# N1MM Logger

## Free Contest Logging Software



| | | |
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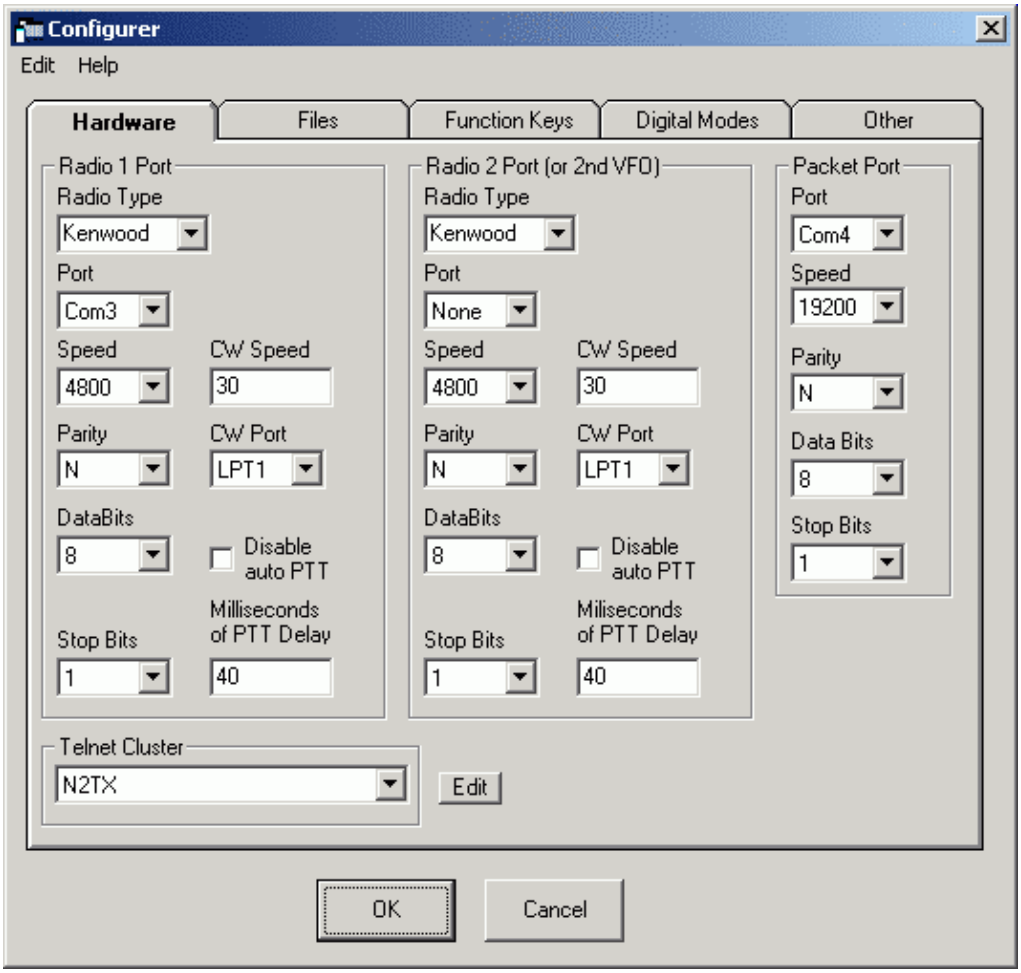
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# 1 Ten Easy Steps to Successful Logging.

(and no, I wasn't drinking when I wrote this)

## 1.1 Step 1. Setup




Get your radio, packet and telnet connections set up (Tools/Configure). You really won't be impressed without the radio connected. The program really shines when you have a spotting connection (packet or telnet).

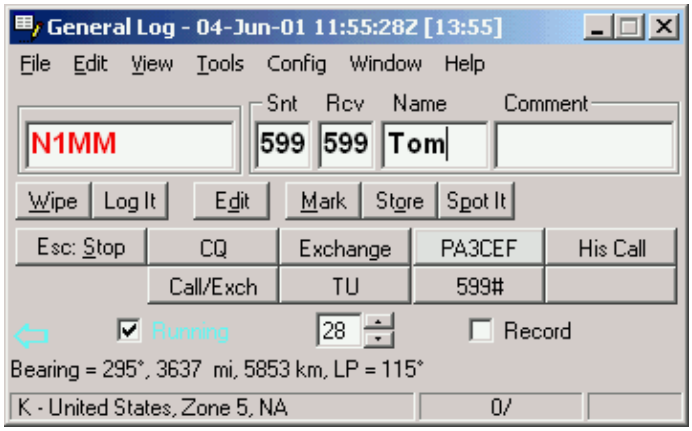
## 1.2 Step 2. Adjust Window Positions

Adjust the window positions as desired by opening every window separately from the 'Window' menu.

