

Not1MM User Manual

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1 Not1MM

The world's number 1 unfinished contest logger. *According to my daughter Corinna.

Not1MM's interface is a blatant rip-off of N1MM. It is NOT N1MM and any problem you have with this software should in no way reflect on their software.

1.1 Not1MM. What is it?

Not1MM attempts to be a usable ham/amateur radio contest logger. It's written in Python 3.10+ and uses Qt6 framework for the graphical interface and SQLite for the database.

1.2 The Why

Currently, this exists for my own personal enjoyment. I recently retired after 35+ years working for 'The Phone Company', GTE Verizon Frontier. And being a Gentleman of Leisure, I needed something to do in my free time. I am a casual tester and could not find any contesting software for Linux that I wanted to use. There is **Tucnak**, available at [HTTP://tucnak.nagano.cz/](http://tucnak.nagano.cz/) which is very robust and mature. It just wasn't for me.

1.3 Target Environment

The primary target for this application is Linux. It may be able to run on other platforms, BSD and Windows. But I don't have a way, or desire, to directly support them. I've recently purchased an M4 Mac Mini, So I'll probably put more effort into that platform as well.

1.4 Current State, or Code Maturity

Not1MM is, at times, fairly stable. Recently, it would seem that I'm desperately trying to change that. The current focus of development is adding support for Multi Multi contest operations. It is something that I have no practical experience in. So you can expect the same quality of code fit and finish.

2 List of Should-Be-Working Contests

- General Logging
- 10 10 Fall CW
- 10 10 Spring CW
- 10 10 Summer Phone
- 10 10 Winter Phone
- ARI 40 80
- ARI DX
- ARRL 10M
- ARRL 160M
- ARRL DX CW, SSB
- ARRL Field Day
- ARRL RTTY Roundup
- ARRL Sweepstakes
- ARRL VHF
- CQ 160
- CQ WPX
- CQ World Wide
- CWOps CWT, CWO
- DARC Xmas
- DARC VHF
- EA Majistad CW
- EA Majistad SSB
- EA RTTY
- ES FIELD DAY HF
- ES OPEN HF
- Estonian LL Cup
- Helvetia
- IARU Field day
- IARU HF
- ICWC MST
- Japan International DX
- K1USN Slow Speed Test
- Labre RS Digi
- LZ DX
- NAQP
- Phone Weekly Test
- RAEM
- RAC Canada Day
- RandomGram
- REF CW, SSB
- RSGB 80M CC
- SAC CW, SSB
- SPDX
- Stew Perry Top band
- UK/EI DX
- Weekly RTTY
- Work All Germany
- Winter Field Day

2.1 Other not so Supported Contests

Of note, state QSO parties. I haven't worked any yet. And no one has submitted a PR adding one... So there you go. In the near future I'll probably add California, guess where I live, and the 4 states QSO party.

3 Installation

This section will hopefully get you started with installing Not1MM.

3.1 Prerequisites

Not1MM requires:

- Python 3.10+
- PyQt6
- libportaudio2
- libxcb-cursor0 (maybe... Depends on the distro)
- libxslt-devel (maybe... Depends on the distro)
- libxml2-devel (maybe... Depends on the distro)

You should install these through your distribution's package manager before continuing.

3.2 The Easy and Fast way to install or run the latest version

Step 1. Visit <https://docs.astral.sh/uv/> and install uv.

In short you run this in your terminal:

```
curl -LsSf https://astral.sh/uv/install.sh | sh
```

Step 2. Tell it to run not1mm:

```
uvx not1mm@latest
```

or install it:

```
uv tool install not1mm@latest
```

That's it... It will go out, fetch the latest version of not1mm, setup a python virtual environment, get all the needed python libraries, cache everything and run not1mm. The first time takes a minute, but each time after, it's lightning quick and it will automatically check for updates and run the latest version.

But wait... There's more. If your distro is old and you're stuck with an older version of python... Say 3.10. And you want to see what all the cool kids are using. But you don't want to corrupt your broke ol' system by downloading the newest Python version. No problem. You can tell uv to run not1mm with any version of Python you'd like. Let's say 3.14.

```
uvx --python 3.14 not1mm@latest
```

It'll download Python 3.14 into your virtual environment and run not1mm. Let's say I was an idiot and pushed a new version and didn't fully test it. This happens a-lot... We test in production. Or lets say you just want to see the pain that was back in 2023. No problem. Just tell it which version of not1mm you'd like to run.

```
uvx --python 3.10 not1mm==23.5.19
```

Pow! Enjoy the pain...

4 After the Install

You can now open a new terminal and type 'not1mm'. On it's first run, it may or may not install a lovely non AI generated icon, which you can later click on to launch the application.

4.1 You May or May Not Get a Warning Message Like

WARNING: The script not1mm is installed in '/home/mbridak/.local/bin', which is not on PATH. Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.

If you do, log out and back in or reboot.

4.2 Or this Fan Favorite

Warning: Ignoring XDG\SESSION\TYPE=wayland on Gnome.
Use QT_QPA_PLATFORM=wayland to run on Wayland anyway.
qt.qpa.plugin: Could not load the Qt platform plugin "xcb" even though it was found. This application failed to start because no Qt platform plugin could be initialized.
Reinstalling the application may fix this problem.

You can use your package manager to load **libxcb-cursor0**.
If that is not an option, you can export an environment variable and launch the app like this:

```
mbridak@vm:~$ export QT_QPA_PLATFORM=wayland; not1mm
```

For a more permanent solution, you can place the line:

```
export QT_QPA_PLATFORM=wayland
```

in your home directories .bashrc file. Then after logging out and back in you should be able to launch it normally.

4.3 Update Your CTY and SCP Files

Before operating in a contest, you might want to update the CTY and SCP files. You can do this by choosing **FILE » Update CTY** and **FILE » Update MASTER.SCP**

5 Various File Locations

5.1 Data Files

If your system has an ‘XDG_DATA_HOME’ environment variable set, the database and CW macro files can be found there. Otherwise they will be found at ‘yourhome/.local/share/not1mm’

5.2 Configuration Files

Configuration file(s) can be found at the location defined by

XDG_CONFIG_HOME

Otherwise they will be found at

yourhome/.config/not1mm

6 The Database

6.1 Why

The database holds... wait for it... data... I know, shocker right? A database can hold one or many contest logs. It also holds the station information, everything shown in the Station Settings dialog. You can have one database for the rest of your life. Filled with hundreds of contests you’ve logged. Or, you can create a new database to hold just one contest. You do you Boo.

6.2 The First One is Free

On initial launch, a database is created called ‘ham.db’. This and all future databases are located in the data directory mentioned above.

6.3 Why Limit Yourself?

You can create a new database by selecting **File » New Database** from the main window, and give it a snazzy name. Why limit yourself? Hell, create one every day for all I care. You can manage your own digital disaster.

6.4 Revisiting an Old Friend

You can select a previously created database by selecting: **File » Open Database**.

7 Station Settings Dialog

After initial run of the program or when creating a new database, you will need to fill out the Station Settings dialog that will pop up.

The screenshot shows a 'Settings' dialog box with the following fields and values:

Call	K6GTE		
Name	Michael Bridak		
Address	2854 W Bridgeport Ave.		
Address			
City	Anaheim	State	CA
		Zip	92804
Country	United States		
Grid Square	Dm13at	CQ Zone	3
		ITU Zone	6
License	General	Latitude	33.8125
		Longitude	-117.9583
Station TX/RX		Power	
Antenna		Ant. Height	a.s.l.
ARRL Section	ORG		
Rover QTH			
Club	Americal Radio Relay League		
Email address	michael.bridak@gmail.com		

Buttons: Cancel, OK

You can fill it out if you want to. You can leave our friends behind 'Cause your friends don't fill, and if they don't fill. Well, they're no friends of mine.

You can fill. You can fill. Everyone look at your keys. *You had to be around in the 80's*

7.1 Changing Station Information

Station information can be changed any time by going to **File » Station Settings** and editing the information.

8 Selecting a Contest

8.1 Selecting a New Contest

Select **File » New Contest**

New Contest

Select Contest Type for New Log

Log Type: CQ WPX CW

Start UTC: 2023-05-27 00:00:00

Operator: SINGLE-OP

Band: ALL

Power: LOW

Mode: CW

Overlay: N/A

Station: FIXED

Assisted: ASSISTED

Transmitter: ONE

Sent Exchange: # Exclude RST

Operators: K6GTE

Soapbox

Cancel OK

8.2 Selecting an Existing Contest as the Current Contest

Select **File » Open Contest**

Choose a Contest

Contest Name	Contest Start
cq_wpx_cw	2023-05-27 00:00:00
cq_wpx_ssb	2023-03-25 00:00:00

Cancel OK

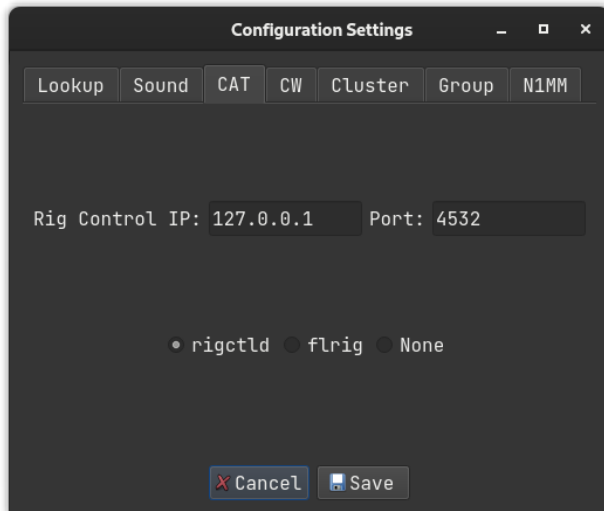
8.3 Editing Existing Contest Parameters

Edit the parameters of a previously defined contest by selecting it as the current contest. Then select **File » Edit Current Contest**. Click 'OK' to save the new values and reload the contest. 'Cancel' to keep the existing parameters.

