreground when made active
Soundcard
Setup MMTTY
AFC On/Off with CQ
 Net On/Off with Run Change
Turn Hover Mode On/Off
Rt Click = Return NOT Menu
Send Text File
Output RX Window to text file
Digital Call Stacking
 Use RX Window Callsign Pause Routines
Add. RX Windows

Clr Align TX RX HAM AFC REV Grab CLR

JQKDV169K
DKBFM3QAU
VBBF/1KVF
YUWGT442XUM

Demystifying N1MM+ : Di Setup, Settings

DigitalSetupWindow

General / MMTTY Setup | **MMVARI Setup** | Message Setup

General Settings

- RX Windows add to Grab window
- Display Radio Freq and not Exact Freq in DI Caption
- Add Callsign to Bandmap on Alt-G
- Send Space on Callsign Mouse Click
- (MMTTY)Send HamDefault on Run to S&P Change
- (MMTTY - MMVARI)Turn AFC On/Off on Run Change
- Do Not add Dupes to Grab Window
- Send Space on Using Grab
- If QSY Wipes call is checked Clear Grab Window and RX window on QSY
- QSY will clear Grab Window and Main RX window always.
- Clear Grab Window On CQ
- Only Grab Master.scop Calls and Prev. Worked Calls in Current Contest
- When using Deuling CQ's (Ctrl-B) in Digital ESC turns off Dueling CQ
- When using Digital Callstacking (STACKANOTHER) will pull top call from Grabwindow.

On Top Settings

- MMTTY Always on Top
- MMVARI Always on Top
- FLDIGI Always on Top

Shift Frequency Compensation

	Enabled	Offset Frequency
DI1	<input type="checkbox"/>	0
DI2	<input type="checkbox"/>	0

Window Scroll

Window Scroll:

- Highlight insertion line in Light Gray

Note: When using multiple windows in the PSK Engine, Scrolling Text will be used.

Callsign Validity and Highlight Routines

- Use Generic Routines
- Use these resources:
 - Master.scop
 - Call History
 - Telnet Calls
 - Logged Calls
- Use Combination of both

Using Combination Routines will highlight calls that are listed in the checked resources in the selected highlight method. Calls that are not in the checked resources will be highlighted Yellow in reverse highlight of what you are using.

- Use Search Routine to find master.scop calls in Garbage Text
- Highlight Foreground Text
- Highlight Background of Text