## 1.3 Step 3. Connect the Sound Card and the CW interface.

Connect your sound card to the radio so that you can play wave files or record contacts. Connect your CW interface to the parallel or serial port for CW keying. See the interface section for possibilities.

## 1.4 Step 4. Entering a Call




Ok, now we are ready to log. By default, you should be in the General log − look at the log window caption. So you want to log a qso? Type in the callsign field from the Entry Window the call of the station you want to log. Let's say you type 'N1MM'. Notice that the Check window shows calls with N1 in it, later N1M and finally only N1MM. This will happen with any call or partial call 2 or more characters long. Use the mouse and click on N1MM. Notice that N1MM will be filled in the callsign field, defaults will be set for fields who can have defaults (in this case the rst fields) and the cursor will be placed in the next field to be filled in −− the name field.

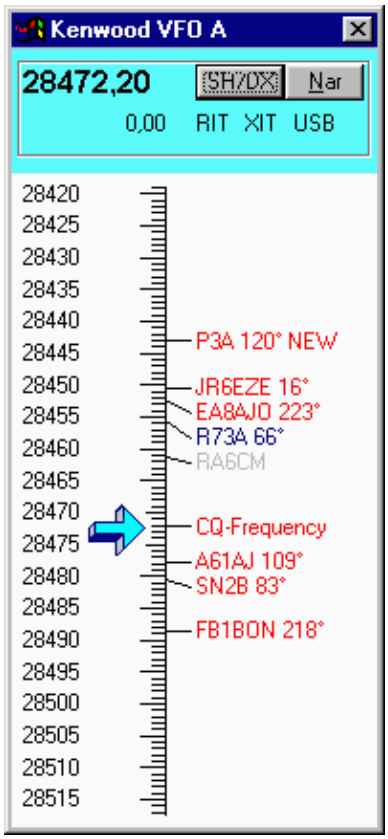
## 1.5 Step 5. Using the Space Bar to Tab

Ok, that's cool, lets try it another way. Click on the Wipe button to clear the Entry Window fields. Your cursor will be positioned on the callsign field again. This time Type 'N1MM' and press **SPACE**. Notice that the rst fields are again filled automatically and you are positioned to the next field to be filled in. Enter 'Tom' and press SPACE. In this case, you will not tab to the next field, since space is a legitimate character in a name. This is atypical behaviour. Most contest fields do not allow any spaces in them, so the space bar will jump from field to field. You'll like this, dammit! Really, I think you *will* like it − particularly in contests.

## 1.6 Step 6. Using the Tab Key

So if SPACE tabs, what does Tab do? It tabs as well! But it doesn't tab like space. The Tab character (and shift−Tab) behave like they do in most programs. They jump from field to field, without trying to be smart. So if you need to change the rst, you'll use the tab key to get there.

## 1.7 Step 7. Bandmaps, Spots and Other Cool Stuff




Ok now the really cool part. We need to get some spots onto the bandmaps. If you have set up a radio, you should have two bandmaps, and they should be displaying the frequencies of your A and B vfo's at the top. So how do we get spots on there? We need to connect to packet or telnet, of course. If you have an internet connection, try telnet, if a packet connection, well I guess you'll try packet. To pick, click on the appropriate tab in the Packet Window. To connect to packet, just type a command in the "Enter Command" window, like "C K1TTT" and press enter. Just do your usual stuff. Then type sh/dx/100 (we want a lot of spots) if it's a weekend, otherwise just type sh/dx/30. (Why the difference? The logger won't show old spots − the default is 60 minutes.

To use telnet, you must choose a telnet server. This you do in the configuration screen (you didn't skip step 1, did you?). I don't want to recommend one, for fear of overloading it, so try one, close the configuration window and type your call in the "Enter Command" window and press enter. Answer the questions, then type sh/dx/100 (we want a lot of spots) if it's a weekend, otherwise just type sh/dx/30. (Why the difference? The logger won't show old spots − the default is 60 minutes.