9 Configuration Settings

To setup CAT control, CW keyer, and callsign lookups select **File » Configuration Settings**.

The tabs for groups and N1MM are disabled and are for future expansion.



9.1 Callsign Lookup

Two services are supported: QRZ and HamQTH. Username and password are required so enter that information here.

9.2 Soundcard

Choose the sound output device for the voice keyer.

9.3 CAT Control

Under the 'CAT' tab, you can choose one of the following:

- 'rigctld' normally with an IP of '127.0.0.1' and a port of '4532'
- 'flrig' normally with an IP of '127.0.0.1' and a port of '12345'
- 'None' is always an option (but is it really?).

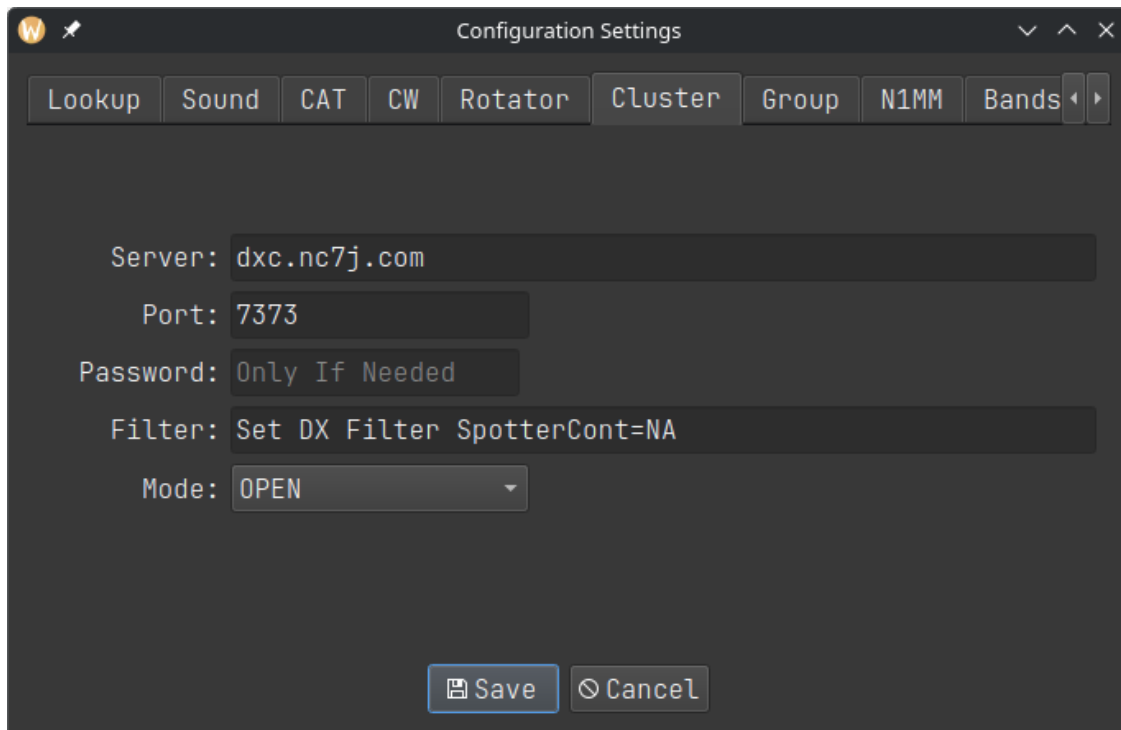
A small transceiver icon changes color to indicate the CAT status. Green: Connected; Red: Not connected; Grey: Neither.

9.4 CW Keyer Interface

Under the 'CW' tab, there are three options:

- 'cwdaemon' normally uses IP '127.0.0.1' and port '6789'
- 'pywinkeyer' normally uses IP '127.0.0.1' and port '8000'
- 'CAT' can be used if your radio supports it. Morse characters are sent via 'rigctld'.

9.5 Cluster



Under the ‘Cluster‘ tab you can change the default AR Cluster server, port, and filter settings used for the bandmap window.

9.6 N1MM Packets

Work has started on N1MM UDP packets. So far just RadioInfo, contactinfo, contactreplace and contact-delete.

Configuration Settings

Lookup Sound CAT CW Cluster Group **N1MM** Bands

☒ Send N1MM packets

Station Name: 20M CW Tent Operator Name: Bernie

Radio: ☒ 127.0.0.1:12060

Contact: ☒ 127.0.0.1:12060

Lookup: ☐ 127.0.0.1:12060

Score: ☐ 127.0.0.1:12060

When entering IP and corresponding Port, connect them with a colon ':' as shown above. You can enter multiple pairs on the same line by separating them with a space ' '.

9.7 Bands

You can define which bands appear in the main window. Those with checkmarks will appear. Those without will not.

Configuration Settings

Lookup Sound CAT CW Cluster Group N1MM **Bands**

<input type="checkbox"/> 160M	<input checked="" type="checkbox"/> 6M
<input type="checkbox"/> 80M	<input checked="" type="checkbox"/> 2M
<input type="checkbox"/> 40M	<input checked="" type="checkbox"/> 1.25M
<input type="checkbox"/> 20M	<input checked="" type="checkbox"/> 70cm
<input type="checkbox"/> 15M	<input checked="" type="checkbox"/> 33cm
<input type="checkbox"/> 10M	<input checked="" type="checkbox"/> 23cm

9.8 Options

A variety of features can be enabled in the Options tab:

- Use Enter Sends Message (ESM) and configure its function keys.
- Allow the program to access Call History info.
- Periodically send XML score to an online scoreboard.
- Clear the input fields in S&P mode when the VFO frequency changes.

The screenshot shows the 'Configuration Settings' dialog box with the 'Options' tab selected. The dialog has a dark theme and a title bar with a yellow 'W' icon. The tabs at the top are 'Lookup', 'Sound', 'CAT', 'CW', 'Cluster', 'N1MM', 'Bands', and 'Options'. The 'Options' tab contains the following settings:

- ☒ Enable ESM
 - CQ: F1
 - His Call: F2
 - Exchange: F3
 - AGN: F9
 - My Call: F5
 - QRZ: F4
 - QS0 B4: DISABLED
- ☒ Use Call History
 - ☒ Use RTC score reporting
 - URL: <https://hamscore.com/postxml/>
 - Call Sign: k6gte
 - Score posting interval (minutes): 2

At the bottom of the dialog are 'Save' and 'Cancel' buttons.

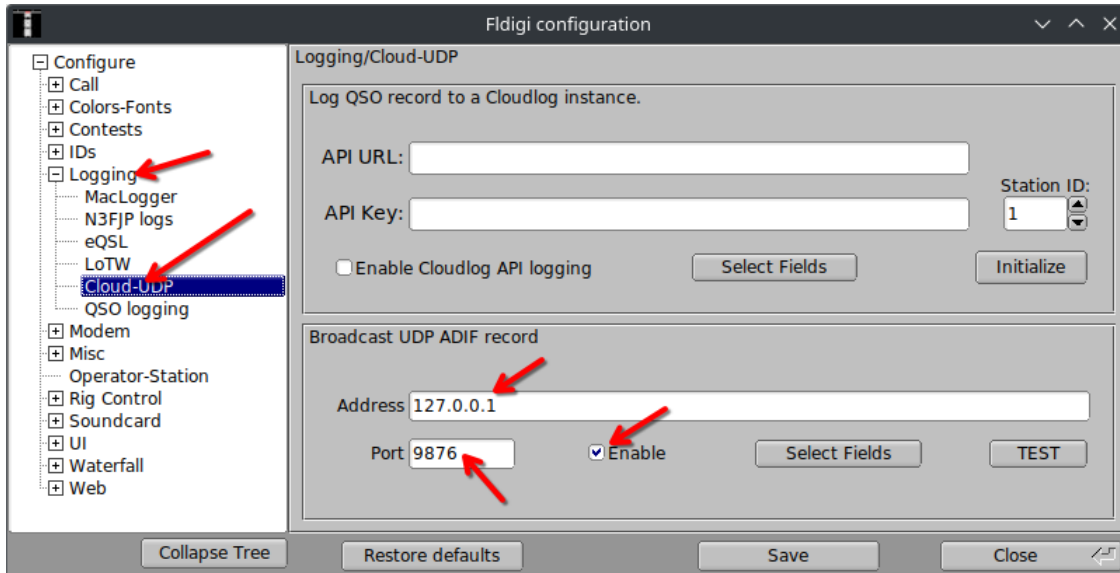
Three real-time scoreboards are supported:

- Real Time Contest Server at hamscore.com
- Contest Online ScoreBoard at contestonlinescore.com
- Live Contest Score at contest.run

10 Logging Digital Contacts

Not1MM listens for WSJT-X UDP traffic on the Multicast address 224.0.0.1:2237. This should work by default with Not1MM. That's good because I'm lazy.

Not1MM watches for fldigi QSOs by monitoring UDP traffic on 127.0.0.1:9876.

