

# N1MM+ Usage With WSJT-X for FT8

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## Briefing for CMARA FD Operators

Presented at the last CMARA Club Meeting Before Field Day

This presentation describes how to interface N1MM+ to WSJT-X  
For purposes of operating the FT8 mode

*This is a first draft, to help prospective digital and FT8 users.  
Information here may be incomplete or not entirely accurate.*

Reference:

<https://n1mmwp.hamdocs.com/n1mmwpfiles/Download/Additional%20Support%20Files/N1MMWSJTInstructions.pdf>

# TOPICS: N1MM+ and WSJT-X

- Install N1MM+: Full Install, then Latest Update
- Install WSJT-X
- N1MM+ Setup: Log Database, Log, Station Information
- Configure: N1MM+
- Configure WSJT-X

# TOPICS: N1MM+ Installation

## •Download and Install N1MM+ Watch K8UT Video

- Software Installation – *Full Install*, followed by *Latest Update*
  - All this is necessary so that **Networking** will work properly
  - All stations **must** use same **N1MM+ software version**
  - All stations **must** use same **log database** and **log**
  - All stations **must** use same **support files**: country file, super check partial file
  - Enable “**Run as Administrator**” on Desktop Icon  
so **Master Computer** can update Time Clock on **Slave Computers**
  - Install **Log Database** and **Support Files** provided by FD Chairman

# Software Installation – Full Install

- Refer to K8UT Video: N1MMplusDownloadAndInstall\_2017.mp4
- N1MM Logger + Website  
<http://n1mm.hamdocs.com/tiki-index.php>
- Select “Files”
- Download and Install “N1MM+ Full Install”
  - **FD Chairman will provide the Full Install to use at FD meeting or FD site**
    - Install by clicking on the self-installing .exe file
    - This can also be found on the CMARA FD Thumb Drive
- Use the default directories for everything (unless...)
- After Installation
  - Right Click on N1MM+ ICON
  - Use Properties at the bottom
  - Use Compatibility Tab
  - **Check: Run this program as an administrator**
    - This will assure that the slave computers can have their date time clocks updated
- Full Install Only Needs to be Done ONCE!

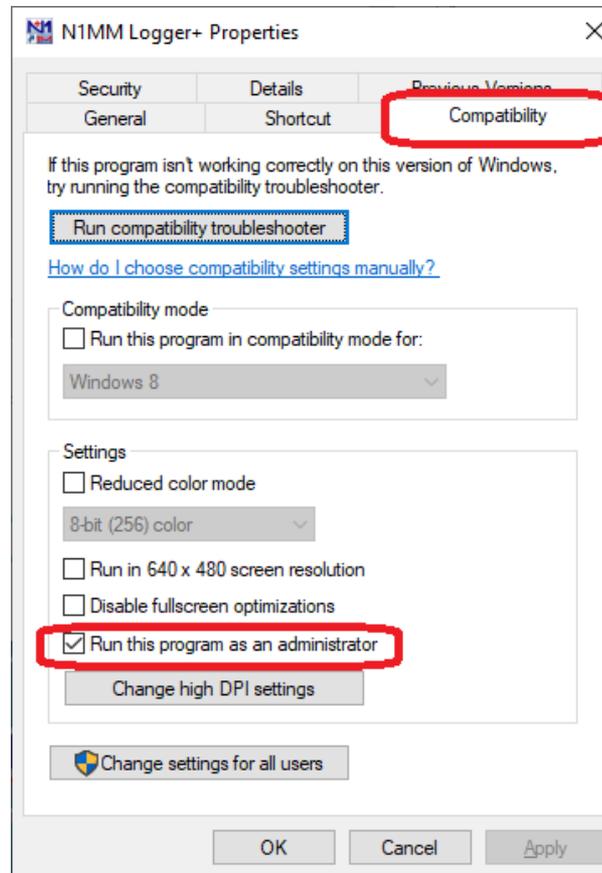
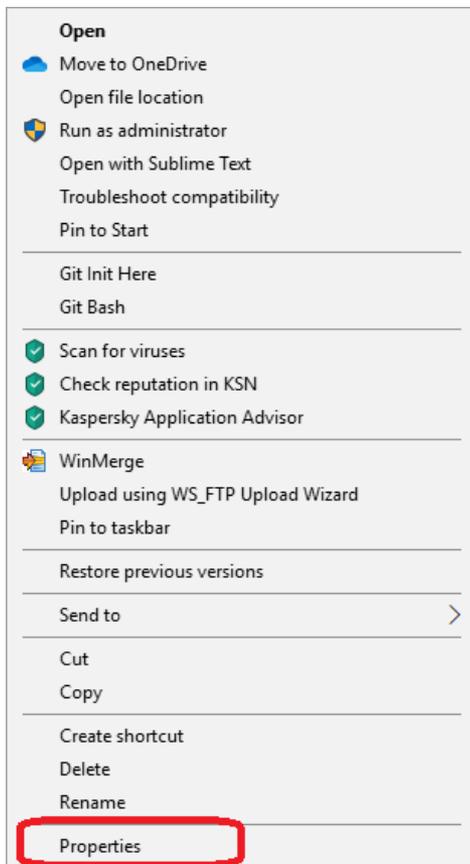
# Software Installation – Install Update

- Refer to K8UT Video: N1MMplusDownloadAndInstall\_2017.mp4
- N1MM Logger + Website  
<http://n1mm.hamdocs.com/tiki-index.php>
- Select “Files”
- Download and Install “N1MM+ Latest Update” use latest version
  - **FD Chairman will provide the latest update to use at FD meeting or FD site**
  - All computers must run the SAME version of N1MM+
  - Install by clicking on the self-installing .exe file
  - This file is also on the CMARA FD Thumb Drive
- Use the default directories for everything (unless...)
- **Read the manual!**
  - There is plenty of documentation:
  - N1MMplus Logger Manual.pdf
  - N1MMplus Quick Start Guide.pdf
  - N1MMplus User Guide.pdf
  - N1MM References (crib sheets)
- Help Files (some are on the Internet, you will need a connection)