## 1.8 Step 8. Spots are Fun!

Spots should start appearing. Don't be afraid, there is no leopard. (Get it, spots?) Enough dumb jokes. Anyway, that's what people always tell me. So, what can we do with the spots? Lots of stuff. First note that each spot (except US and VE spots and spots from your own country) has it's beam heading next to it. (Well it has the beam heading from my house, too bad if it isn't the beam heading from your house. If you really want to fix that, go to the *station dialog* in Config/Change Your Station Data − you'll need to enter your latitude and longitude. If you don't know your latitude and longitude, tough − this isn't geography class, kid.)

Are we ever going to get to the good stuff? Sigh. Ok. You have spots in your bandmaps. Try SINGLE clicking on one. Notice how the radio tunes to the frequency of the spot? Also notice that the call appears in the frame around the callsign textbox in the Entry Window. Now press that magic

space bar again. The spot jumps into the call textbox! Let's try this another way. Click on the Wipe button (or press Ctl−W). Now tune the radio to a frequency within 300 Hz of another spot. Notice that the call again appears in the frame, and again the space bar will enter the call into the call textbox.

Ok, try Wiping again (either way). Now double click on a spot. Notice that again, you jump to the frequency of the spot, but this time the call is entered in the callsign field and the default fields are filled in, and you are ready to copy the next empty field (in this case name).

Wipe just one more time. Let's try jumping around the spots without using the mouse. Your cursor should be in the callsign field. If it isn't put it there. Now press Ctl−uparrow or Ctrl−downarrow. You should jump from spot to spot on the same band. Pick one of the spots where you can hear the station. Use the up and down arrow keys (no Ctrl this time) to tune the station in. Each press of the key will go jump 100 Hz on SSB and 20 Hz on CW (configurable). You're smiling, aren't you? There is a lot more. Go look here for more keyboard tricks: Key Assignments

## 1.9 Step 9. Actually Logging Contacts

We need to shift attention to actually logging contacts. Enter a call in the call textbox, press space and then type a name, well any name except 'Arthur' in the name textbox. (I'm sorry, I really cannot be responsible if you type Arthur.) You typed Arthur, and nothing happened, didn't you? Now you're angry. Here's a quarter.... Ok. Back on task. You have enough to log a contact now. Press enter, and notice that the contact will appear in the Log Window.

Now the fun part. Enter the same callsign again and press space. Looky, looky! The usual stuff happens, but two more things happen as well. The first contact shows up in the lower part of the Log Window, and the name from the first contact appears in the name field. If you were logging a contest, like ARRL DX, the power would be filled in from the first contact. If the first contact was on the same band as this contact, then the word "DUPE" in *BIG RED LETTERS* would appear. I was going to put the word "Dope", but then I thought that no one would want to use the program. Really, you should probably work the dope, I mean dupe, since you might not be in his log. It's actually easier to just work him than explain "You're a dupe, dope!"

Ok, press enter and log the dupe. You don't agree with me about logging dupes? Then RIGHT−click on the Log Window entry for the dupe, and choose delete contact. No, I'm not going to tell you what to do with the dialog box that pops up. I trust you. I feel like we are already friends.

## 1.10 Step 10. The Exciting Finale

Now for the exciting finale, if I called it the boring finale, you wouldn't read it now, would you? It *is* kind of boring, but I really couldn't trust you to get this far now could I? This step is about all the wonderful things you can change about this program. If I tried to explain them all, you wouldn't read it, so here is just a little bit. Look at the Edit menu. Here you can change the usage of many of the buttons in the program, like the CW buttons, packet, telnet, etc.

The Tools menu lets you rescore the contest and reload the CTY.DAT file. The Config menu lets you change state tables, section tables, not to mention the exciting Configuration options that we all know and love by now.

