

## Using N1MM Logger+ by W2HUV

The N1MM Logger+ (N1MM+) application isn't a bad choice if you are looking for a logging program to use while remotely controlling the W2MMD-HF station. You will be able to record all contacts in a single log or in a contest log as needed. That includes FT8 and FT4 contacts. You may generate a Cabrillo file or export contacts to an ADIF file.

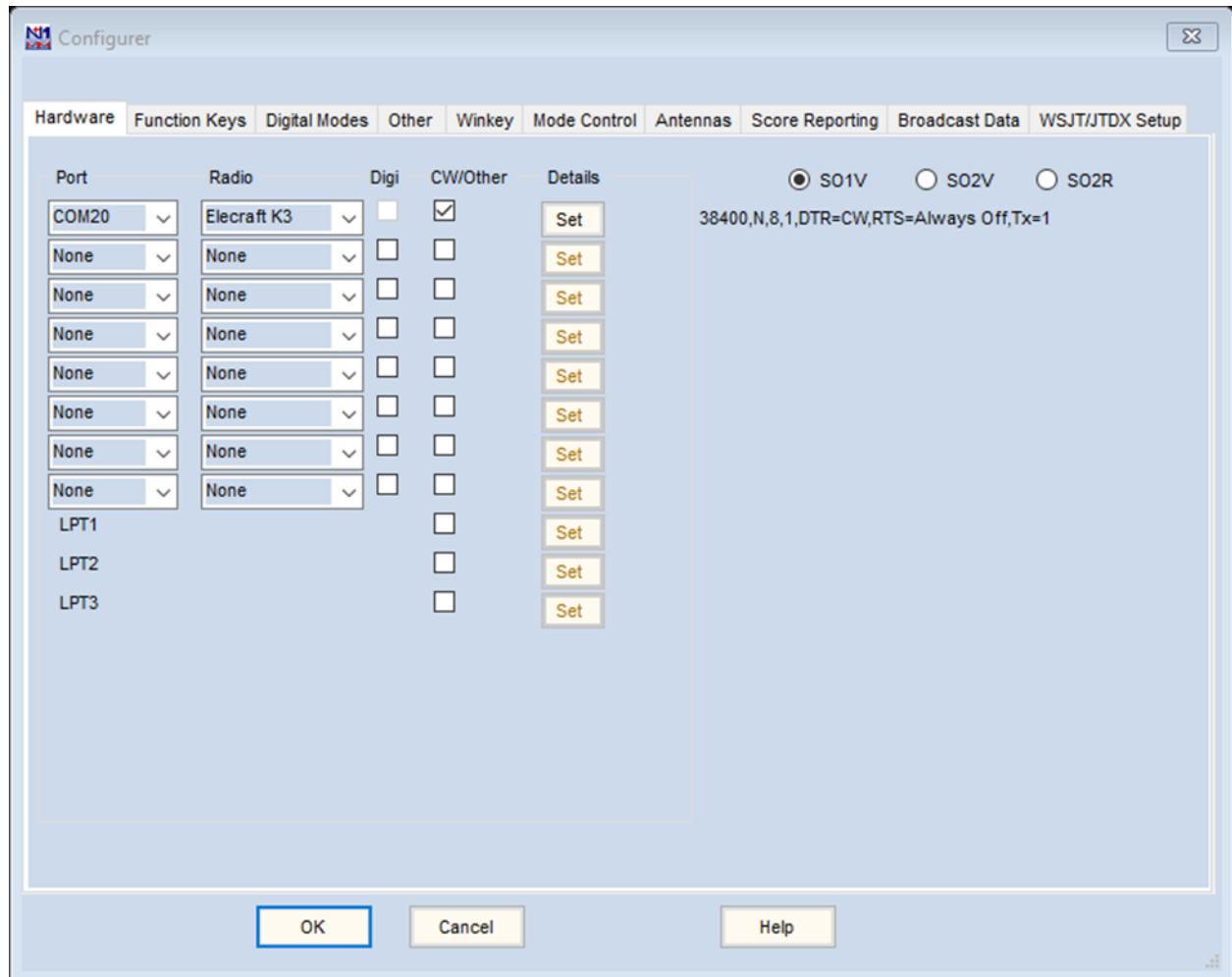
If you don't already have N1MM+ installed on your computer, go to the following link and follow the instructions:

<http://n1mm.hamdocs.com/tiki-index.php?page=Full+Install>

### **N1MM+ Setup**

- 1) Open RCForb client.
- 2) Select the "Virtual Devices" tab and look at the "Virtual K3" option. If the option is greyed out, it will be necessary to reinstall the client, this time, checking the "Virtual Serial Port Support" option.
- 3) Turn on the "Virtual K3" option and select a COM port. COM20 is suggested because it is easy to remember and out of the way.
- 4) Restart the Client, connect to the radio and turn it on.
- 5) Open N1MM+.