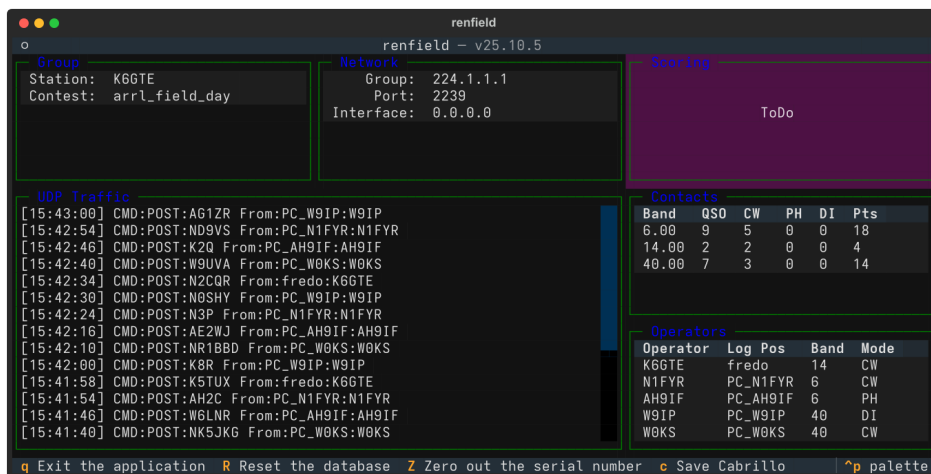


The F1–F12 function keys are sent to fldigi via XMLRPC. Fldigi is placed into TX mode, the message is sent, and a ^r is appended to place it back into RX mode.

Unlike WSJT, fldigi needs configuration of some settings. The XMLRPC interface needs to be active. In fldigi's config dialog, go to **CONTESTS » General » CONTEST** and select Generic Contest. Make sure the Text Capture Order field says CALL EXCHANGE.

11 Operating Multi-Multi

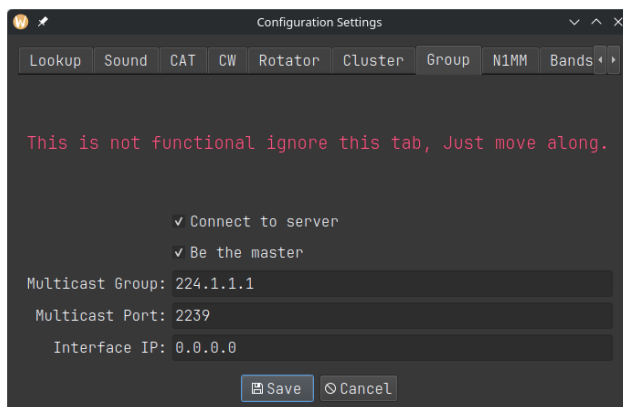
Work is underway on Multi-Multi contest operations. There is a companion project **renfield** <https://github.com/mbridak/renfield> that will be needed for this. The idea is to have a separate slave server running, preferably on another computer that's on the same network as the contesting PCs. This server will handle all the database CRUD operations. It will assign serial numbers, check for duplicate contacts, and generate a Cabrillo file.



This is a very lightweight terminal application that can be easily hosted on a Raspberry Pi or similar device. In a pinch it can be run alongside Not1MM on one of the contesting machines but use caution. You could even use this while operating alone as an automated backup. A copy of the log would be available in the event of a logging computer failure.

11.1 Network Settings for Multi-Multi

In the configuration dialog under the group tab, select Connect to server.



One computer needs to be the master station. The master station will tell the renfield server what contest is being run.

11.2 Contest Settings for Multi-Multi

In Contest Settings, if the Operator is set to "MULTI-OP" and the Transmitter category is not "ONE" or "SWL", Not1MM will ask the renfield server for serial numbers and dupe checks.

Log Type	HELVETIA
Start UTC	2025-09-28 00:00:00
Operator	MULTI-OP
Band	ALL
Power	LOW
Mode	CW
Overlay	N/A
Station	FIXED
Assisted	ASSISTED
Transmitter	UNLIMITED
Sent Exchange	#
	Exclude RST

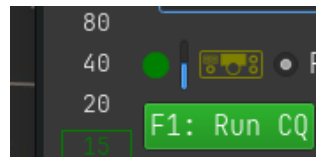
12 Sending CW

12.1 Sending CW Macros

Predefined CW messages can be sent with function keys F1–F12. See the following section on Editing Macro Keys.

12.2 Auto CQ

Pressing ‘SHIFT-F1’ activates the Auto CQ mode. The program is placed in the Run state and the F1 macro is sent then resent after the Auto CQ delay interval. A visual indicator appears to the upper left of the F1 macro key to alert that Auto CQ is active. A small progress bar indicates when F1 will fire next.



12.2.1 Setting the delay

The Auto CQ delay interval can be changed in the ‘Options’ tab of the Configuration settings. This value is the sum of the F1 macro duration *plus* the desired pause time in which stations can respond. If the program is in S&P mode when Auto CQ is enabled, it will automatically switch to RUN mode.

12.3 Sending CW Free Form

Freeform text is sent by pressing **CTRL-SHIFT-K**. An entry field appears at the bottom of the window for typing from the keyboard terminal. The text is sent by either pressing **CTRL-SHIFT-K** or using the Enter key to close the entry field.

13 Editing Macro Keys

To edit the macro keys, choose **File » Edit Macros**. This will open the system default text editor and display the current active macros. The current operating mode (CW, SSB or RTTY) and contest will automatically select the corresponding macro file. Each contest and mode has its own unique copy of the macros – these are not global settings. When finished editing, save the file and close the editor.

Alternatively, macro files can be directly edited outside the not1mm program. On Linux, individual contest directories are located in ‘local/share/not1mm/’. Refer to the **Data Files** section above.

After editing and saving the macro file, any changes are enabled by toggling between the ‘Run’ and ‘S&P’ states.

13.1 Macro Substitutions

The macro instruction set is shown below.

Macro	Substitution
{MYCALL}	Send my station callsign.
{HISCALL}	Send the callsign of the other station.
{SNT}	Send 5NN (cw) or 599 (ssb)
{SENTNR}	Send the SentNR field.
{EXCH}	Send the Exchange field; contest must be defined.
{PREVNR}	Send the previous serial number.
{OTHER1}	Send the SentNR/Name field without altering it.
{OTHER2}	Send the Comment field without altering it.
{LOGIT}	Log the contact after macro pressed.
{TX}	Switch to transmit mode (PTT ON) - NOTE: the ‘Sends’ macros will toggle PTT ON/OFF
{RX}	Switch to receive mode (PTT OFF).
{TX/RX}	Toggle between transmit/receive (PTT) mode.
{MARK}	Highlight the current call in the band map.
{SPOT}	Spot the current call to the cluster.
{RUN}	Change to Run mode.
{SANDP}	Change to S&P mode.
{WIPE}	Clear all the input fields.
#	Sends serial number.
{VOICE1} - {VOICE10}	Uses ‘rigctlid’ to send voice macros stored in the radio.
RI:	Send Rig specific codes. See Macro control of radio functions.
^M	in a RTTY macro will be replaced with a newline character.

13.2 Macro Use with Voice

VOICE1–VOICE10

If you use rigctlid and your radio supports it, you can use the macros VOICE1, VOICE2, etc to send the recorded audio messages stored in the radio.

13.2.1 Voice macro .wav files

The macros used with voice can also linked to .wav files. Specify the filename, but exclude the .wav extension. The filename must be lowercase and enclosed in brackets. For example ‘[cq]’ will play ‘cq.wav’, ‘[again]’ will play ‘again.wav’. The .wav files are stored in the data directory. See **Various data file locations** above for the location of these data files. For me, the macro ‘[cq]’ will play

```
/home/mbridak/.local/share/not1mm/K6GTE/cq.wav
```

The default .wav files are not the ones you will want to use. They sound like an idiot. Use a program like Audacity or similar to record new .wav files in your own voice.

NATO phonetic .wav files are also provided for each letter and number. Their use can be illustrated with an example from the CQWW SSB Contest operating from Zone 3. The callsign K5TUX is entered and the following macro key is activated: 'HISCALL SNT SENTNR'. The program then sends this sequence of audio phonetics: KILO FIVE TANGO UNIFORM X-RAY FIVE NINE NINE THREE.

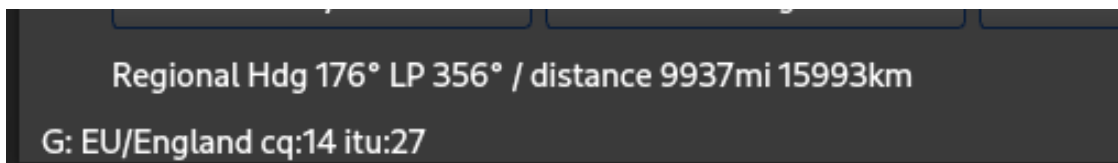
13.2.2 Macro control of radio functions

Macros can also be used to send CAT/CI-V control codes to the radio. To make use of this feature, start the command with the letters "RI" and a colon, followed by the desired command. If the command is ASCII text (for example, for Yaesu radios), just enter the text after "RI:". For binary codes, enter hexadecimal values separated by spaces.

For example, to enable the auto-notch filter on a Yaesu FT-710, the command would be "RI:BC01;". To do the same on an Icom 7300, the command would be something like "RI:FE FE 94 E0 16 41 01 FD". Refer to the operating manual or online sources for the correct command syntax. Note that CAT/CI-V command macros are only available when either FLRig or rigctld (HamLib) are being used for transceiver control.