## 1.11 Step 11. CW and WAV Recordings

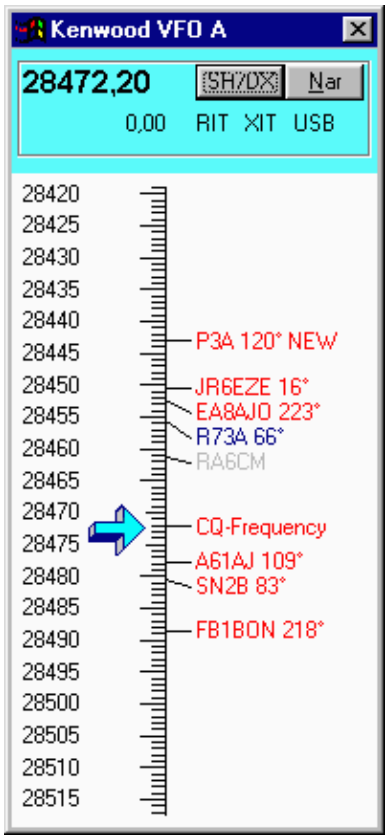
"Hey wait," you say, "You said there were 10 easy steps − what's this number 11 business?" There is a very simple answer. I lied. I wanted to write only 10, but I forgot to tell you about the CW and SSB buttons. They are preset at the factory (ok, at my house), to be very useful to only me. Try them anyway. If you have a CW interface, the CW buttons will send pretty damn good CW, even when you are doing other things like moving windows around. You had better appreciate this, because it was very hard to code, and I am very proud of it.

The same buttons are used in SSB to send WAV files. While this seems much harder, it was actually quite easy, but it's ok if you are impressed. I don't care, so long as you are impressed. You don't need to hook up your radio to enjoy this wonderful feature, just hook some speakers to your sound card and listen to my melodious voice call CQ as you click on the CQ button. In a real contest, however, you'll want to hook up the output of the sound card to your microphone input through a Radio Shack audio transformer and resistor setup. The high impedance side (with a 100k series resistor) goes to the microphone input, the low impedance side goes to the sound card speaker out. Of course you'll need to adjust the levels using the software that comes with your operating system or sound card. See the interface section for more info.

This thing will record qso's as well, but I'll let you find that in the help files.

I hope you have enjoyed this quick tour as much as I have enjoyed writing it. And for the second time, no, I was not drinking when I wrote this.

# 2 N1MM Free Contest Logger




## 2.1 General Overview

The N1MM Logger is a ***freeware*** program designed to do contest logging and some general logging. It is not a general logging program with award tracking etc. but it is mainly a contest logging program. Check the Features listing.

Important! The usefulness of this program is greatly enhanced by reading the Key Assignments

The Quick Tour is another *must read.*

These are the Supported Contests and the Supported Radios.

The program can be used on Windows 95/98/ME and on Windows NT/2000/XP. DOS is not supported.

## 2.2 N1MM logger discussion group

This group discusses features, bugs, and ideas for the N1MM Free Contest Logger.

- Do you have questions/remarks
- Here you want to go: http://groups.yahoo.com/group/N1MMLogger

## 2.3 Documentation

The documentation for this program is available in three different forms

- On the internet on the N1MM logger homepage, select 'View Help files'.

- As the programs Help file (N1MMLoggerHelp.chm)
- As a PDF file (N1MM Logger.pdf) which can be viewed and printed with Adobe Acrobat Reader (Version 3 or higher)

Both the Help file (CHM file) and the manual (PDF file) can be accessed while in the program. For this to happen the files should be placed in the N1MM logger program directory.

## 2.4 Group Email Addresses

| | |
|---|---|
| Post message: | N1MMLogger@yahoogroups.com |
| Subscribe: | N1MMLogger−subscribe@yahoogroups.com |
| Unsubscribe: | N1MMLogger−unsubscribe@yahoogroups.com |
| List owner: | N1MMLogger−owner@yahoogroups.com |

## 2.5 Programming specifics

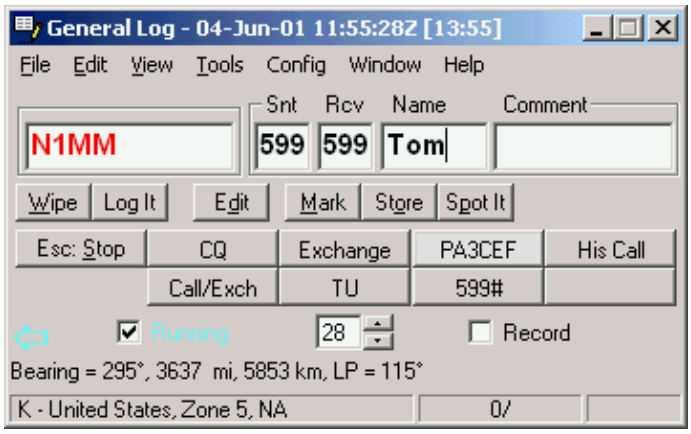
- Coded in Visual Basic 6.0 using no aftermarket controls.
- Current exe size (p−code) about 1350k.
- 21 Forms, 11modules, 45 classes.
- 18,000+ lines of code.
- Uses one freeware dll for lpt port control.
- Database is Access 2000.
- Uses data−bound controls for log and check functions.
- Uses MMTTY for soundcard RTTY support
- Uses WINPSK for soundcard PSK support
- Open source project and always looking for help