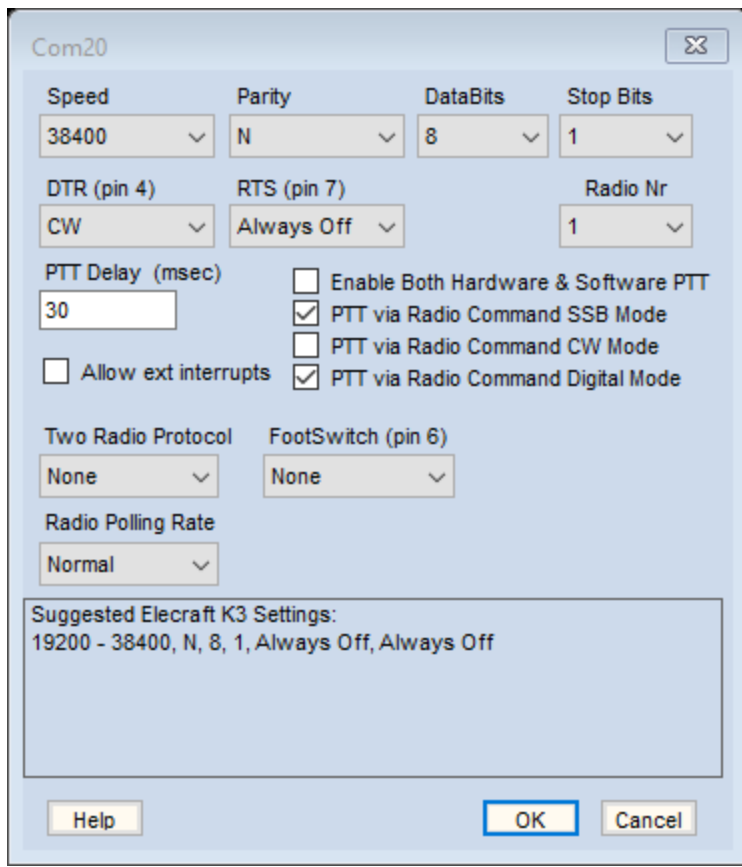
6) Select “Config”, “Configure Ports, Mode Control, Winkey, etc...” The screen below will appear after Step 7) has been completed.



7) Select the port selected in Step 3) for “Port” in the first line, select “Elecraft K3” for “Radio” and check the “CW/Other” box.”.

8) Click the “Set” button under “Details”. The screen that follows will appear after the changes. Set the speed at 38400. Click the “DTR (pin 4) down arrow and select CW. Check the second and fourth PTT options. Click “OK” to save these changes and again to save the above changes.

**Note:** N1MM+ must be restarted for configuration changes to take effect.



9) Select the “Configurer” “WSJT/JTDX Setup” tab. The screen on the next page will appear after Steps 10), 11) and 12) have been completed.