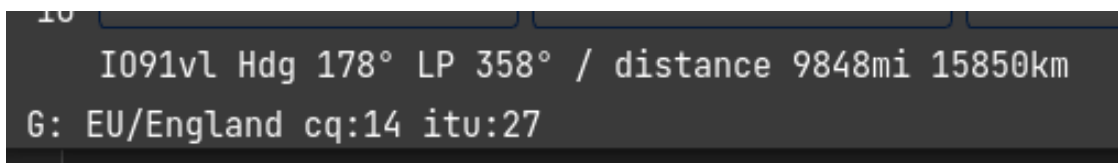
14 **cty.dat and QRZ for Distance and Bearing**

When a callsign is entered, a lookup is done in the cty.dat file to identify the country of origin, geographic center, CQ zone, and ITU region. Great circle calculations are then done to determine the heading and distance from the home grid square to the geographic center of the DX station. This information is displayed at the bottom left.



Regional Hdg 176° LP 356° / distance 9937mi 15993km
G: EU/England cq:14 itu:27

Next, a request is made to qrz.com for the grid square of the callsign. If there is a response, more accurate distance and bearing numbers are displayed. The 'Regional' text is replaced with the station's specific 6-digit grid square as shown below.



I091vI Hdg 178° LP 358° / distance 9848mi 15850km
G: EU/England cq:14 itu:27

15 **Other Uses for the Callsign Field**

The SPACE bar must be pressed to enable any of the following functions.

15.1 **Frequency**

Frequency Enter a frequency in kHz. This changes the active logging band. If CAT control is enabled, the specified frequency will change the transceiver VFO.

15.2 **Modes**

CW, SSB, RTTY Sets the mode being logged. If CAT control is enabled, the mode changes on the radio.

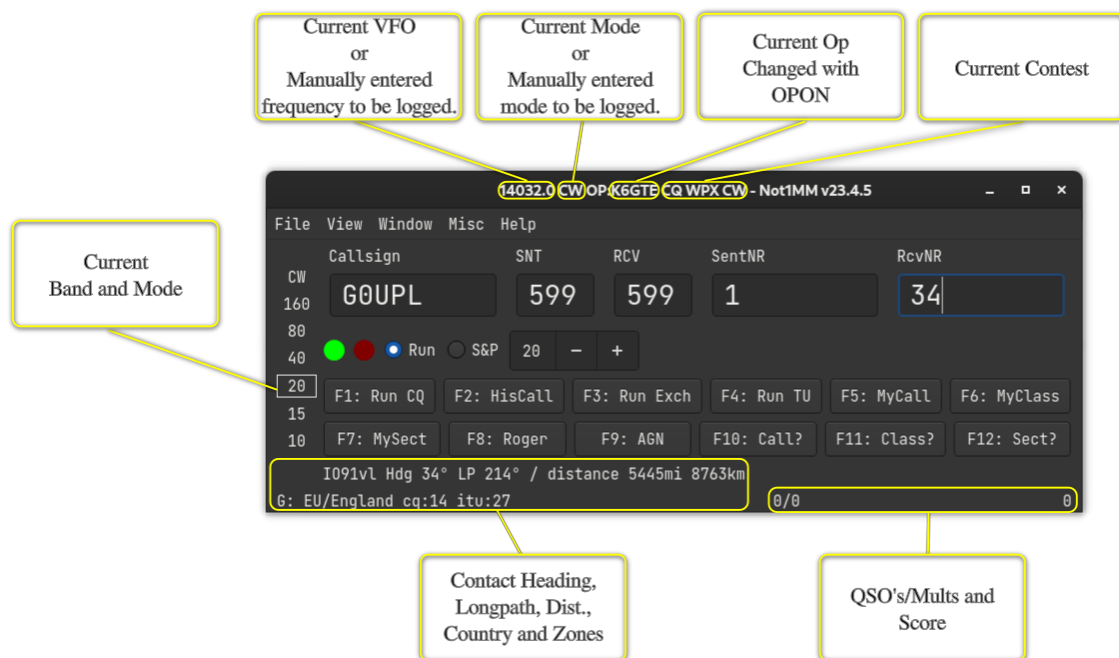
15.3 **Change Operator**

OPON Specify the operator currently logging.

Important: Press the SPACE bar after making any of the above entries.

16 The Windows

16.1 The Main Window



16.1.1 Keyboard Commands

Key	Result
Esc	Stop the cwdaemon from sending Morse characters.
PgUp	Increase the CW sending speed.
PgDown	Decrease the CW sending speed.
Arrow-Up	Jump to the next spot above the current VFO cursor in the bandmap window (CAT Required).
Arrow-Down	Jump to the next spot below the current VFO cursor in the bandmap window (CAT Required).
TAB	Move cursor to the right one field.
Shift-Tab	Move cursor left One field.
SPACE	When in the callsign field, move the input to the next field in the exchange.
Enter	Submit entered data to the log, unless ESM is enabled.
F1-F12	Send (CW/RTTY/Voice) macros.
CTRL-S	Spot Callsign to the cluster.
CTRL-M	Highlight Callsign in the bandmap window.
CTRL-G	Tune to a spot matching partial text in the callsign entry field (CAT Required).
CTRL-SHIFT-K	Open CW text input field.
CTRL-=	Log the contact without sending the ESM macros.
CTRL-W	Clear the input fields of any text.
ALT-B	Toggle the bandmap window.
ALT-C	Toggle the Check Partial window.
ALT-L	Toggle the QSO Log window.
ALT-R	Toggle the Rate window.
ALT-S	Toggle the Statistics window.
ALT-V	Toggle the VFO window.

16.2 The Log Window

Window » Log Window

The Log Window gets updated automatically when a contact is entered. The top half is a chronological list of all contacts.

Log Display												
YYYY-MM-DD HH:MM:SS	Call	Freq	Snt	Rcv	M1	ZN	M2	PFX	PTS			
2023-03-17 13:39:03	K5TUX	14032.25	599	599	4		K5	0				
2023-03-17 14:14:23	W1AW	14032.25	599	599	5		W1	0				
2023-03-17 14:37:00	C0FEE	14032.25	599	599	0		C0	0				
2023-03-17 16:47:09	W1AW	14032.25	599	599	5		W1	0				
2023-03-17 16:56:55	W2AW	14032.25	599	599	5		W2	0				
YYYY-MM-DD HH:MM:SS	Call	Freq	Snt	Rcv	M1	ZN	M2	PFX	PTS			
2023-03-10 20:10:38	K6GTE	14230.2	59	59	3		K6	0				
2023-03-15 14:23:45	K6GTE	14062.0	59	59	3		K6	0				

The bottom half of the Log Window displays logged contacts sorted by complete or partial matches to characters in the call entry field. The columns displayed in the log window depend on the current active contest.

16.2.1 Editing a Contact

W	14032.25	599	5
Call	Freq	Snt	
W	14062.0		5

Double-click a cell in the log window to edit its contents. Right-clicking on a cell brings up the edit dialog.

Edit Contact

Call

G0UPL

TimeStamp

2023-03-23 18:50:23

Rx

14250.0

Tx Freq

14250.0

Mode

USB

Contest

CQ-WPX-SSB

RST Sent

59

RST RCV

59

Country

G

Station Call

K6GTE

Name

QTH

Comment

Nr

143

Nr Sent

2

Points

3

Power

0

Zone

14

Section

Mult

☒

Band

14

Check

0

Prec

Mult

☐

WPX

G0

Exchange

Run 1/2

Mult

☐

Radio

Grid

Op

K6GTE

Misc

Rover QTH

Delete

Cancel

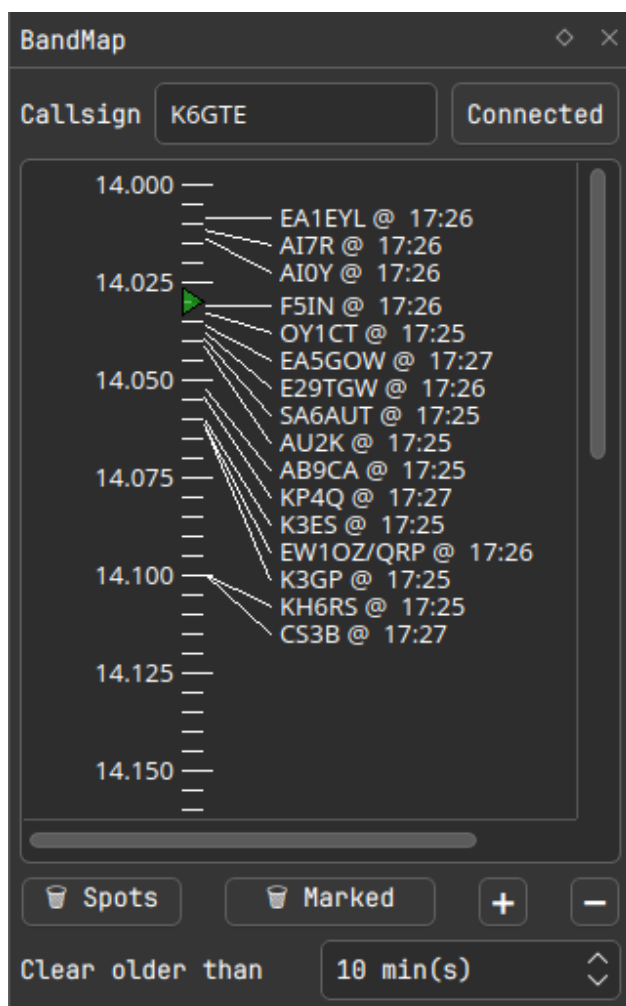
OK

You cannot directly edit the multiplier status of a contact. See the next section on recalculating multipliers. When editing a logged callsign, it's a good idea to check if other data such as the WPX field are still valid.