The logging program has been designed to work on a Pentium II 233 MHz as a minimum platform. Thus, it runs reasonably on a 233 Pentium II. Whether it can run as designed on slower speed machines is to be determined. It has not been and won't be a priority to make it run on clunkers.

## 2.6 Program development?

Currently AB5K, PA3CEF, G4UJS, N7ZFI, N2AMG and I are developing the program. It is a cooperative development venture, sort of like Linux. I'd be interested in your opinion. I am looking for others who would like to help. Of course, you'll need your own copy of Visual Basic 6.0 and Access 2000. Contact me (N1MM) to discuss working on this project.

# 3 Features




## 3.1 Realized features

- All major Contests are supported including General DX logging.
- Uses sound card for dvk.
- Contact recording to wav files. Right−click on log entry to play back.
- Automatic cw generation.
- RTTY PSK31 support.
- The program retains the size and position of windows as specified by the user. The windows below are shown tiled, but they may overlap as desired.
- The main windows (Main, Log, Bandmaps, Packet, Check, and Available Mults and Q's) are non−modal. That is, you can interact with any of them without having to close the last window used.
- Available Window keeps track of needed spots mults on each band for easy band−change decisions. Color−coded buttons indicate on which bands the current contact is needed.
- Radio interface to Kenwood, Many Yaesu (for example: FT−1000, FT−1000MP, FT−990, FT−920 and more), Icom, Elecraft.
- Click on packet spot in packet window to tune to that frequency/mode.
- Spotted stations appear on callsign textbox frame when you tune near a spot. A touch of the space bar will enter that call into the callsign field.
- Mode−aware fine tuning from the keyboard.
- Automatic beam heading and sunrise/sunset calculations.
- Check partial function.
- Packet & Telnet support − spots from both automatically update the band maps.
- CW sending from the keyboard.
- Dual graphical bandmaps click to tune radio to the spot selected. The bandmap can be zoomed in or out depending on number of spots showing.
- Two radio support. Two VFO support when using one radio. One VFO/Bandmap. The image below is of a one−radio configuration.
- Multiplier window.
- LPT port functionality to control antenna switches, radio selected, and ptt (95/98/ME/NT/2000/XP)
- Cabrillo import/export support.
- Multi−user support (in development).
- ADIF import/export support.
- All data is stored in an Access 2000 database to facilitate reporting and future integration with other software.
- Two monitor support (Requires Win 98 or better)
- Many more..

## 3.2 Planned features

What you see above all works. Besides testing, the tasks remaining include:

- Additional radio model support
- Additional contest support
- S&P QSO stack

# 4 Links

## 4.1 N1MM links

| | |
|---|---|
| **N1MM Free Contest Logger Home Page.**<br>• An overview with all the latest information on the program. | http://pages.cthome.net/n1mm |
| **N1MM logger discussion group**<br>• This group discusses features, bugs, and ideas for the N1MM Free Contest Logger.<br>♦ Do you have questions/remarks<br>♦ Here you want to go.<br>• To discuss the program you have to join first: | http://groups.yahoo.com/group/N1MMLogger<br>http://groups.yahoo.com/group/N1MMLogger/join |
| **G4UJS Support site**<br>• Here you will find a menu Item "Logging Software", on that page you will find 3 buttons.<br>♦ "N1MM Logger" Support<br>♦ Submit a "N1MM Logger" Bug Report<br>♦ Request a new "N1MM Logger" Feature. | www.qsl.net/g4ujs |
| **Download**<br>• **Program (base install)** − *N1MM.zip*<br>• **Program Updates** − *NewexeV1.1.xxx*<br>• **Windows Help file** − *N1MMLoggerHelp.chm*<br>• **Manual in PDF format** − *N1MMLogger.pdf*<br>• **Serial and parallel port support for 32 bit Operating Systems** − *DLPORTIO.dll*<br>• **RTTY engine** − *MMTTY* | Go to the Download page |