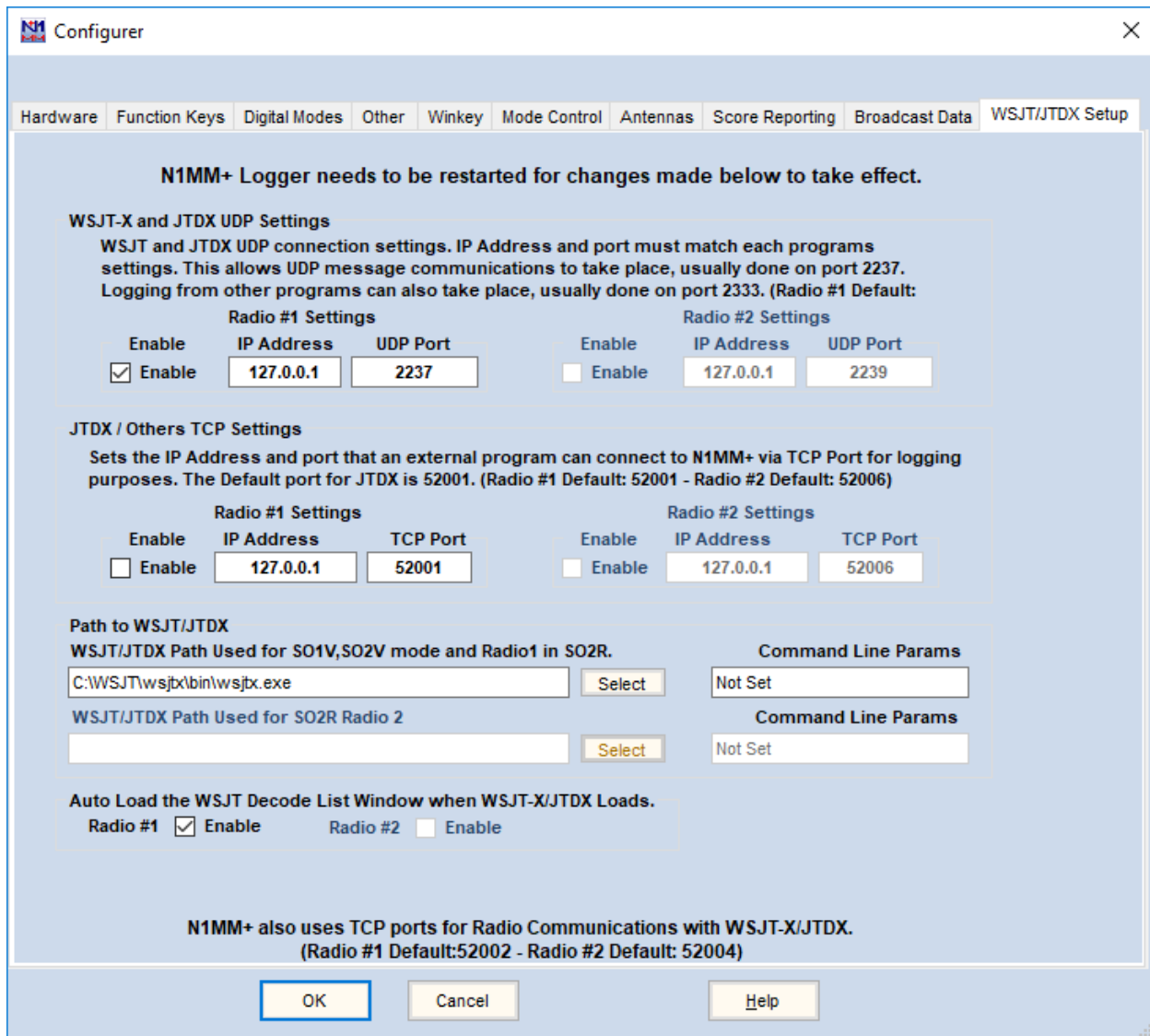
10) Ensure that the “WSJT and JTDX UDP Settings” Enable box is checked for “Radio #1”.

11) \*Verify that the “Path to WSJT/JTDX” indicated is correct by clicking the “Select” button, locating wsjtx.exe and opening it.

12) \*Ensure that the “Auto Load the JTDX Decode List Window when WSJT-X/JTDX Loads” Enable box is checked for “Radio #1”.

13) Select the “Configurer” “Mode Control” tab. Ensure that USB is selected for the “DIGI” mode. Click “OK” to save all “Configurer” changes.

\*Steps 11) and 12) only apply if the Advanced **N1MM+ / WSJT-X Interface** is used. See discussion following the **Configuring General Log** next.



## Configuring General Log

- 1) Open N1MM+ if not already running.
- 2) Select "File", "New Database...", name it W2MMD and save it. A new log will appear titled "General Logging – W2MMD.s3b".
- 3) Select "Config", "Change Your Station Data...". The screen below will appear with whatever information you may have entered in the past in a different database. The author's information appears in this case. The first five lines, the last two lines and "License" are **your** information, not the station's. Fill them in with your information. Duplicate the information in the remaining lines. Click "OK" to save the information.

**Edit Station Information**

Tip: You need to fill out this form or the program will not perform properly... Also, make sure your computer date and time are set to the LOCAL date and time zone for your location.

Call

Name

Address

Address

City  State  Zip

Country

Grid Square  CQ Zone  ITU Zone

License  Latitude   Longitude

Station TX/RX  Power

Antenna  Ant. Height  a.s.l.