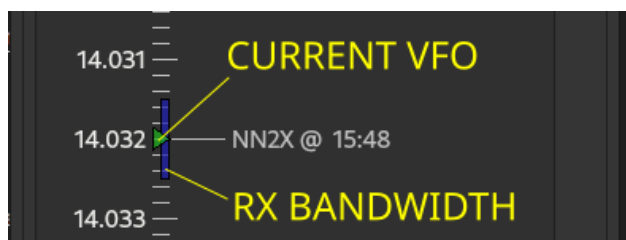
16.3 The Bandmap Window

Window » Bandmap⁶

The bandmap displays spots drawn from the Cluster node specified in the Configuration Settings. Enter your callsign and press the Connect button. When CAT is enabled, the bandmap will track with the VFO. This is still a work in progress.



The VFO frequency is indicated with a small green triangle above the tick marks. A vertical blue bar displays the receive filter bandwidth if available via CAT.



Clicking on a spot sets the VFO and populates the callsign field. Previously worked callsigns are displayed in red. Callsigns marked with CTRL-M are highlighted in yellow. A small icon after the callsign

indicates the mode as follows:

Primary Modes:

○ CW

⊙ FT*

⊙ RTTY

^ Beacon

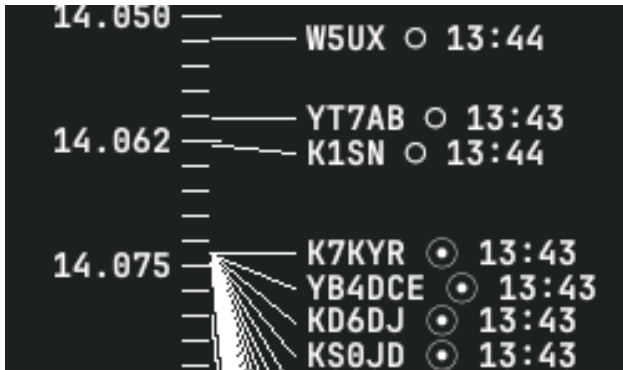
@ Everything else

Secondary Modes:

[P] POTA

[S] SOTA


The icon is followed by the UTC time of the spot. The screenshot below shows CW and FT8 spots on the 20m band.



16.4 The Check Partial Window

Window » Check Partial Window

As a callsign is entered, the Check Window displays potential matches from the MASTER.SCP file, the local log, and recent telnet cluster spots. The MASTER.SCP column shows candidates with 3 or more matching characters indexed from the start of the callsign string. The local log and telnet columns match character strings of any length. Clicking on any of these candidate callsigns will automatically populate the callsign field.



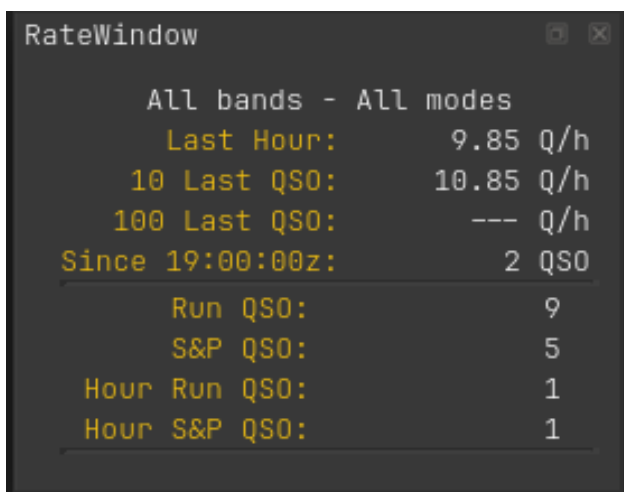
The screenshot shows a window titled "CheckWind" with a table containing three columns: "Log", "Master", and "Telnet". The "Log" column contains the text "LW2D0". The "Master" column contains a list of callsigns: "LW2DH", "LW2DHD", "LW2DJM", "LW2DLY", "LW2D0", "LW2D0D", "LW2DX", "LW2EDM", "LW2EIY", "LW2EKY", and "LW2HAB". The "Telnet" column contains the text "LW2D0".

Log	Master	Telnet
LW2D0	LW2DH	LW2D0
	LW2DHD	
	LW2DJM	
	LW2DLY	
	LW2D0	
	LW2D0D	
	LW2DX	
	LW2EDM	
	LW2EIY	
	LW2EKY	
	LW2HAB	

16.5 The Rate Window

Window » Rate Window

This window contains QSO rates and counts.



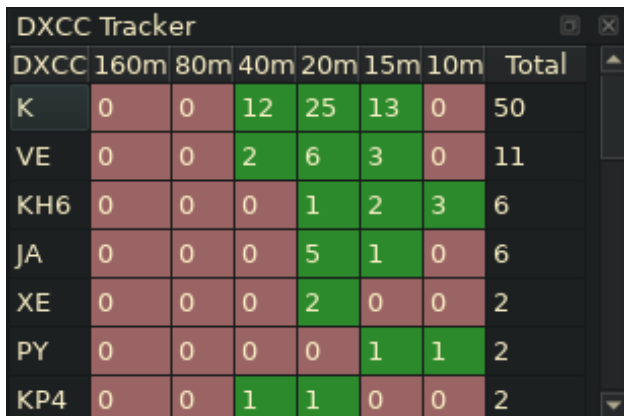
The screenshot shows a window titled "RateWindow" with a dark background and yellow text. It displays QSO rates and counts for "All bands - All modes".

All bands - All modes	
Last Hour:	9.85 Q/h
10 Last QSO:	10.85 Q/h
100 Last QSO:	--- Q/h
Since 19:00:00z:	2 QSO
<hr/>	
Run QSO:	9
S&P QSO:	5
Hour Run QSO:	1
Hour S&P QSO:	1

16.6 The DXCC window

Window » DXCC

This window displays a table of worked DXCC entities arranged by band. When optional automatic scrolling is enabled, entering a callsign will scroll to the corresponding DXCC entity prefix.



The screenshot shows a window titled "DXCC Tracker" with a dark background and yellow text. It displays a table of worked DXCC entities arranged by band.

DXCC	160m	80m	40m	20m	15m	10m	Total
K	0	0	12	25	13	0	50
VE	0	0	2	6	3	0	11
KH6	0	0	0	1	2	3	6
JA	0	0	0	5	1	0	6
XE	0	0	0	2	0	0	2
PY	0	0	0	0	1	1	2
KP4	0	0	1	1	0	0	2

16.7 The Zone window

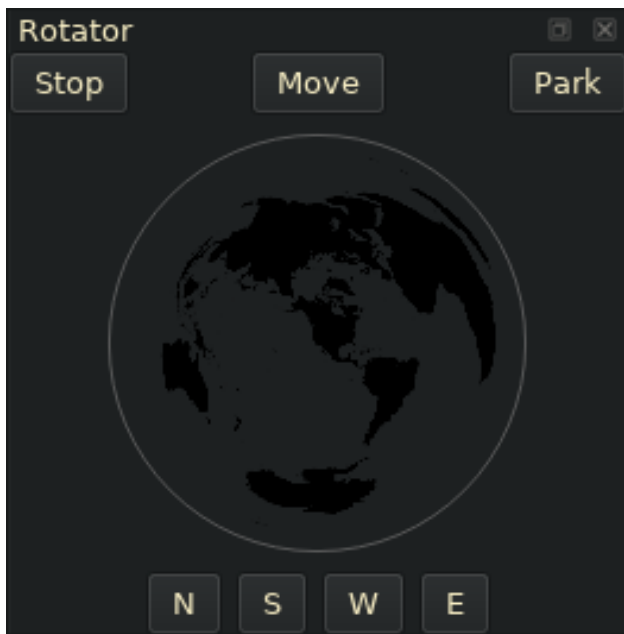
Window » Zone

This window functions the same way as the DXCC window, but for CQ or ITU zones. When automatic scrolling is enabled, check the appropriate radio button to select CQ or ITU zones as determined by the DX contest requirements.