Alignment Frequency

MMTTY	MMVARI	FLDIGI
1275	RTTY 1360	* RTTY 1275
	Other 1360	Other 1360

MMTTY,FLDIGI = Mark Freq MMVARI = Center Freq

* Add 85 to place Mark Freq on desired frequency. Ex. On 2000 enter 2085

Default RTTY Interface

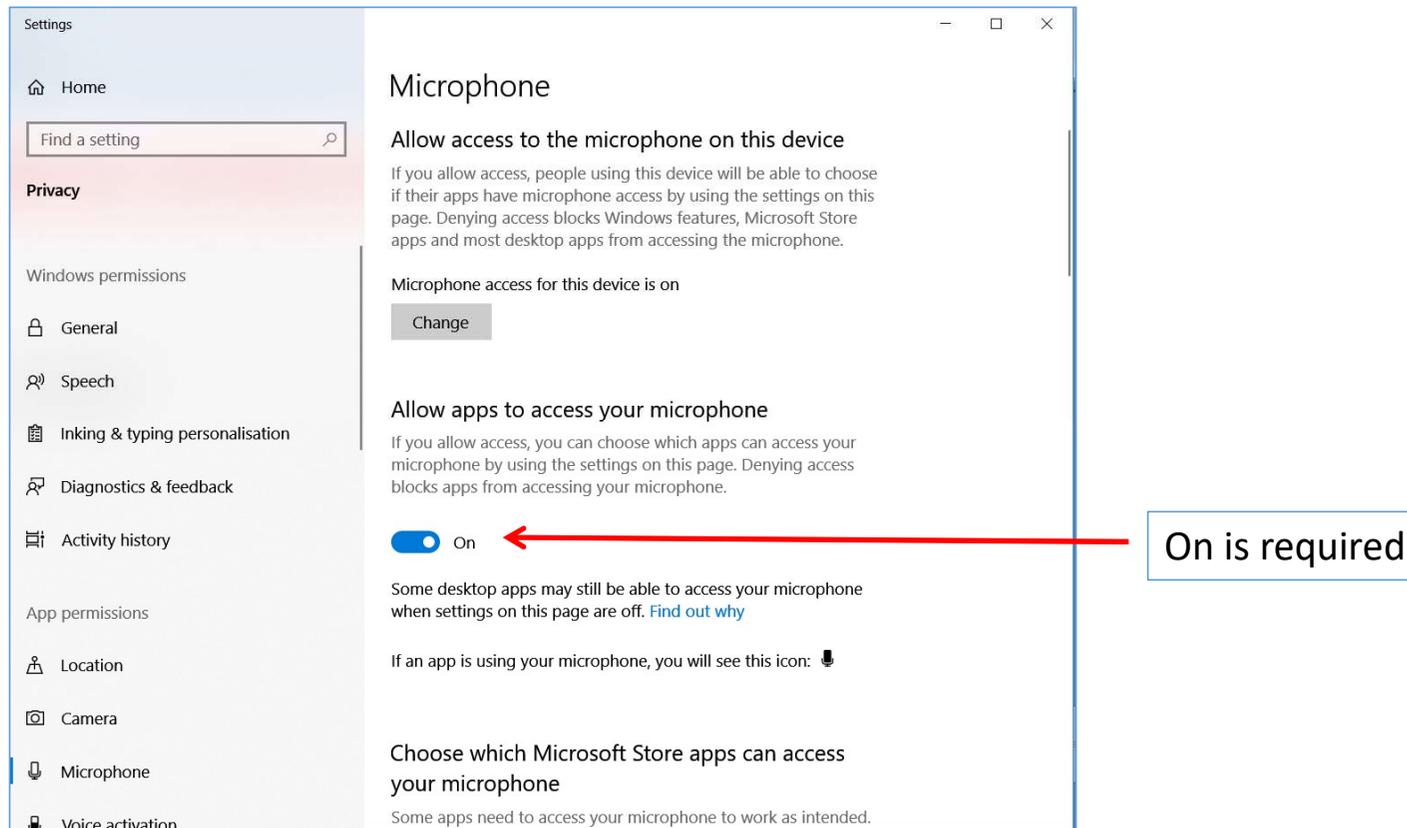
Default PSK Interface

MMTTY Window Layout

Save Settings

Demystifying N1MM+ : Windows Microphone

- Windows updates can turn RX audio off,
- Windows key and type:
- “Microphone” and select “Microphone privacy settings”



Demystifying N1MM+ : 2Tone Setup

- Set the Receive Sound Card
- Left is normally Main RX and Right 2nd RX
- Mark and Space tones anything between 650 and 3000Hz. Default is 2125/2295Hz
- Radio needs to be on LSB for correct shift
- Display Width is the Spectrum display width

- Select TX sound card, can be same for all apps.
- Set DOOK TX for best performance, many radio's FSK is very wide.
- If not using VOX when prompted set PTT COM port. NB only one app at a time per COM port.

- Speed: all contests are 45.45 baud apart from a few special ones at 75 baud.

- RX only Windows, Set TX mode to DOOK.

2Tone Settings

Receive Settings

- Microphone (Sound Blaster Audigy Fx)
- Microphone (Sound Blaster Audigy Fx)
- Line In (Realtek(R) Audio)
- Line In (Sound Blaster Audigy Fx)**
- Microphone (Realtek(R) Audio)

RX Mono RX Left RX Right

Set Mark and Space Tones

Mark Frequency: High

Space Frequency: <Swap>

Display width in Hz:

Transmit Setting

- Speakers (Realtek(R) Audio)**
- Digital Output (AMD High Definition Audio Device)
- LG FULL HD (NVIDIA High Definition Audio)
- Realtek Digital Output (Realtek(R) Audio)
- Speakers (Sound Blaster Audigy Fx)