ARRL Section

Rover QTH

Club

Email address

- 4) Select "File", "Open Log in Database: W2MMD.s3db". The screen that follows will appear. Note that the "Contest" selected is "DX". This is the log that you should use when not participating in a contest. This is the log titled "General Logging – W2MMD.s3b".
- 5) Duplicate the five categories listed. Note that the mode listed is "SSB+CW+Digital". This is required for the log to accept contacts for all three modes. Digital includes the FT8 and FT4 modes.
- 6) List your callsign as the operator unless you plan to operate using the callsign W2MMD.
- 7) Take a look at the "Associated Files" tab. The default "CW Function Key" file should suffice if you plan to use N1MM+ to automatically send CW in response to the function keys. The default "SSB Function Key" file will require a lot of work if you desire to send voice files in response to the function keys. Suggest that you stick to manual data entry during phone operation.

W2MMD.s3db

Select Existing Log

Contest	Start Date	Contest Description
WWDIGI	2019-08-31 12:00:00	World Wide Digi DX
CQWPXCW	2019-05-25 00:00:00	CQ WPX CW
<b>DX</b>	<b>1900-01-01 00:00:00</b>	<b>General Logging</b>
DELETEDQS	1900-01-01 00:00:00	Deleted Qs

Contest Associated Files

Category   684 Contacts

Operator SINGLE-OP

Band ALL

Power LOW

Mode SSB+CW+DIGITAL

Overlay N/A

Sent Exchange  Omit RST. E.g. CQWW: 05 SS: A 56 EMA

Operators W2HUV

Soapbox

## N1MM+ / WSJT-X Interface

There are two ways that N1MM+ may interface with WSJT-X. We will call them Standard and Advanced. Both may use the same log file.

### Standard

You start WSJT-X as you do normally and then start N1MM+. You must disable N1MM+ use of Elecraft K3 CAT during WSJT-X operation because WSJT-X must use it as shown in “WSJT-X Operation” topic, **Setup: WSJT-X**, Step 1).

Refer to **N1MM+ Setup** Step 6) above. Change “Radio” to “None” and uncheck “CW/Other” box. Do not forget to restore the original settings before switching to CW or SSB.

**Note:** N1MM+ must be restarted for configuration changes to take effect.

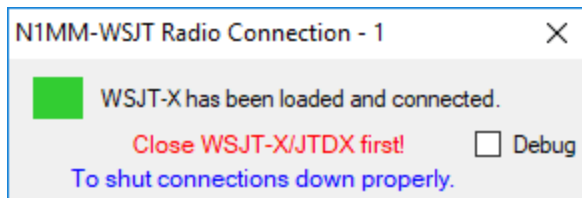
## Advanced

Start N1MM+ and select the Window “Load WSJT-X/JTDX”. The clone WSJT-X - ForEW1 will appear. This method provides access to the following features that were provided when N1MM+ was significantly revised in preparation for the 2019 World Wide Digi DX Contest (WWDIGI) held on Labor Day weekend 2019:

- “Grid Fields Map” has been added to the “Multipliers” windows. Right click a grid field for bearing.
- “WSJT-X Decode List” window has been added providing color coded list of new, worked or dupe grid fields.
- Callsigns of new, worked or dupe grid fields are highlighted in WSJT-X “Band Activity” window in same colors as WSJT-X Decode List.