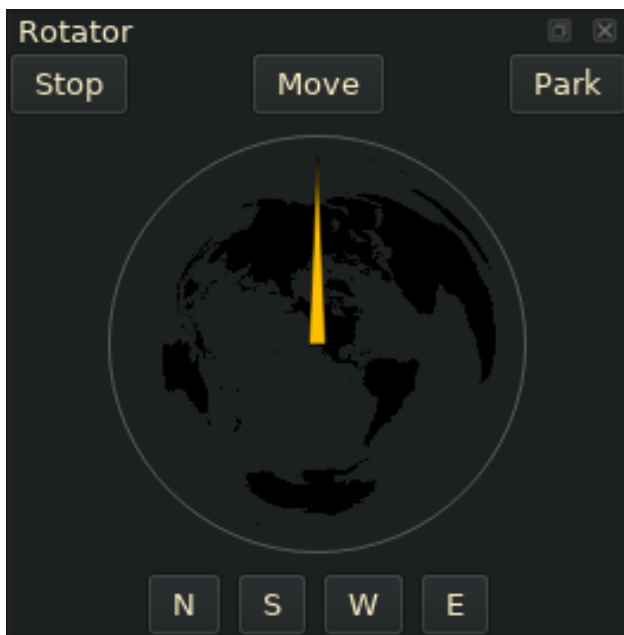
16.8 The Rotator Window (Work In Progress)

Window » Rotator

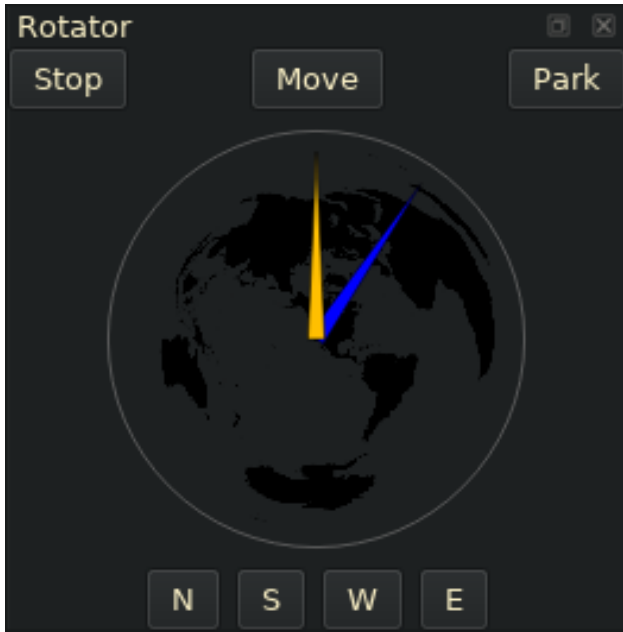
The Rotator window is a work in progress. The Rotator window relies on the functionality of the rotctld daemon. It connects to rotctld on address 127.0.0.1 and port 4533. You can change this if needed in the configuration dialog under the rotator tab. If started and there is no connection, you will see this:



Once there is a connection to rotctld, the current azimuth of the antenna is obtained and you will see a direction needle appear:



Once a call is entered and the bearing to contact is calculated you will see a needle appear:



At this time you can click on the 'Move' button to point your antenna at the contact. A list of other buttons follows below.

Move: Rotates the antenna at the target.

Stop: Stops the current movement.

Park: Parks the antenna.

N,S,W,E: Points the antenna to one of the 4 cardinal directions.

You can also move the rotator by clicking in the globe where you want the antenna to point.

16.9 The Remote VFO Window

When operating a remote station, the transceiver VFO can be controlled using inexpensive hardware in tandem with the Remote VFO window. A description of the hardware can be found at the following link:

https://github.com/mbridak/not1mm/blob/master/usb_vfo_knob/vfo.md

Communicate with it using the VFO Window: **Window » VFO**



17 Cabrillo

Click on **File » Generate Cabrillo**

The file will be placed in your home directory. The name will be in the format of:

```
'StationCall'_'ContestName'_'CurrentDate'_'CurrentTime'.log
```

So for me, it would look like:

```
K6GTE\_CANADA-DAY\_2023-09-04\_07-47-05.log
```

18 ADIF

File » Generate ADIF

Boom... ADIF

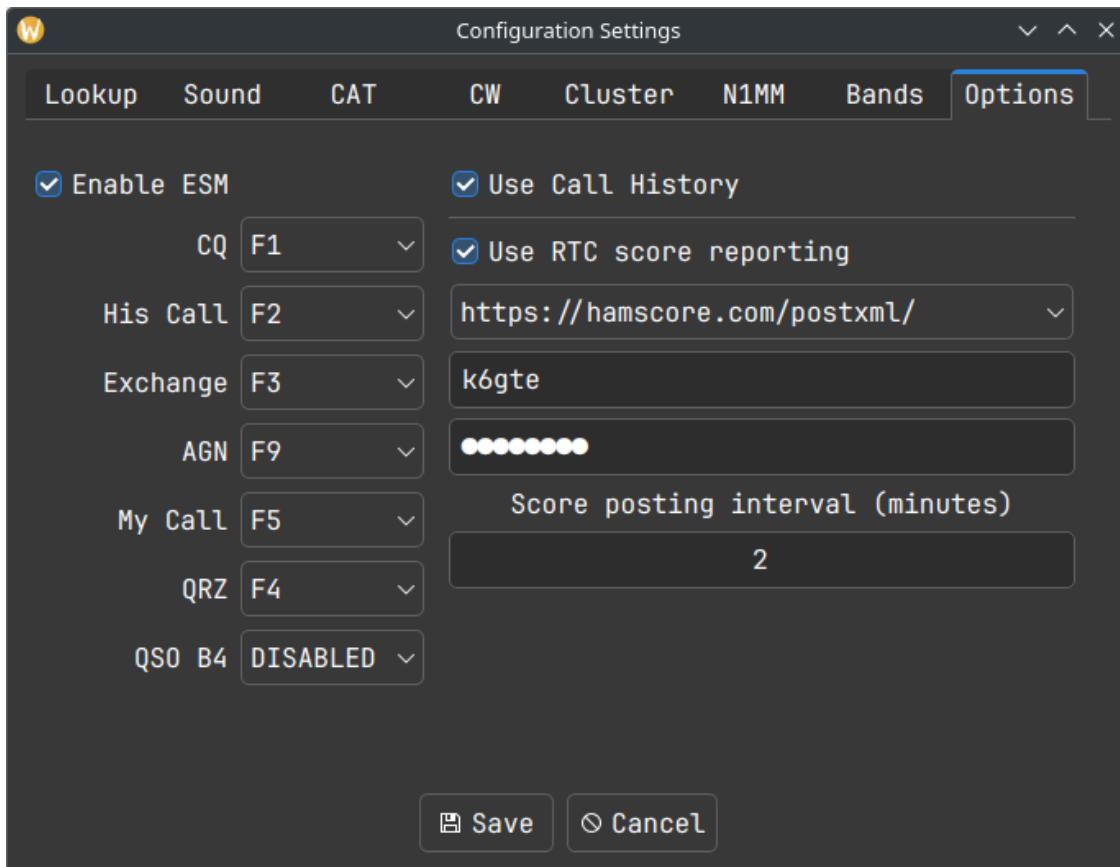
```
'StationCall'_'ContestName'_'Date'_'Time'.adi
```

19 Recalculate Mults

The program automatically updates the score as each new entry is logged. There may be a situation where a station has been logged incorrectly. This QSO can be easily edited as described above, but this may add or remove a multiplier. To remedy this and correct the score, a Recalculate Mults function is located in the Misc menu. The Cabrillo/ADIF files must be regenerated.

20 ESM

I caved and started working on ESM or Enter Sends Message. To test it out you can go to **FILE » Configuration Settings**



The screenshot shows the 'Configuration Settings' dialog box with the 'Options' tab selected. The 'Enable ESM' checkbox is checked. Below it, several function keys are mapped to specific actions: CQ to F1, His Call to F2, Exchange to F3, AGN to F9, My Call to F5, QRZ to F4, and QS0 B4 to DISABLED. To the right, the 'Use Call History' checkbox is also checked, and 'Use RTC score reporting' is checked. The URL for score reporting is set to 'https://hamscore.com/postxml/'. Below this, the call sign 'k6gte' is entered. A visual representation of the function keys shows that F1 through F5 and F9 are highlighted in green, while F2, F3, F4, and F6 are not. The 'Score posting interval (minutes)' is set to 2. At the bottom, there are 'Save' and 'Cancel' buttons.

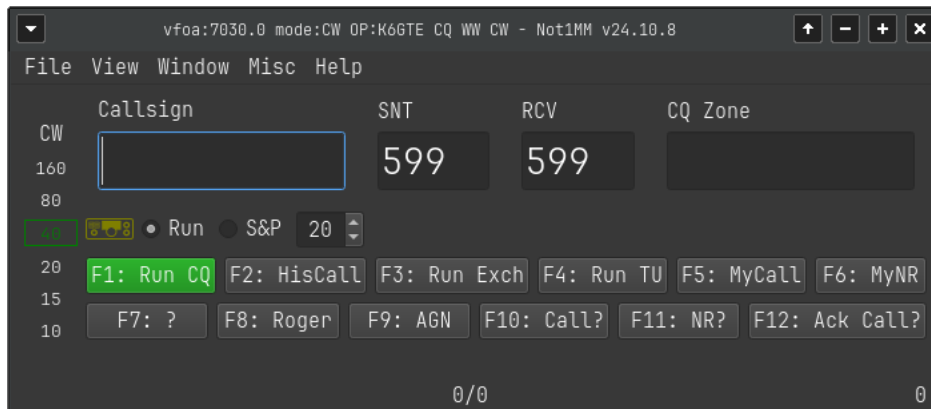
Function	Key
Enable ESM	<input checked="" type="checkbox"/>
Use Call History	<input checked="" type="checkbox"/>
Use RTC score reporting	<input checked="" type="checkbox"/>
Score reporting URL	https://hamscore.com/postxml/
Call sign	k6gte
Score posting interval (minutes)	2

Check the mark to Enable ESM and tell it which function keys do what. The keys will need to have the same function in both Run and S&P modes. The function keys will highlight green depending on the state of the input fields. The green keys will be sent if you press the Enter key. You should use the Space bar to move to another field.