TX Mono TX Left TX Right

TX Operating Mode

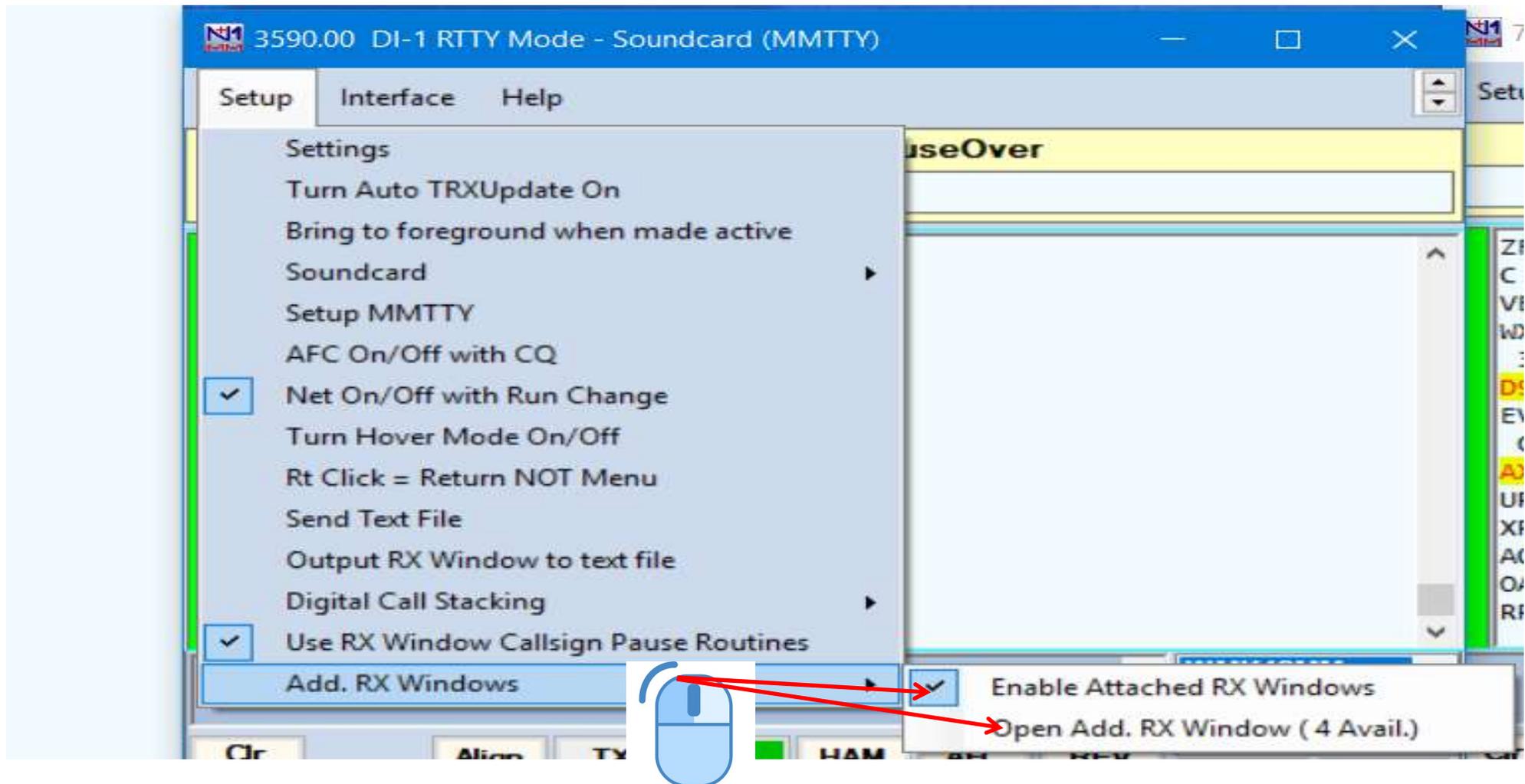
- AFSK TX
- TinyFSK TX
- DOOK TX
- FSK TX