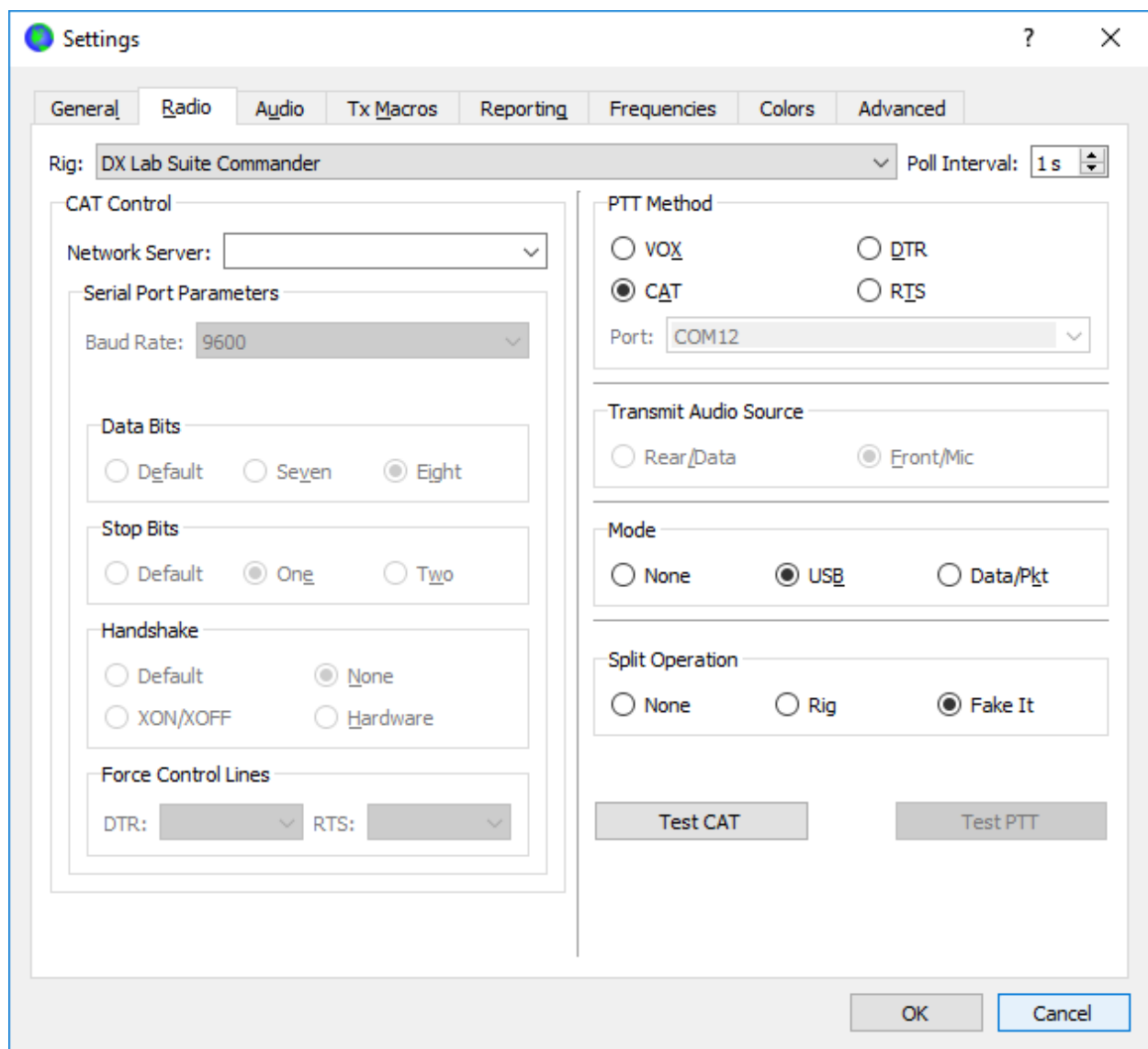
### Additional Configuration

- 1) Open N1MM+ if not already running.
- 2) Select the Window “Load WSJT-X/JTDX”. The clone WSJT-X - ForEW1 will be created. The following window will appear when creation is complete.



- 3) Select “File”, “Open log directory”. The file “WSJT-X – ForEW1” is the settings file (.ini) and is cleared initially. The file “wsjtx\_log” is the log file (.adi) and is empty initially.
- 4) If you would like start with the original settings, go up one level in the tree to the “Local” folder, select the “WSJT-X” folder and copy “WSJT-X” to the “WSJT-X – ForEW1” folder. Delete “WSJT-X – ForEW1” and rename “WSJT-X” “WSJT-X – ForEW1”.
- 5) If you would like to maintain the history in your present log file, countries worked for example, go to the “WSJT-X” folder and copy “wsjtx\_log” to the “WSJT-X – ForEW1” folder. You will be advised that the file already exists and asked if you still want to copy it. Select “Yes”.

6) Select the WSJT-X - ForEW1 “Radio” settings tab. The window below will appear. “Split Operation” may be set to “Rig” or “Fake It”, but “Fake It” is preferred because less handshaking is required, making it more reliable. Make sure that the remaining settings are as shown. There is no need to install the “DX Lab Suite Commander”. It is specified because the software linkage provided is used for N1MM+ CAT control.