# N1MM+ Run as Administrator

Networking requires everyone to Update Time Clocks by Master

1. Right Click on N1MM+ Icon
2. Select Properties
3. Enable Run as Administrator



# TOPICS: CMARA FD N1MM+ Use

## •N1MM+ First Run and Setup      Watch K8UT Video

- Hardware / Software Setup – different per radio and computer
  - USB/RS-232 **CAT** Control – **Required** for Network Reporting of Rig Frequency
  - USB/RS-232 **PTT** / CW / FSK – **Required** for Digital Voice Keyer (DVK), Auto CW, FSK RTTY
  - Computer **Sound Card Interface**– **Required** for DVK & Digital Modes including FT8
  - Digital PSK/RTTY/FT8 – **Required**, Soundcard Interface and **PTT** required.
- Network Setup – Open Network Status Window and Enable Networking
- Operator Setup – use CTRL+O then callsign when starting to operate  
use **OFF**, LUNCH, DINNER, SLEEP, etc. when leaving to indicate station is idle

# N1MM+ Configuration:

- 1) Hardware – CAT, PTT, FSK, CW, WinKeyer
- 2) Function Keys
- 3) Digital Modes – FLDIGI, MMTTY, MMVARI, WSJT-X
- 4) Other
- 5) WinKey
- 6) Mode Control
- 7) Antennas
- 8) Score Reporting
- 9) Broadcast Data
- 10) Audio

# N1MM+ Configuration: Hardware

Configuration for CAT Control, PTT, CW, FSK, WinKeyer

The screenshot shows the 'Configurer' window with the 'Hardware' tab selected. The window has a title bar with a close button (X) and a menu icon. Below the title bar are several tabs: 'Hardware', 'Function Keys', 'Digital Modes', 'Other', 'Winkey', 'Mode Control', 'Antennas', 'Score Reporting', 'Broadcast Data', and 'Audio'. The 'Hardware' tab is active and contains a table of port configurations and a section for radio control settings.

Port	Radio	Digi	CW/Other	Details
COM6	TS-2000	<input type="checkbox"/>	<input type="checkbox"/>	Set
COM7	None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Set
COM41	None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Set
COM1	TS-2000	<input type="checkbox"/>	<input type="checkbox"/>	Set
COM2	None	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Set
None	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

Radio Control Settings:

S01V     S02V     S02R

57600,N,8,2,DTR=Always Off,RTS=Always Off,Tx=1

DTR=Always Off,RTS=PTT,Tx=1

DTR=Always On,RTS=Always Off,Tx=1

57600,N,8,2,DTR=Always On,RTS=Always Off,Tx=2

DTR=CW,RTS=PTT,Tx=2

Buttons: OK, Cancel, Help

# N1MM+ Configuration: Function Keys

The screenshot shows the 'Configurer' window with the 'Function Keys' tab selected. The window has a title bar with a close button (X) and a menu bar with the following options: Hardware, Function Keys, Digital Modes, Other, Winkey, Mode Control, Antennas, Score Reporting, Broadcast Data, and Audio. The main area contains several checkboxes and input fields. The checkboxes are: 'Send leading zeros in serial numbers' (unchecked), 'Send cut numbers' (unchecked), 'Send corrected call before end of QSO' (checked), 'Send partial calls' (checked), 'Use CW contest word spacing' (checked), 'Stop sending CQ when callsign is changed' (checked), 'ESM sends your call once in S&P, then ready to copy received exchange' (unchecked), and 'Work dupes when running' (checked). There are three input fields: a text box for 'String to use on cw between his call key and exchange key (default is one space)', a numeric box containing '186' for 'Keycode of Ins Key', and a numeric box containing '222' for 'Keycode of TU/Log Key Substitute'. Below these is a text box for 'AutoHotKey file'. A paragraph of text reads: 'Make sure that the key mappings defined below match the contents of the keys as defined in Config/Change CW buttons, Config/Change SSB Buttons and Config/Change Digital Buttons.' Below this are two rows of dropdown menus: the first row has 'CQ Key' (F1), 'End of QSO' (F3), 'My Call Key' (F4), 'Again Key' (F8), and 'Next Call' (Disabled); the second row has 'Exchange Key' (F2), 'His Call Key' (F5), 'QSO B4 Key' (F6), and 'Cut Number Style (if enabled)' (T1234567890 (leading T)). At the bottom are three buttons: 'OK', 'Cancel', and 'Help'.

Configurer

Hardware Function Keys Digital Modes Other Winkey Mode Control Antennas Score Reporting Broadcast Data Audio

Send leading zeros in serial numbers

Send cut numbers

Send corrected call before end of QSO

Send partial calls

Use CW contest word spacing

Stop sending CQ when callsign is changed

ESM sends your call once in S&P, then ready to copy received exchange

Work dupes when running

String to use on cw between his call key and exchange key (default is one space)

Keycode of Ins Key

186

Keycode of TU/Log Key Substitute

AutoHotKey file

222

Make sure that the key mappings defined below match the contents of the keys as defined in Config/Change CW buttons, Config/Change SSB Buttons and Config/Change Digital Buttons.

CQ Key	End of QSO	My Call Key	Again Key	Next Call
F1	F3	F4	F8	Disabled
Exchange Key	His Call Key	QSO B4 Key	Cut Number Style (if enabled)	
F2	F5	F6	T1234567890 (leading T)	

OK Cancel Help

# N1MM+ Configuration: Digital Modes

Provides Interface from N1MM+ to Digital Mode Application Executables

The screenshot shows the 'Configurer' window with the 'Digital Modes' tab selected. The window is divided into several sections for configuring digital interfaces and modes.

**Digital Interface 1 and 2 Settings:** Each interface has dropdown menus for TU Type, Speed, Parity, Data Bits, Stop Bits, and Flow.

**MMTTY Setup (If used):**

- DI-1 MMTTY Setup:** MMTTY Mode is set to FSK (selected). MMTTY Path is `C:\Apps\MMTTY\MMTTY.EXE`.
- DI-2 MMTTY Setup:** MMTTY Mode is set to AFSK (selected). MMTTY Path is `Not Set`.

**Fldigi Setup (If used):**

- DI-1 Fldigi Setup:** Fldigi Path is `C:\Apps\FLDIG\Fldigi-3.23.12\Fldigi.exe`.
- DI-2 Fldigi Setup:** Fldigi Path is `Not Set`.