Speed

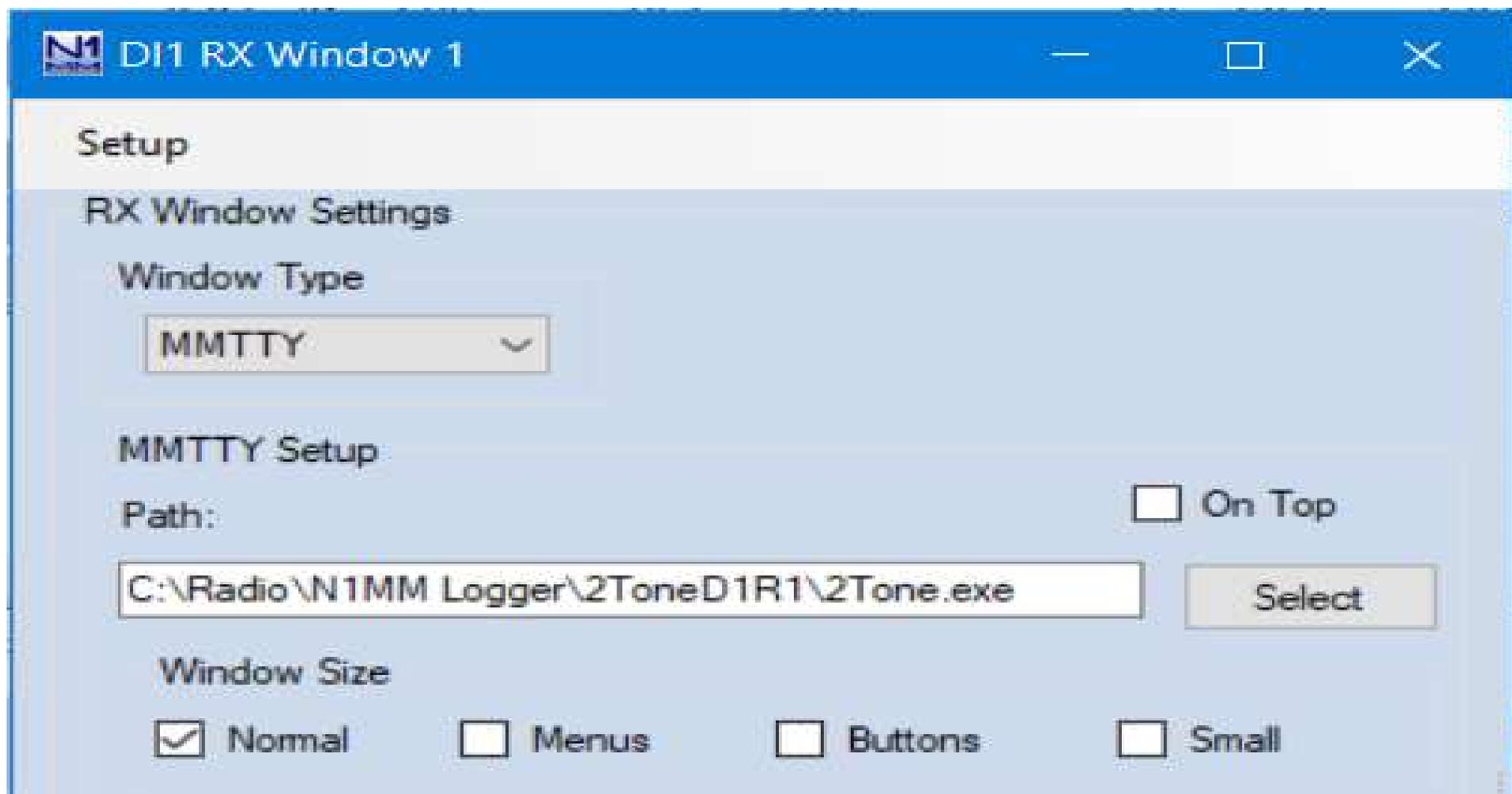
- 45.45 Baud
- 50 Baud
- 75 Baud

OK Cancel

Demystifying N1MM+ : Adding RX decoders



Demystifying N1MM+ : RX Window Path



Demystifying N1MM+ : Di with RX window

The screenshot displays three windows from the N1MM+ software. At the top, there are two side-by-side windows for 2Tone decoders:

- DI1 G3YYD 2Tone:** Shows a spectrum plot with a peak. Controls include 'AFC off', 'Selectiv', and 'Setup'. Status: 13Hz, 00 dB S/N, Net On, 35mS.
- DI1 RX1 2Tone:** Shows a similar spectrum plot. Controls include 'AFC on', 'Flutter', and 'Setup'. Status: -20Hz, 00 dB S/N, Net On, 30mS.