7) Select the WSJT-X - ForEW1 “Reporting” settings tab. The screen on the next page will appear. Check “Prompt me to log QSO” under “Logging”, check “Enable PSK Reporter Spotting” under “Network Services”, check “Accept UDP Requests” under “UDP Server” and make sure that “Enable logged contact ADIF broadcast” under “Secondary UDP Server (deprecated)” is NOT checked. Click “OK” to save the changes.

8) Going forward, the startup sequence is open the client, turn on the radio, start N1MM+, select the Window “Load WSJT-X/JTDX” and wait for the WSJT-X – ForEW1 window and the Step 2) window to appear. Close WSJT-X – ForEW1, wait for the Step 2) window to disappear and close N1MM+ when you are done.



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  Use TCP/IP connection

UDP Server

UDP Server:   Accept UDP requests

UDP Server port number:   Notify on accepted UDP request

Accepted UDP request restores window

Secondary UDP Server (deprecated)

Enable logged contact ADIF broadcast

Server name or IP address:

Server port number:

## Additional Information

The screen shots below show how new and worked grid fields are identified on the WSJT-X - ForEW1 "Band Activity" window on the left and the N1MM+ "WSJT-X Decode List" on the right. The text of stations in grid fields that are new, worked or duped on each band is highlighted in red, blue or gray text in the "WSJT-X Decode List". The background of the same stations is highlighted is the same colors in the WSJT-X - ForEW1 "Band Activity" window. You may double click either list to initiate an exchange.

The image displays two side-by-side screenshots from the WSJT-X software interface. The left window, titled "WSJT-X - ForEW1 v2.1.0 by K1JT", shows the "Band Activity" window. It contains a table with columns for UTC, dB, DT, Freq, and Message. The table lists various stations with their call signs and grid fields, such as SV1EDY, DA0FUL/E, DB4MB, S57AW, 9G2HO, G0IXE, CO2YQ, EI9KF, IZ8DBJ, S568D, HK3JJH, OD5Z2, IZ2ODM, RK4FF, WB8JUI, IU2LVV, HK3JJH, DD7BC, W8ASA, M5JPG, and OO6C. The right window, titled "WSJT-X Decode List 1", shows a table with columns for Time, Call, SNR, Freq, and Msg. It lists decoded stations with their call signs and messages, such as IK1VHR, N2BRJ, ZB2CM, 5P1KZX, A65FN, K4MT, WB9ZPY, EA7KDC, LA9DL, F4FXV, DM2PE, PA1EZ, IW4AOT, CO2YQ, EA1BQR, EH5SDC, LX1JX, AC9HP, EA4GA, WB9VJR, PD0LK, and M6JVJ.

UTC	dB	DT	Freq	Message
222800	-6	0.4	1898	~ CQ SV1EDY KM17 Greece
222815	-12	0.5	385	~ CQ DA0FUL/E JO40 Germany
222815	-6	1.3	753	~ CQ DB4MB JO30 Germany
222815	-5	0.5	812	~ S57AW GOVDE R-13
222815	-7	0.4	883	~ 9G2HO SP5APW KO02
222815	-19	0.4	949	~ CQ G0IXE IO94 England
222815	-16	1.4	1202	~ CO2YQ IU5MPK JN52
222815	1	0.5	1283	~ CQ EI9KF IO64 Ireland
222815	1	0.4	1373	~ IZ8DBJ EA1BQR R-13
222815	-13	0.5	1490	~ CQ S568D JN76 Slovenia
222815	-4	0.6	1613	~ HK3JJH DK3WN JN49
222815	-7	0.5	1854	~ OD5Z2 EA1HS IN82
222815	-10	0.4	1908	~ IZ2ODM ZB2CM RR73
222815	-15	1.2	2135	~ RK4FF F4FXV 73
222815	-11	0.4	2254	~ WB8JUI WB9ZPY 73
222815	-2	0.9	2309	~ IU2LVV K4MT -24
222815	-17	0.8	2430	~ HK3JJH DL9GCG JN47
222815	-15	0.9	2709	~ CQ DD7BC JO43 Germany
222815	-19	0.5	361	~ W8ASA KJ4GK EM83
222815	-20	1.4	931	~ CQ M5JPG IO83 England
222815	-14	0.5	1257	~ CQ OO6C JO11 Belgium