**MMVARI Setup:**

- DI-1 MMVARI Setup:** MMVARI RTTY Mode is set to FSKPort. Mode is set to AFSK (selected).
- DI-2 MMVARI Setup:** MMVARI RTTY Mode is set to FSKPort. Mode is set to AFSK (selected).

**Note:** Any Changes made in this section will require the digital windows to be closed and re-opened before changes take effect.

**Path to WSJT/JTDX:**

- WSJT/JTDX Path Used for SO1V,SO2V mode and Radio1 in SO2R:** Path is `C:\Apps\WSJT\wsjtx\bin\wsjtx.exe`. Command Line Params is `Not Set`.
- WSJT/JTDX Path Used for SO2R Radio 2:** Path is `Not Set`. Command Line Params is `Not Set`.

Buttons at the bottom: OK, Cancel, Help.

# N1MM+ Configuration: Other

Configurer

Hardware Function Keys Digital Modes **Other** Winkey Mode Control Antennas Score Reporting Broadcast Data Audio

Letters Wav File Path  
{Operator}\

Primary CW Speed Step	SSB Tuning Tolerance (Hz)	SSB Up/Down Arrow Incr (kHz)
2	300	0.10
Secondary CW Speed	CW Tuning Tolerance (Hz)	CW & Dig Up/Down Arrow Incr
4	300	0.02
Repeat time in millisecs	RTTY Tuning Tolerance	PgUp/PgDn Incr (kHz)
6000	300	10.00
Default # Spots in SH/DX/	CW Weight	
30	50	

Clear automatically populated exchange on callsign change

Per Operator Function Key Messages

MorseRunner Mode

Show text cursor position in inactive EntryWindow

Overwrite serial number in Entry Window

Mute mic on supported radios

Check for new program versions

CC Cabrillo to logs@supercheckpartial.com

Use Reverse CW Radio 1

Use Reverse CW Radio 2

OK Cancel Help

# N1MM+ Configuration: WinKey

Use if K1EL WinKeyer is used for CW/RTTY

The screenshot shows the 'Configurer' window with the 'WinKey' tab selected. The window title is 'Configurer' and it has a close button in the top right corner. The tabs at the top are: Hardware, Function Keys, Digital Modes, Other, WinKey (selected), Mode Control, Antennas, Score Reporting, Broadcast Data, and Audio.

**Keying Mode:** Iambic B (dropdown), Autospace (checked checkbox).

**Pot is wired with two leads:** (unchecked checkbox)

**Winkey:** None (dropdown), Pin 5 Function (dropdown)

**Winkey 2/3:** Sidetone (unchecked checkbox), Use 2nd Output (unchecked checkbox), Paddle only sidetone (unchecked checkbox)

**Winkey Lite:** For WKLite, J1 tip is set to CW, ring is set to PTT

**Sidetone Frequency:** 469 (dropdown)

**Reverse Paddles:** (unchecked checkbox)

**Winkey Speed Pot Control:** Ignore Winkey Speed Pot (radio), Use Winkey Speed Pot (radio, selected), Use Winkey Speed Pot for Paddle and Keyboard CW Only (radio)

**Winkey RTTY:** Enable RTTY Mode using Winkey (unchecked checkbox)

**Lead Time (0-250) x 10:** 3 (text box)

**Tail Time (0-250) x 10 msec:** 3 (text box)

**First Character Extension (0-250) in msec:** 0 (text box)

**Keying Compensation (0-250) in msec:** 0 (text box)

**Hang Time:** 1.00 (dropdown)

Buttons at the bottom: OK, Cancel, Help.

# N1MM+ Configuration: Mode Control

Used to reconcile sound card modes and radio emission mode

The screenshot shows the 'Configurer' window with the 'Mode Control' tab selected. The window has a title bar with a close button and a menu bar with the following items: Hardware, Function Keys, Digital Modes, Other, Winkey, Mode Control, Antennas, Score Reporting, Broadcast Data, and Audio. The main content area is divided into two sections: 'Mode recorded in log' and 'Mode sent to radio'. The 'Mode recorded in log' section contains five radio button options: 'Use radio mode (default)' (selected), 'Follow band plan', 'Use contest mode or bandplan', 'Use contest or radio mode', and 'Always:'. The 'Always:' option is followed by a dropdown menu showing 'RTTY'. The 'Mode sent to radio' section contains a table with two columns: 'Radio 1 / VFOA' and 'Radio 2 / VFOB'. The 'Mode' row has a 'Mode' label and two dropdown menus, both showing 'RTTY'. The 'RTTY to' row has a 'RTTY to' label and two dropdown menus, both showing 'RTTY'. The 'PSK' row has a 'PSK' label and two dropdown menus, both showing 'USB'. Below these sections is a checkbox labeled 'Always use packet spot mode'. At the bottom of the window are three buttons: 'OK', 'Cancel', and 'Help'.

Configurer

Hardware Function Keys Digital Modes Other Winkey **Mode Control** Antennas Score Reporting Broadcast Data Audio

Mode recorded in log

- Use radio mode (default)
- Follow band plan
- Use contest mode or bandplan
- Use contest or radio mode
- Always: RTTY

Mode sent to radio

Mode	Radio 1 / VFOA	Radio 2 / VFOB
RTTY to	RTTY	RTTY
PSK	USB	USB

Always use packet spot mode

OK Cancel Help

# N1MM+ Configuration: Antennas

Use if N1MM+ is used to automatically switch antennas

Configurer

Hardware Function Keys Digital Modes Other Winkey Mode Control **Antennas** Score Reporting Broadcast Data Audio