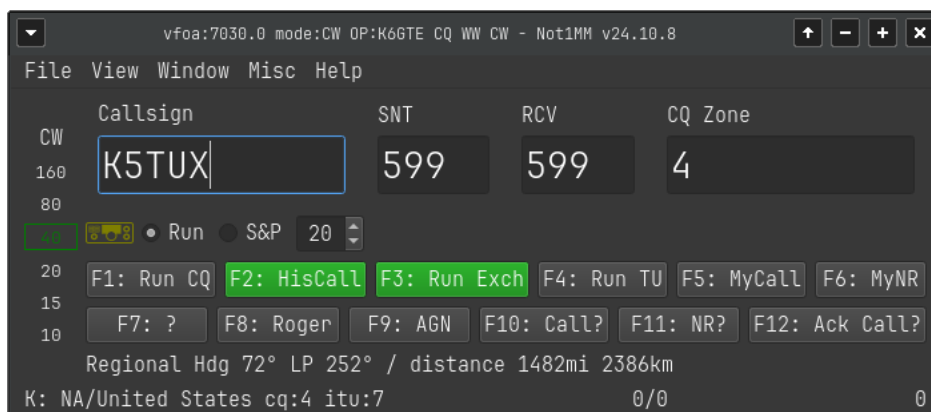
The contact will be automatically logged once all the needed info is collected and the QRZ (for Run) or Exchange (for S&P) is sent.

20.1 Run States

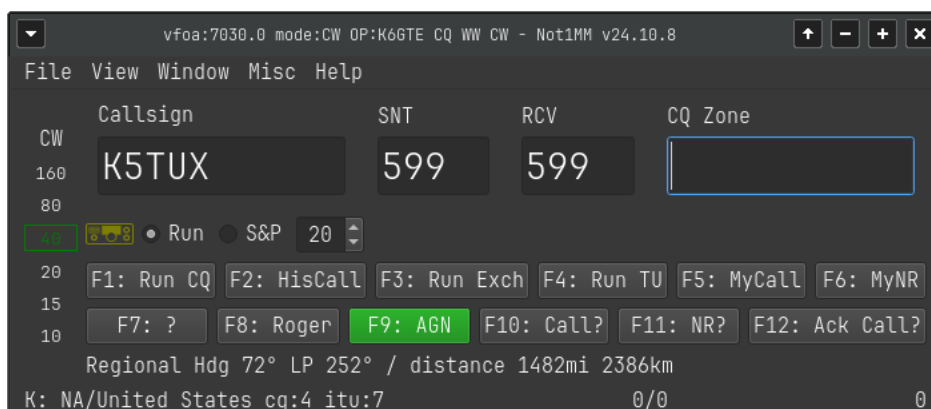
20.1.1 CQ



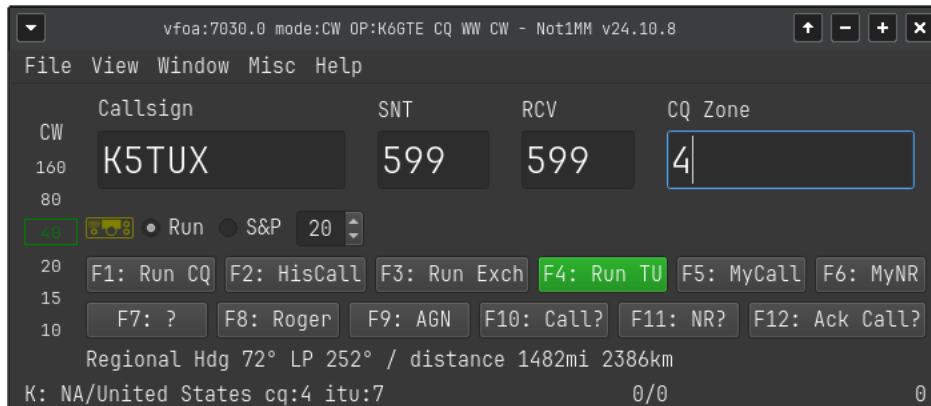
20.1.2 Call Entered Send His Call and the Exchange



20.1.3 Empty Exchange Field Send AGN Till You Get It

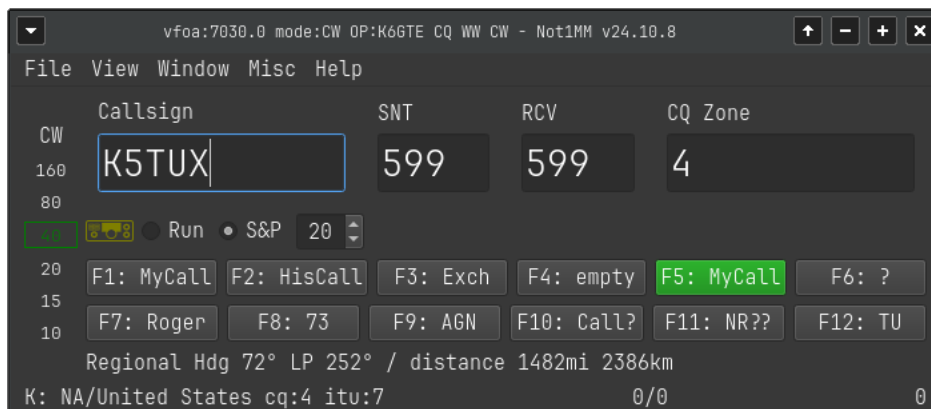


20.1.4 Exchange Field Filled, Send TU QRZ and Logs it

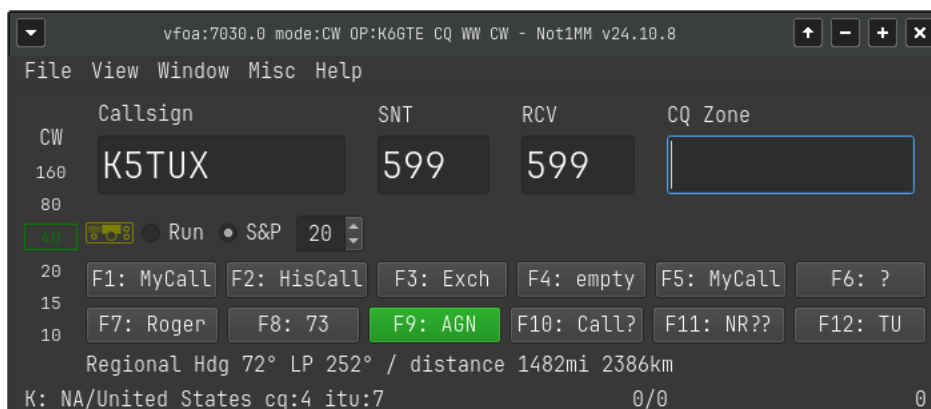


20.2 S&P States

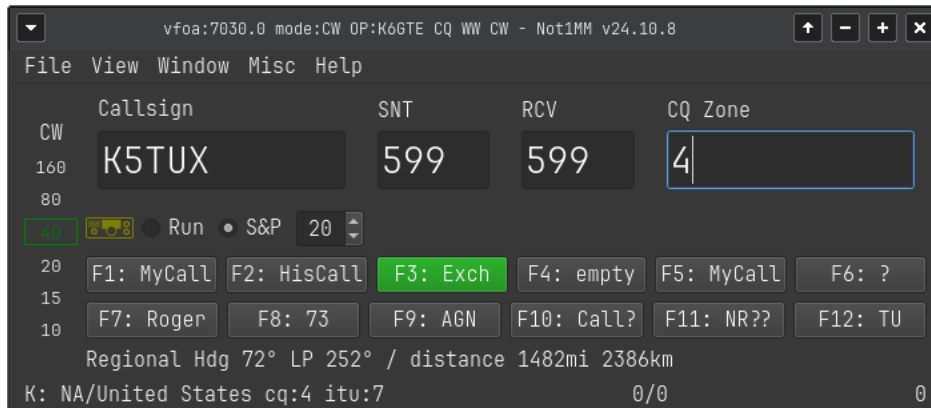
20.2.1 With His Call Entered, Send Your Call