Below these is the main interface window titled '3590.00 DI-1 RTTY Mode - Soundcard (MMTTY)'. It features a 'TX' section with 'Letters/Figs' and 'MouseOver' fields. The main display area shows decoded text:

```
93 /53 TOROZI  
3  
3-IY3/ TICB BZ LDJMPQOBGADTTWEXEVA  
CSKQIXMVHNPBI  
+8-YK D / B  
  
PSE LL  
LWNJSWS  
HEOZ OHET  
LQJBMQKFBNEDSRN VA CVKPJVD E 2-UUNSE EA UWXFQKCYCB  
Y PA VILE BF  
TDUCECHZEDRLTH  
M ET  
NQYY SNMRFWX
```

At the bottom, there are control buttons: 'Clr', 'Align', 'TX', 'RX' (highlighted in green), 'HAM', 'AFC', 'REV', 'Grab', and 'CLR'. A callout box on the left points to the 'Selectiv' and 'Flutter' buttons in the decoder windows.

Note different
2Tone decoders
There are 3

Demystifying N1MM+ :F Key set up

- To edit F keys right click on a Entry Window F key
- Macros are for BARTG March Contest
- Other contests do not have {TIME2}
- {TX} and {RX} must match one less {RX} and TX stays on forever or you hit ESC key.
- DO NOT use “G3YYD de MM3ABC” when Calling just your own call twice/thrice.
- DO NOT use “PSE K” just {RX}
- DO NOT use questions marks, see F7, F8, it is obvious what is required.
- Run F6 is a SO2R thing
- Run F10 is call stacking for the experienced contester.
- Note: F9 when asked for NR NR...
- N1MM Wiki is excellent, use it. Google for what is needed, e.g. N1MM Shortcuts or N1MM Macros

```
F1 CQ,{CLEARIT}{DELALL}{TX}{ENTER}CQ {MYCALL} {MYCALL} {MYCALL} CQ{RX}
F2 Exch,{TX} {EXCH} {EXCH} {TIME2} {TIME2} ! {RX}
F3 TU,{TX} ! tu {MYCALL} cq {RX}
F4 Mine,{TX} {MYCALL}{RX}
F5 His Call,{TX}{ENTER} ! {RX}
F6 QSY,{TX} PSE QSY to {OTHERFREQ}? {RX}
F7 QRZ,{TX} QRZ {MYCALL} {MYCALL} QRZ{RX}
F8 NR,{TX} nr nr nr {RX}
F9 2Exch,{TX}{ENTER} {EXCH} {EXCH} {TIME2} {TIME2} {EXCH} {EXCH} {TIME2} {TIME2} {RX}
F10 LOGPOP,{TX} TU{LOGTHENPOP} NOW{F5}{F2}{RX}
F11 WIPE,{WIPE}
F12 GRAB,{GRAB}
#S&P MESSAGES, Search and Pounce Messages begin here -----
F1 CQ,{TX}{CLEARIT}{DELALL}CQ {mycall} {mycall} CQ{RX}
F2 Exch,{TX} {EXCH} {EXCH} {TIME2} {TIME2} {MYCALL} {RX}
F3 TU,{TX}{ENTER} ! TU {MYCALL} {RX}
F4 Call,{TX} {MYCALL} {MYCALL} {MYCALL} {RX}
F5 His,{TX} ! {RX}
F6 {MYCALL},{TX} {MYCALL} {RX}
F7 QRZ,{TX} QRZ {RX}
F8 Agn?,{TX}{ENTER}agn agn {RX}
F9 2Exch,{TX}{ENTER} {EXCH} {EXCH} {TIME2} {TIME2} {EXCH} {EXCH} {TIME2} {TIME2} {RX}
F10 LOG,{FORCELOG}
F11 WIPE, {WIPE}
F12 GRAB, {GRAB}
```