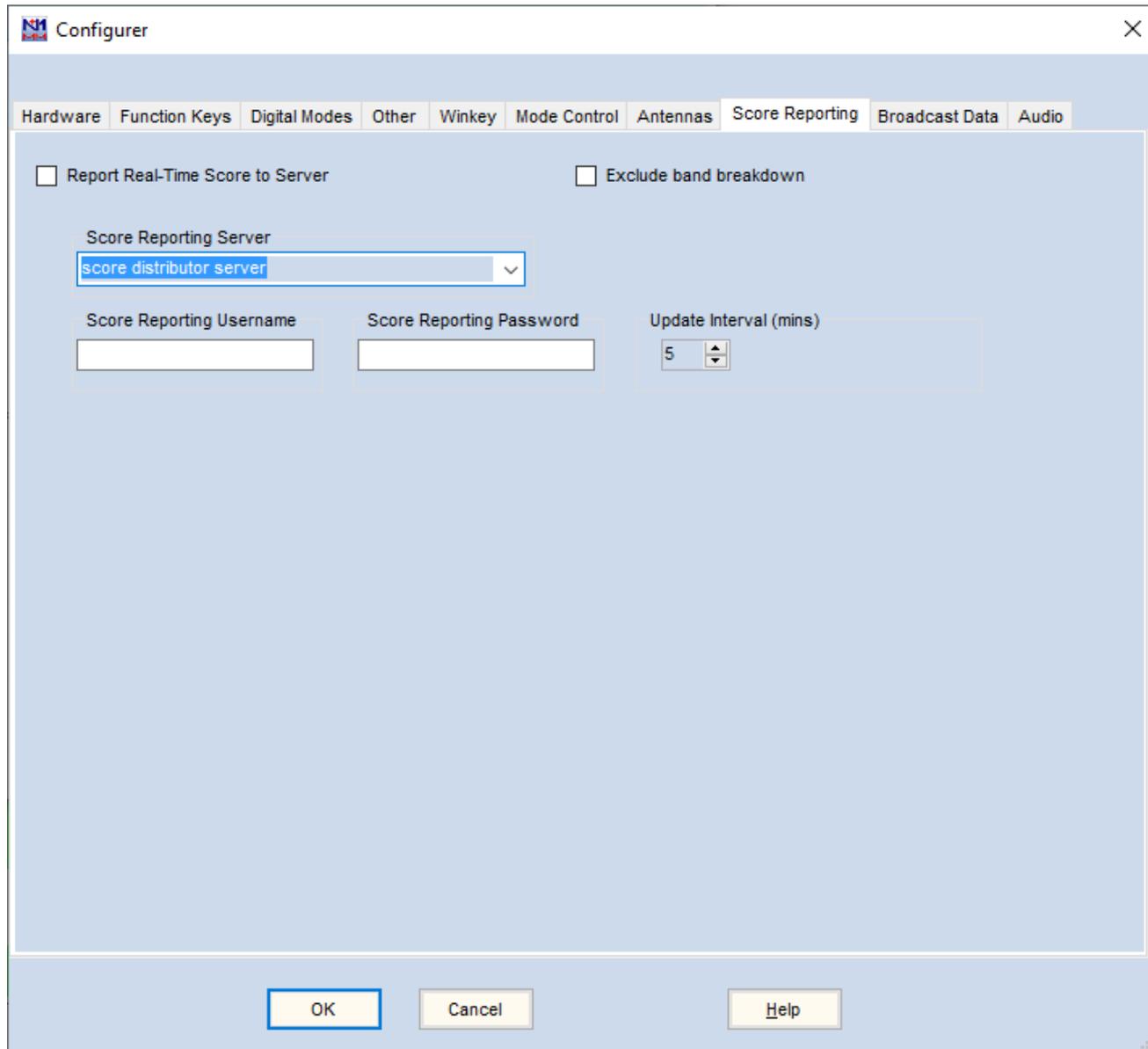
Code	Antenna	Bands (1.8, 3.5, 7, 14,...)	Rotor Description	Offset	Bidirectional
0					<input type="checkbox"/>
1					<input type="checkbox"/>
2					<input type="checkbox"/>
3					<input type="checkbox"/>
4					<input type="checkbox"/>
5					<input type="checkbox"/>
6					<input type="checkbox"/>
7					<input type="checkbox"/>
8					<input type="checkbox"/>
9					<input type="checkbox"/>
10					<input type="checkbox"/>
11					<input type="checkbox"/>
12					<input type="checkbox"/>
13					<input type="checkbox"/>
14					<input type="checkbox"/>
15					<input type="checkbox"/>

Start N1MM Rotor Program     Display Rotors Used By This Station     Display Rotors Responding From Network

OK Cancel Help

# N1MM+ Configuration: Score Reporting

Use if N1MM+ is setup to automatically report scores



The screenshot shows the 'Configurer' window with the 'Score Reporting' tab selected. The window has a title bar with a close button (X) and a menu bar with the following options: Hardware, Function Keys, Digital Modes, Other, Winkey, Mode Control, Antennas, Score Reporting, Broadcast Data, and Audio. The main content area contains the following settings:

- Report Real-Time Score to Server
- Exclude band breakdown
- Score Reporting Server:
- Score Reporting Username:
- Score Reporting Password:
- Update Interval (mins):

At the bottom of the window, there are three buttons: OK, Cancel, and Help.

# N1MM+ Configuration: Broadcast Data

## Setup UDP and TCP/IP Interface to Other Applications

**Configurer**

Hardware | Function Keys | Digital Modes | Other | Winkey | Mode Control | Antennas | Score Reporting | **Broadcast Data** | Audio

Select the type of data you wish to broadcast, and the the IP Address(es) and port(s) for the receiver(s) of the data.  
Use 127.0.0.1 for the local machine. Use 12060 as the port unless the receiving application requires a different port.  
255 in the low order octet will broadcast to your current subnet.

Type of data	IP Addr:Port IP Addr:Port...
<input type="checkbox"/> Application Info	127.0.0.1:12060
<input checked="" type="checkbox"/> Radio	127.0.0.1:12060 127.0.0.1:13060 127.0.0.1:14060 <b>N1MM+ Broadcast to HFAUTO and ALS-1306</b>
<input type="checkbox"/> Contacts <input type="checkbox"/> All Computers	127.0.0.1:12080
<input type="checkbox"/> Spots	127.0.0.1:12060
Rotor	127.0.0.1:12040
<input type="checkbox"/> Score	127.0.0.1:12060
<input type="checkbox"/> External Callsign Lookup	127.0.0.1:12060

WSJT and JTDX UDP connection settings. IP Address and port must match each programs settings. This allows UDP message communications to take place, usually done on port 2237. Logging from other programs can also take place, usually done on port 2333. Default: 2237.

Sets the IP Address and port that an external program can connect to N1MM+ via TCP Port for logging purposes. The Default port for JTDX is 52001.