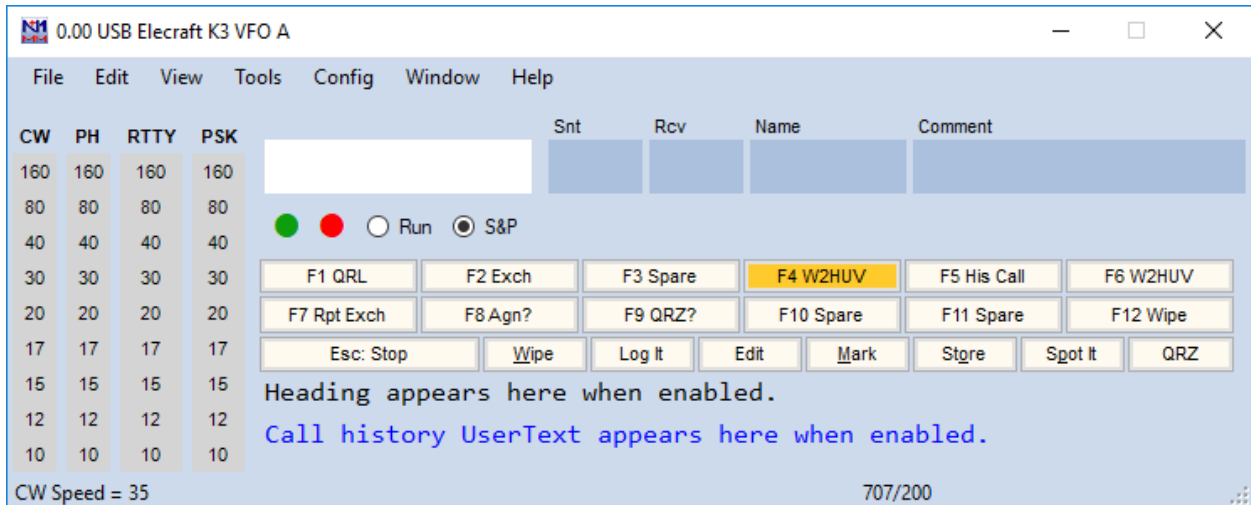
Time	Call	SNR	Freq	Msg
22:22:45	IK1VHR	-19	657	CQ IK1VHR JN44
22:23:30	N2BRJ	20	1700	CQ N2BRJ FM29
22:23:45	ZB2CM	-10	1909	CQ ZB2CM IM76
22:24:15	5P1KZX	-13	330	CQ 5P1KZX JO57
22:24:15	A65FN	-19	1000	CQ A65FN LL75
22:24:45	K4MT	1	2308	CQ K4MT FM05
22:25:45	WB9ZPY	-13	1804	CQ WB9ZPY EL87
22:27:15	EA7KDC	-18	408	CQ EA7KDC IM76
22:27:15	LA9DL	-18	506	CQ LA9DL JO59
22:27:15	F4FXV	-15	2135	CQ F4FXV JN33
22:27:15	DM2PE	-18	2340	CQ DM2PE JN49
22:27:30	PA1EZ	-8	692	CQ PA1EZ JO21
22:27:30	IW4AOT	-8	1497	CQ IW4AOT JN54
22:27:30	CO2YQ	-10	1079	CQ CO2YQ EL83
22:27:45	EA1BQR	1	1372	CQ EA1BQR IN81
22:27:45	EH5SDC	-15	821	CQ EH5SDC IM98
22:28:00	LX1JX	-6	409	CQ LX1JX JO30
22:28:00	AC9HP	-13	560	CQ AC9HP EM69
22:28:00	EA4GA	-10	1140	CQ EA4GA IN80
22:28:00	WB9VJR	-13	1216	CQ WB9VJR EN82
22:28:00	PD0LK	-10	2574	CQ PD0LK JO21
22:28:00	M6JVJ	-17	844	CQ M6JVJ IO83

Official instructions for using the WSJT Decode List with N1MM+ are located at <https://n1mmwp.hamdocs.com/manual-windows/wsjt-x-decode-list-window/>.

## Using General Log

### CW and SSB:

You will need to manually fill in the blanks on the screen that follows in the CW and SSB modes and click “Log It” to save the QSO if you do not use the function keys to automatically send CW or voice files. N1MM+ will complete the TS (timestamp), Freq, and Mode fields based on your computer’s clock and the radio.



### FT8 / FT4:

N1MM+ will obtain all information needed from WSJT-X with the Standard interface or WSJT-X - ForEW1 with the Advanced interface.

Please address all questions, comments and issues to [w2huv@arri.net](mailto:w2huv@arri.net).