20.2.2 If No Exchange Entered Send AGN

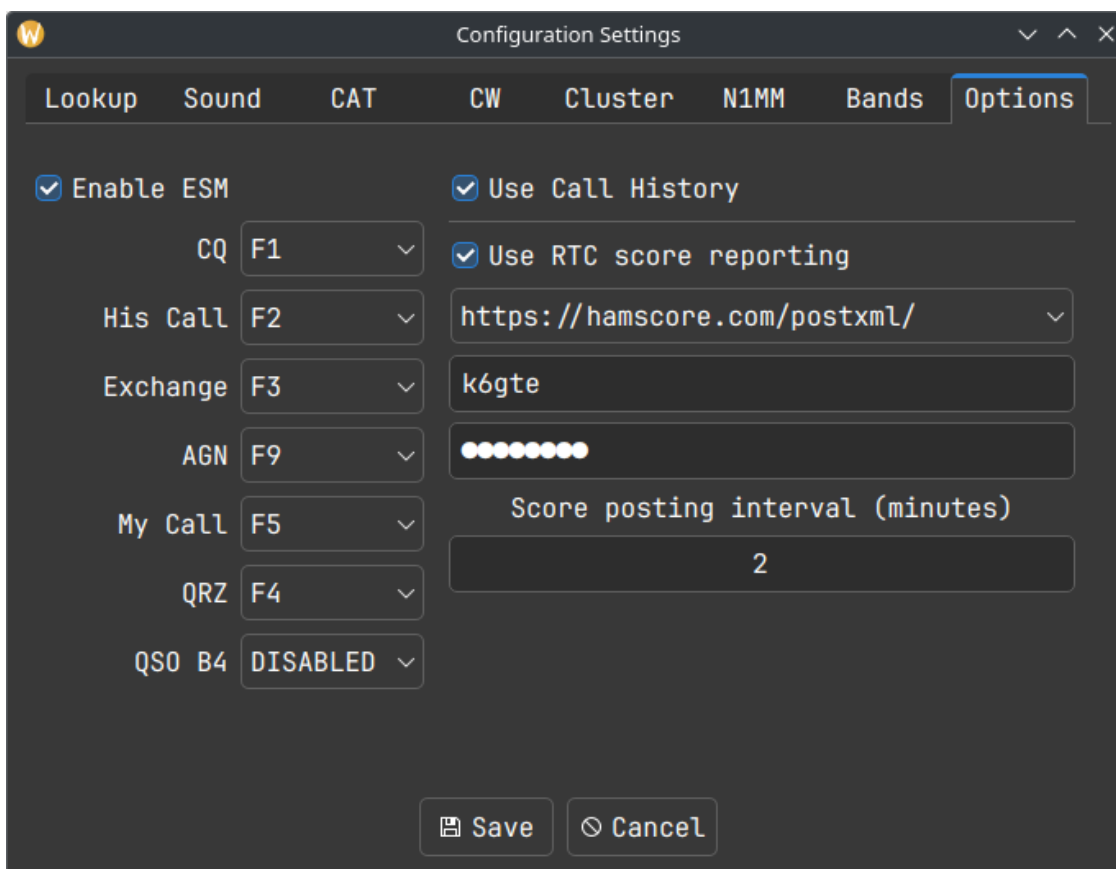


20.2.3 With Exchange Entered, Send Your Exchange and Log it



21 Call History Files

To use Call History files, go to **FILE » Configuration Settings**.



The screenshot shows the 'Configuration Settings' dialog box with the 'Options' tab selected. The 'Enable ESM' checkbox is checked. The 'Use Call History' checkbox is also checked. Below it, the 'Use RTC score reporting' checkbox is checked. The 'CQ' dropdown is set to 'F1'. The 'His Call' dropdown is set to 'F2'. The 'Exchange' dropdown is set to 'F3'. The 'AGN' dropdown is set to 'F9'. The 'My Call' dropdown is set to 'F5'. The 'QRZ' dropdown is set to 'F4'. The 'QS0 B4' dropdown is set to 'DISABLED'. The 'URL' field contains 'https://hamscore.com/postxml/'. The 'k6gte' field is visible. The 'Score posting interval (minutes)' field is set to '2'. The 'Save' and 'Cancel' buttons are at the bottom.

Option	Value
Enable ESM	<input checked="" type="checkbox"/>
Use Call History	<input checked="" type="checkbox"/>
Use RTC score reporting	<input checked="" type="checkbox"/>
CQ	F1
His Call	F2
Exchange	F3
AGN	F9
My Call	F5
QRZ	F4
QS0 B4	DISABLED
URL	https://hamscore.com/postxml/
k6gte	k6gte
Score posting interval (minutes)	2

Place a check in the 'Use Call History' box. Call history files are very specific to the contest you are working. Example files can be obtained from <https://n1mmwp.hamdocs.com/mmfiles/categories/callhistory/> website. They have a searchbox so you can find the contest you are looking for. If you are feeling masocistic, you can craft your own. The general makeup of the file is a header defining the fields to be used, followed by lines of comma separated data.

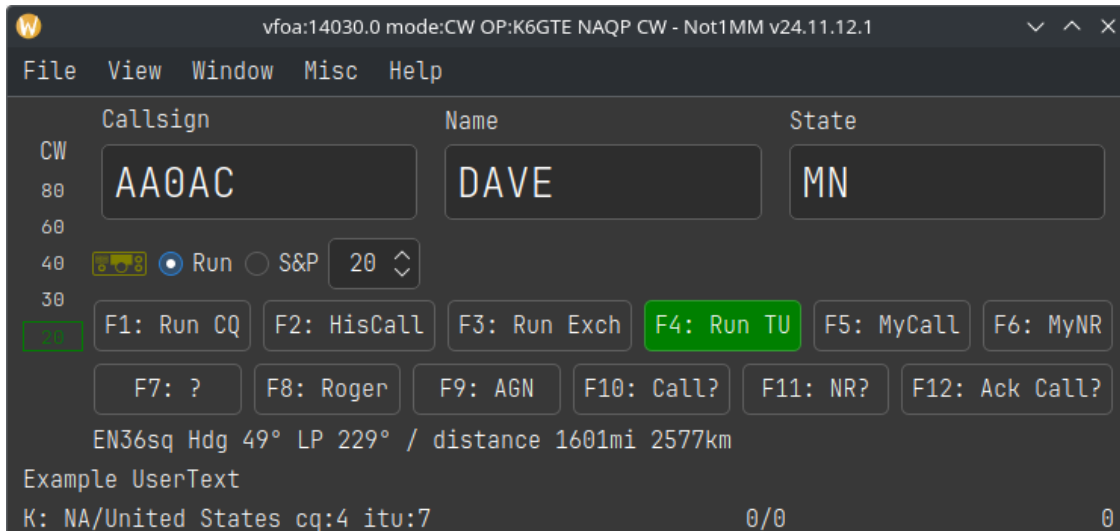
22 Creating your own Call History files

You can use **adif2callhistory** at <https://github.com/mbridak/adif2callhistory> to generate your own call history file from your ADIF files. An example file excerpt looks like:

```
!!Order!!,Call,Name,State,UserText,
#
# 0-This is helping file, LOG what is sent.
# 1-Last Edit,2024-08-18
# 2-Send any corrections direct to ve2fk@arrl.net
# 3-Updated from the log of Marsh/KA5M
# 4-Thanks Bjorn SM7IUN for his help.
# 5-Thanks
# NAQPCW
# NAQPRTTY
# NAQPSSB
# SPRINTCW
# SPRINTLADD
# SPRINTNS
# SPRINTRTTY
# SPRINTSSB
AAOAC,DAVE,MN,Example UserText
AAOAI,STEVE,IA,
AAOAO,TOM,MN,
AAOAW,DOUG,MN,
AAOBA,,TN,
AAOBR,,CO,
AAOBW,,MO,
```

The first line is the field definition header. The lines starting with a '#' are comments. Some of the comments are other contests that this file also works with. This is followed by the actual data. If the matched call has 'UserText' information, that user text is populated to the bottom left of the logging window.

So if one were to go to **FILE » LOAD CALL HISTORY FILE** and choose a downloaded call history file for NAQP and typed in the call AA0AC while operating in the NAQP, after pressing space, one would see:



Where the Name and State would auto-populate and the UserText info appears in the bottom left.

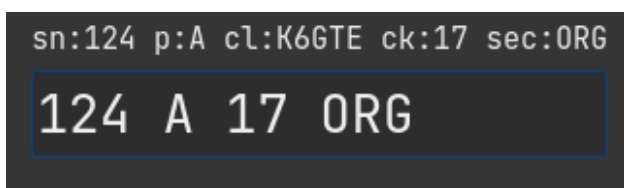
23 Contest Specific Notes

I found it might be beneficial to have a section devoted to weird quirky things about operating a specific contests.

23.1 ARRL Sweekstakes

23.1.1 The Exchange Parser

This was a pain in the tukus. There are so many elements to the exchange, and one input field aside from the callsign field. So I had to write sort of a 'parser'. The parser moves over your input string following some basic rules and is re-evaluated with each keypress and the parsed result will be displayed in the label over the field. The exchange looks like '124 A K6GTE 17 ORG', a Serial number, Precedence, Callsign, Year Licenced and Section. even though the callsign is given as part of the exchange, the callsign does not have to be entered and is pulled from the callsign field. If the exchange was entered as '124 A 17 ORG' you would see:



You can enter the serial number and precedence, or the year and section as pairs. For instance '124A 17ORG'. This would ensure the values get parsed correctly.

You do not have to go back to correct typing. You can just tack the correct items to the end of the field and the older values will get overwritten. So if you entered '124A 17ORG Q', the precedence will change from A to Q. If you need to change the serial number you must append the precedence to it, '125A'.

If the callsign was entered wrong in the callsign field, you can put the correct callsign some where in the exchange. As long as it shows up in the parsed label above correctly your good.

The best thing you can do is play around with it to see how it behaves.

23.1.2 The Exchange

In the 'Sent Exchange' field of the New Contest dialog put in the Precedence, Call, Check and Section. Example: 'A K6GTE 17 ORG'.

For the Run Exchange macro I'd put:

```
{HISCALL} {SENTNR} {EXCH}
```

23.2 ARRL 10M

The most confusing part of ARRL 10m is apparently how to setup your exchange.

23.2.1 If you're exchange is (RST + Serial No.)

You should edit your exchange macro keys to be:

```
{SNT} {SENTNR}
```

and a # character in the sent exchange field in the contest definition.



23.2.2 If you're exchange is (RST + State/Province/ITU)

You should edit your exchange macro keys to be:

{SNT} {EXCH}

and your state/prov/itu in the sent exchange field in the contest definition.

23.3 RAEM

In the New/Edit Contest dialog, in the exchange field put just your Lat and Lon. for me 33N117W. And in the exchange macro put '# {EXCH}'.

23.4 RandomGram

This plugin was submitted by @alduhoo. It reads a rg.txt file if it exists in the user's home directory to populate the next group in the sent exchange field.

23.5 UKEI DX

For the Run exchange macro I'd put '{SNT} # {EXCH}'

23.6 CWO Open Contest

Note: when completing the "Recd Number and Name" field, place a space between the received serial number and the name of the other operator. eg. "123 Fred". (Advance on spacebar is disabled for this field.)