Enable	IP Address	UDP Port
<input checked="" type="checkbox"/> Enable	127.0.0.1	2333

Enable	IP Address	TCP Port
<input type="checkbox"/> Enable	127.0.0.1	52001

**N1MM+ Receive WSJT-X ADIF Log Broadcast**  
**N1MM+ Logger needs to be restarted for changes made below to take effect.**

OK Cancel Help

# N1MM+ Configuration: Audio

## Setup Audio Input / Output Devices

Configurer

Hardware Function Keys Digital Modes Other Winkey Mode Control Antennas Score Reporting Broadcast Data **Audio**

2 - Two Radio, Output left channel on left radio, right channel on right radio

**For Advanced Voicing Features, select "N1MM Logger+ Audio" in Config menu**

Tx Sound Card Setup

Radio 1 Output Device Line 1 (VirtualAudio Cable) Radio 2 Output Device Realtek Digital Output (Realtek High

Radio 1 Output Device is an Internal Radio Codec  Radio 2 Output Device is an Internal Radio Codec

Select Port to Mute Select Port to Mute

Select Message Recording Device Default

Select Message Recording Port

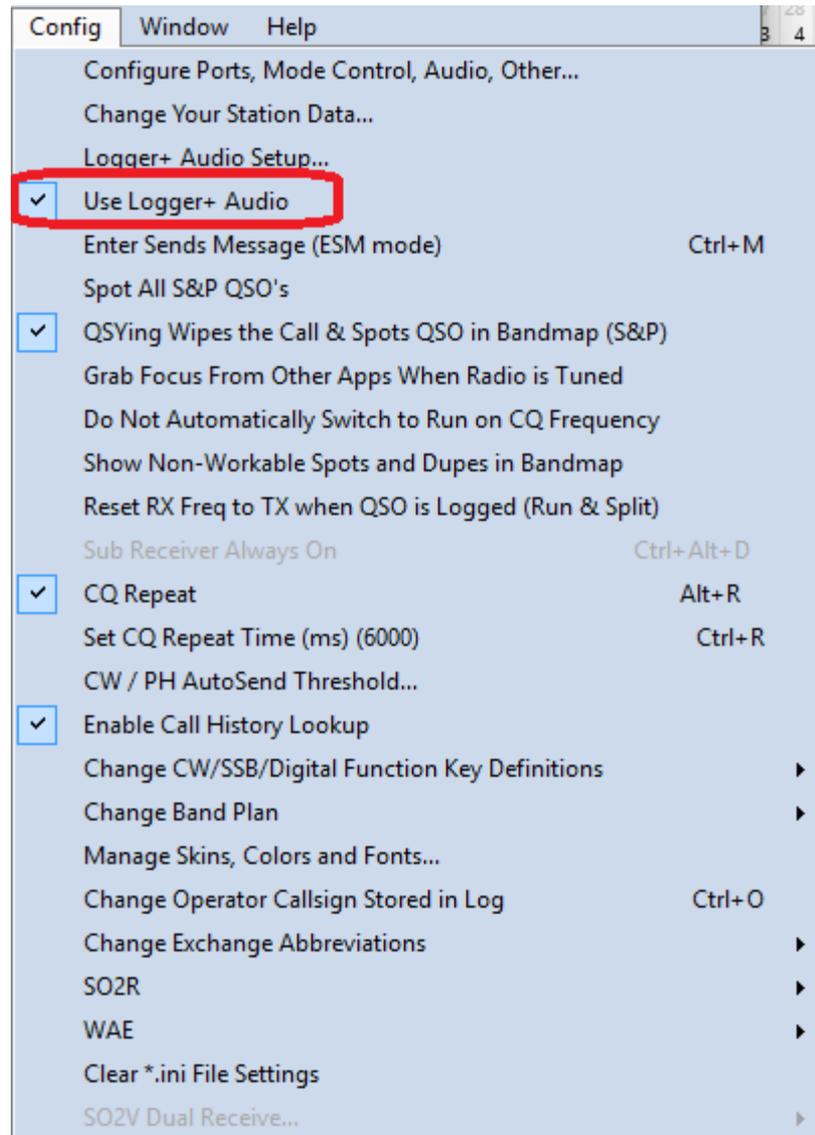
Recording Sample Rate 8000

Recording Bits 16 Max Recording Length 30

OK Cancel Help

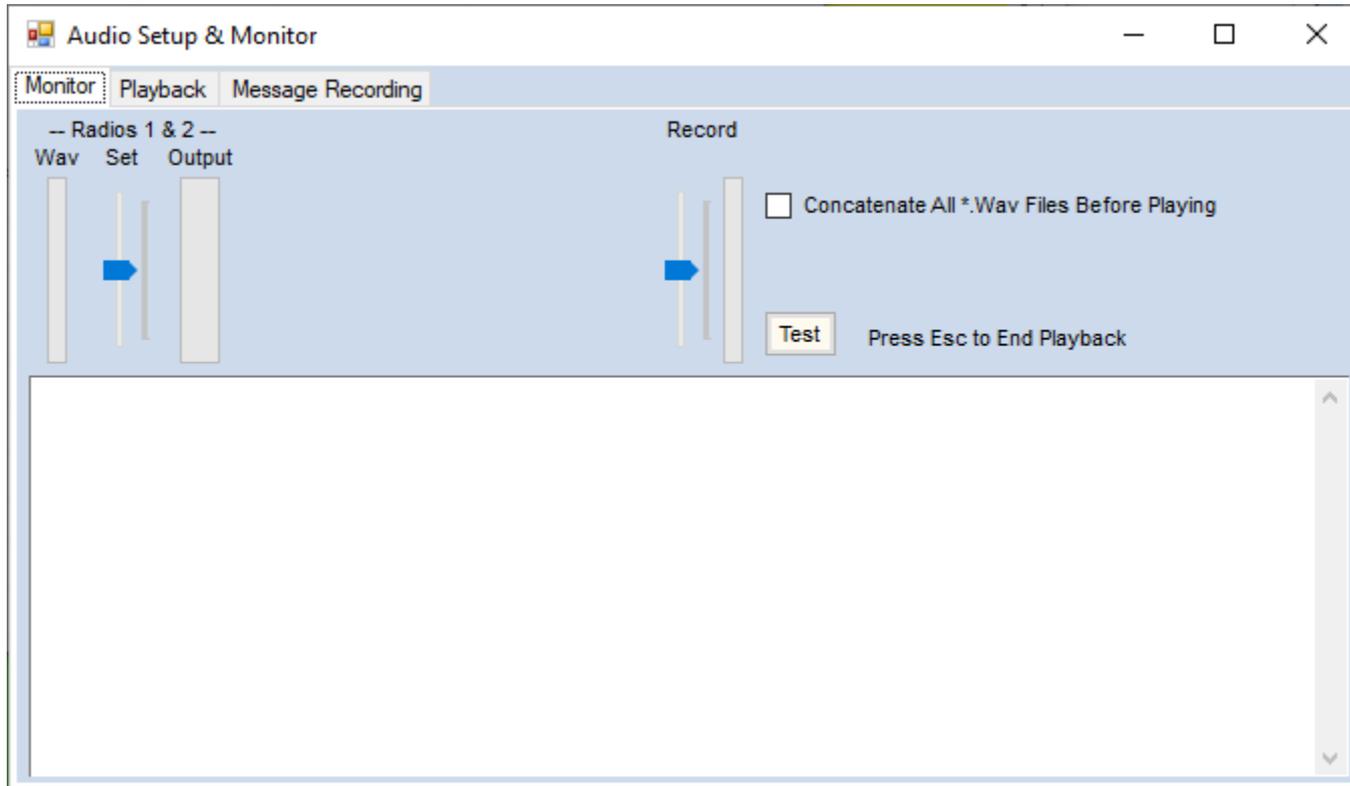
# N1MM+ Configuration: Master List

## Setup Audio Input / Output Devices



# N1MM+ Configuration: Logger+ Audio

## Setup Audio Input / Output Devices



# WSJT-X Configuration: Settings

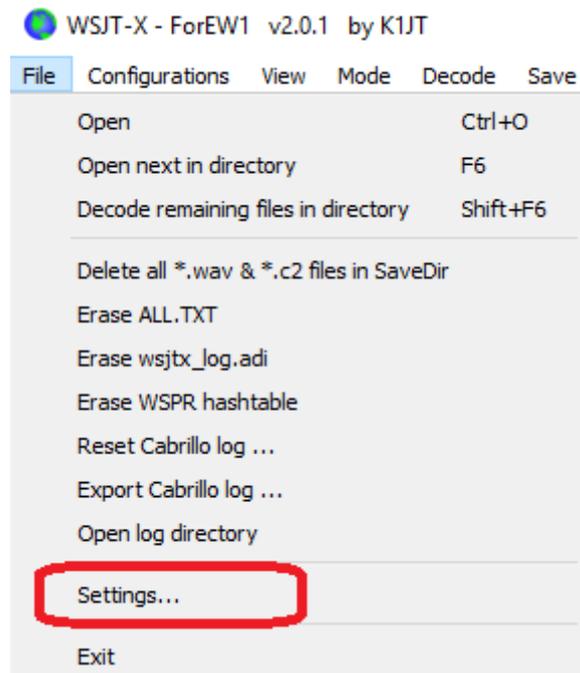
These items need to be setup

Other items optional

- 1) General – Station Callsign and Maidenhead Grid
- 2) Radio – Radio Type (CAT Commands), COM Port, Baudrate, PTT
- 3) Audio – Audio Input and Output
- 4) TX Macros
- 5) Reporting – UDP Broadcast to N1MM+ (ADIF Log Entry)
- 6) Frequencies
- 7) Colors
- 8) Advanced

# WSJT-X Configuration: Settings

## Access Settings



# WSJT-X Configuration: General

Station: Callsign, QTH, General Options

Settings

General | Radio | Audio | Tx Macros | Reporting | Frequencies | Colors | Advanced

Station Details

My Call:  My Grid:   AutoGrid IARU Region:

Message generation for type 2 compound callsign holders:

Display

Start new period decodes at top

Blank line between decoding periods

Display distance in miles

Tx messages to Rx frequency window

Show DXCC, grid, and worked-before status  Show principal prefix instead of country name

Behavior

Monitor off at startup  Enable VHF/UHF/Microwave features

Monitor returns to last used frequency  Allow Tx frequency changes while transmitting

Double-click on call sets Tx enable  Single decode

Disable Tx after sending 73  Decode after EME delay

Alternate F1-F5 bindings Tx watchdog:

CW ID after 73 Periodic CW ID Interval:

# WSJT-X Configuration: Radio

## Radio: Type, CAT Port, PTT

Settings

General Radio Audio Tx Macros Reporting Frequencies Colors Advanced

Rig: Kenwood TS-2000 Poll Interval: 1 s

CAT Control

Serial Port: COM6

Serial Port Parameters

Baud Rate: 115200

PTT Method

VOX  DTR

CAT  RTS

Port: COM7

Data Bits

Default  Seven  Eight

Stop Bits

Default  One  Two

Handshake

Default  None

XON/XOFF  Hardware

Force Control Lines

DTR:  RTS:

Transmit Audio Source

Rear/Data  Front/Mic

Mode

None  USB  Data/Pkt

Split Operation

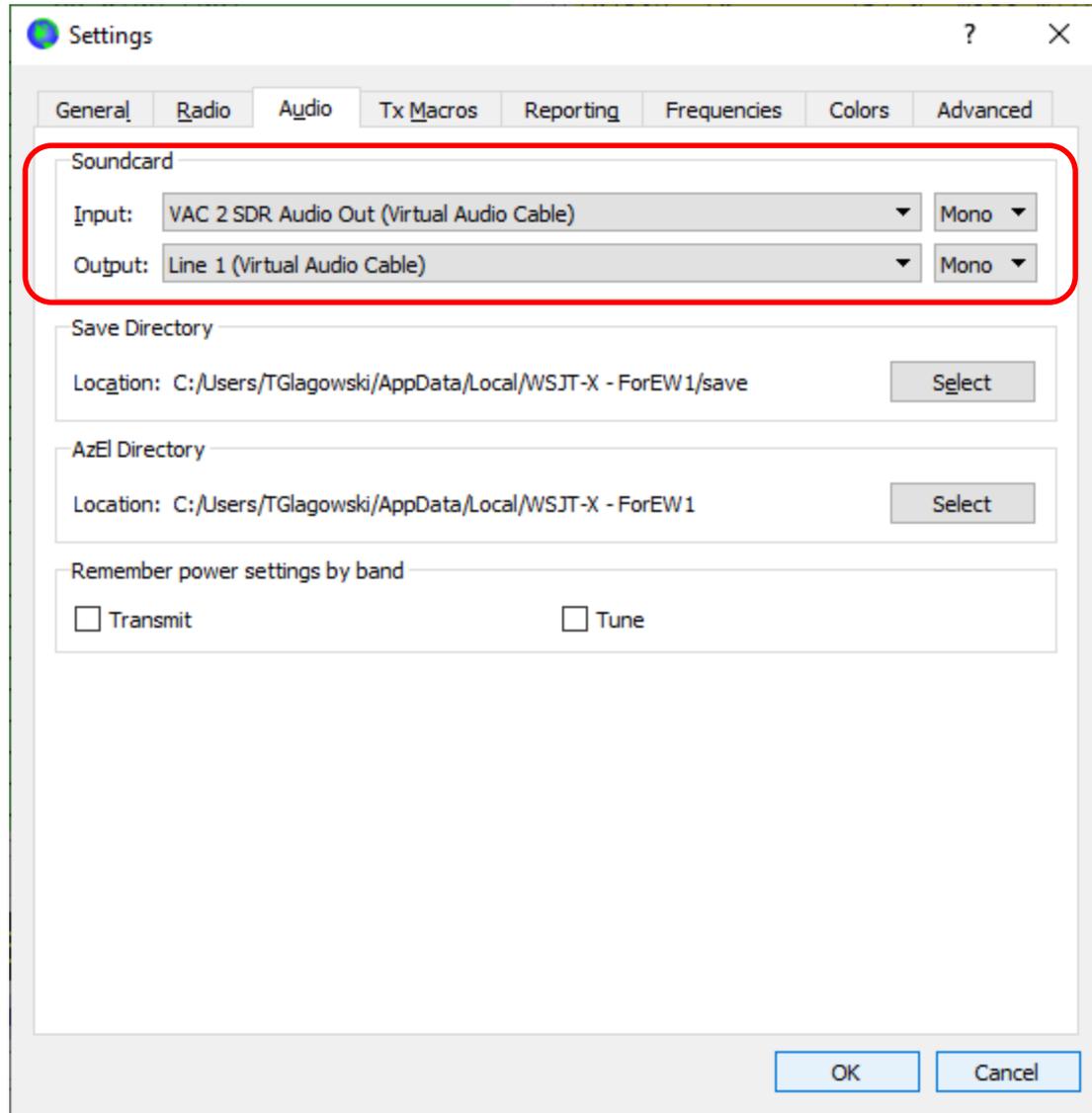
None  Rig  Fake It

Test CAT Test PTT

OK Cancel

# WSJT-X Configuration: Audio

## Audio: Input / Output



Settings

General Radio **Audio** Tx Macros Reporting Frequencies Colors Advanced

Soundcard

Input: VAC 2 SDR Audio Out (Virtual Audio Cable) Mono

Output: Line 1 (Virtual Audio Cable) Mono

Save Directory

Location: C:/Users/TGlagowski/AppData/Local/WSJT-X - ForEW1/save Select

AzEl Directory

Location: C:/Users/TGlagowski/AppData/Local/WSJT-X - ForEW1 Select

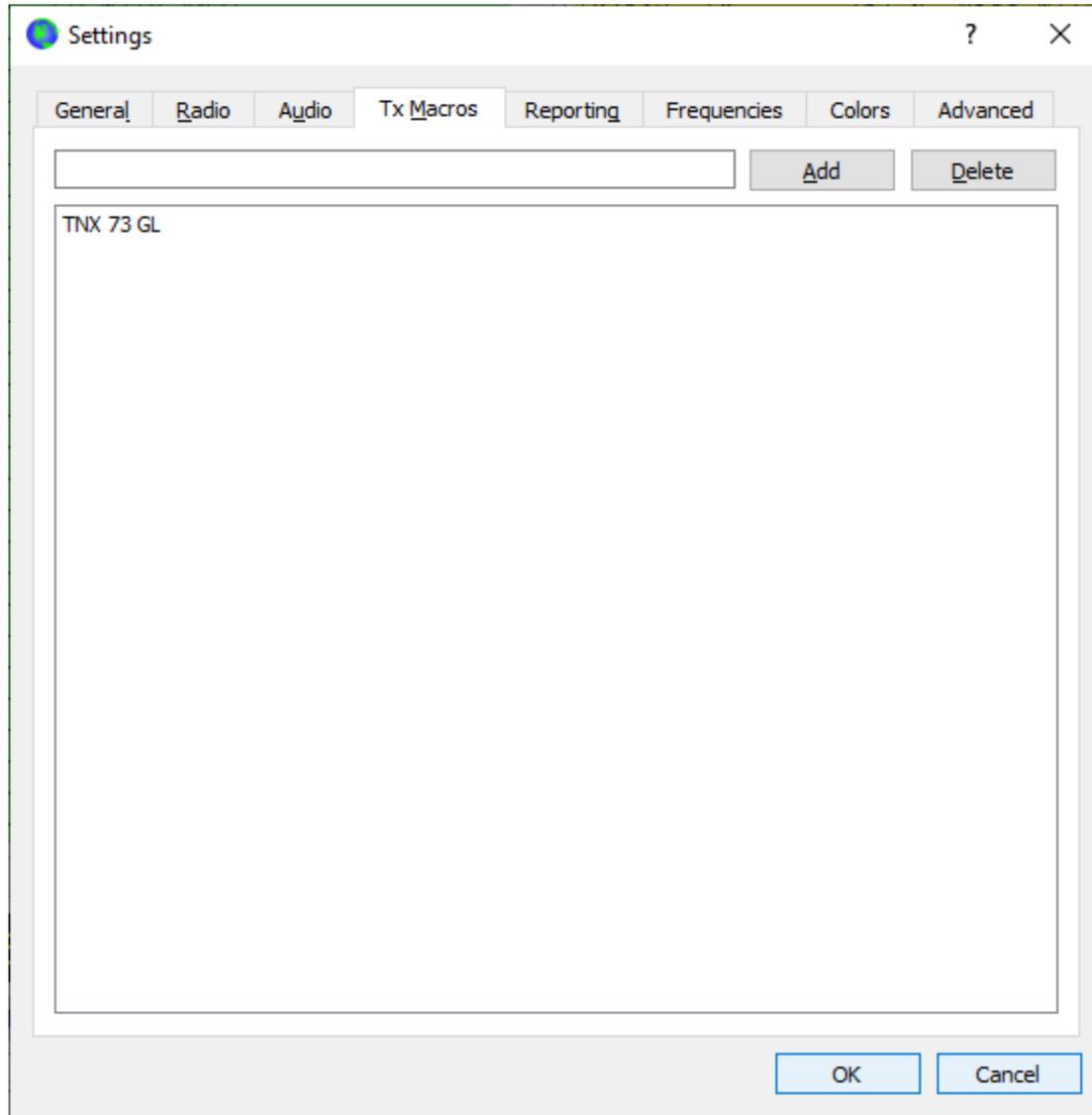
Remember power settings by band

Transmit  Tune

OK Cancel

# WSJT-X Configuration: TX Macros

## TX Macro Definitions



# WSJT-X Configuration: Reporting

## Reporting Options

Settings

General | Radio | Audio | Tx Macros | Reporting | Frequencies | Colors | Advanced

Logging

- Prompt me to log QSO Op Call:
- Log automatically (contesting only)
- Convert mode to RTTY
- dB reports to comments
- Clear DX call and grid after logging

Network Services

- Enable PSK Reporter Spotting

UDP Server

UDP Server:   Accept UDP requests

UDP Server port number:   Notify on accepted UDP request

Accepted UDP request restores window

N1MM Logger+ Broadcasts

- Enable logged contact ADIF broadcast

N1MM Server name or IP address:

N1MM Server port number:

WSJT-X QSOs Logged to N1MM+

OK Cancel

# WSJT-X Configuration: Frequencies

## Frequency Band Plan

Settings

General Radio Audio Tx Macros Reporting **Frequencies** Colors Advanced

Frequency Calibration

Slope: 0.0000 ppm Intercept: 0.00 Hz

Working Frequencies

IARU Region	Mode	Frequency
All	WSPR	0.136 000 MHz (2190m)
All	JT65	0.136 130 MHz (2190m)
All	JT9	0.136 130 MHz (2190m)
Region 1	FreqCal	0.198 000 MHz (OOB)
All	JT65	0.474 200 MHz (630m)
All	JT9	0.474 200 MHz (630m)

Station Information

Band	Offset	Antenna Description
------	--------	---------------------

OK Cancel

# WSJT-X Configuration: Colors

## Color Coding Options

The screenshot shows the 'Settings' dialog box for WSJT-X, with the 'Colors' tab selected. The 'Decode Highlighting' section contains a list of 14 items, each with a checkbox and a color-coded background. The items are: 'My Call in message [f/g unset]' (red), 'New Continent [f/g unset]' (magenta), 'New Continent on Band [f/g unset]' (pink), 'New CQ Zone [f/g unset]' (yellow), 'New CQ Zone on Band [f/g unset]' (orange), 'New ITU Zone [f/g unset]' (light green), 'New ITU Zone on Band [f/g unset]' (pale green), 'New DXCC [f/g unset]' (bright magenta), 'New DXCC on Band [f/g unset]' (light magenta), 'New Grid [f/g unset]' (orange), 'New Grid on Band [f/g unset]' (light orange), 'New Call [f/g unset]' (cyan), 'New Call on Band [f/g unset]' (light cyan), and 'LotW User [b/g unset]' (green). Below the list is a 'Reset Highlighting' button. Underneath is a checkbox for 'Highlight by Mode' and a 'Rescan ADIF Log' button. The 'Logbook of the World User Validation' section has a text field for 'Users CSV file URL' containing 'https://lotw.arrl.org/lotw-user-activity.csv' and a 'Fetch Now' button. Below that is a dropdown menu for 'Age of last upload less than:' set to '365 days'. At the bottom right are 'OK' and 'Cancel' buttons.

Settings

General | Radio | Audio | Tx Macros | Reporting | Frequencies | Colors | Advanced

Decode Highlighting

- My Call in message [f/g unset]
- New Continent [f/g unset]
- New Continent on Band [f/g unset]
- New CQ Zone [f/g unset]
- New CQ Zone on Band [f/g unset]
- New ITU Zone [f/g unset]
- New ITU Zone on Band [f/g unset]
- New DXCC [f/g unset]
- New DXCC on Band [f/g unset]
- New Grid [f/g unset]
- New Grid on Band [f/g unset]
- New Call [f/g unset]
- New Call on Band [f/g unset]
- LotW User [b/g unset]

Reset Highlighting

Highlight by Mode Rescan ADIF Log

Logbook of the World User Validation

Users CSV file URL:  Fetch Now

Age of last upload less than:

OK Cancel

# WSJT-X Configuration: Advanced

## Advanced Options

The screenshot shows the 'Settings' dialog box for WSJT-X, with the 'Advanced' tab selected. The window title is 'Settings' and it has standard window controls (minimize, maximize, close) in the top right corner. The 'Advanced' tab is highlighted among other tabs: General, Radio, Audio, Tx Macros, Reporting, Frequencies, Colors, and Advanced.

The 'Advanced' tab is divided into several sections:

- JT65 VHF/UHF/Microwave decoding parameters:**
  - Random erasure patterns: 6
  - Aggressive decoding level: 0
  - Two-pass decoding
- Miscellaneous:**
  - Degrade S/N of .wav file: 0.0 dB
  - Receiver bandwidth: 2500 Hz
  - Tx delay: 0.2 s
  - Tone spacing:**
    - x 2
    - x 4
- Special operating activity: Generation of FT8 and MSK144 messages:**
  - Fox
  - Hound
  - NA VHF Contest
  - ARRL Field Day
  - EU VHF Contest
  - ARRL RTTY Roundup
  - FD Exch:
  - RTTY RU Exch:

At the bottom of the dialog, there are 'OK' and 'Cancel' buttons.