## 4.2 Other related links

| | |
|---|---|
| **MMTTY Software Page** (freeware)<br>• The MMTTY software engine is used by this contest logging program. | http://www.qsl.net/mmhamsoft/ |

| | |
|---|---|
| **Dimension 4** (freeware)<br>• Time synchronization tool for resynchronizing your computer time with Internet time standards. This program is successfully used by many N1MM logger users. | http://www.thinkman.com/dimension4 |

## 4.3 Contest links

| | |
|---|---|
| **ARRL Contest Calendar Page** | http://www.arr268l.org/contests/ |
| **SM3CER Contesting service** | SM3CER Contest Service |
| **WA7BNM Contest Calendar Main Page** | http://www.hornucopia.com/contestcal/ |
| **VK4DX Contest Calendar** | http://www.qsl.net/vk4dx/contest_calendar.htm |

# 5 Minimal PC Requirements

## 5.1 Minimum hardware requirements

The logging program has been designed to work on a Pentium II 233 MHz as a minimum platform. Thus, it runs reasonably on a 233 Pentium II. Whether it can run as designed on slower speed machines is to be determined. It has not been and won't be a priority to make it run on clunkers, but I am very close to making it work well on Pentiums.
The graphical resolution is minimal 800 by 600, but much better is 1024 by 768 or more to get all windows on the screen.
A lot of free serial ports is nice to have, this for connecting the radio (or radio's) and packet radio. CW−keying and PTT−ing the radio can be done through a free serial but also by a free parallel port. For PTT−ing MMTTY an extra serial port is needed.
For more info see the Radio Computer interfacing section.

## 5.2 Supported Operating systems

- Windows 95
- Windows 98
- Windows ME
- Windows NT
- Windows 2000
- Windows XP
- and probably future Windows versions.

# 6 Installation and Upgrading

## 6.1 Downloading the software

- The software can be downloaded via the links shown below.
- Be sure to download the latest exe after downloading the basefile N1MM.zip. There have been a number of fixes applied since the base install files were created. An email will be send out periodically to announce new versions to the group.
- Also download the latest Help file and optionally the latest PDF version of the Help file.
- For serial and parallel port support, download DLPORTIO.ZIP. (Windows NT, 2000 and XP users only)
- Download MMTTY when RTTY is your passion.

| | Select download location: | **Europe** | **USA** |
|---|---|---|---|
| **1** | Download the 7 MB basefile N1MM.zip from: | Download from WWW.PAGUS.IT/~n1mm – Italian site kindly donated by I8NHJ<br><br>Download N1MM.zip | W1VE<br><br>Download from WWW.W1VE.COM US site kindly donated by W1VE:<br><br>Download N1MM.zip |
| **2** | Download the latest 650 kB NewexeV1.1.xxx file from: | Yahoo's files section | |
| **3** | Check the **revision number and revision date** of the Help/Manual. It's shown on the bottom of the first page: | http://pages.cthome.net/n1mm/html/HtmlDocFrontpage.htm | |
| **4** | Download the 700 KB Windows help file. | http://pages.cthome.net/n1mm/html/N1MMLoggerHelp.chm (right click on link and choose: Save As) | |
| **5** | (Windows NT, 2000 and XP users only) For cw serial and parallel port support, download DLPORTIO.ZIP (800 kB) | http://pages.cthome.net/n1mm/dlportio.zip For more information look at Interfacing page (32 bit OS part) | |
| **6** | Download the (1.4 MB) PDF version of the help, suitable for printing. | http://pages.cthome.net/n1mm/html/N1MMLogger.pdf (right click on link and choose: Save As) | |
| **7** | Download MMTTY (1.5 MB) from the MMTTY homepage. | http://www.qsl.net/mmhamsoft/ Look for install information on: RTTYConfig.htm | |

## 6.2 First−Time Install Instructions

1. You can download the files via the links mentioned above.
2. Download the installation file **N1MM.ZIP** This is a 7 Mbyte file! (use link above).
3. Unzip both files into the same directory (e.g. c:\N1MMInstall). When using Winzip you must use version 7.0 or later.
4. Run setup to install the software into the install directory. The default is 'C:\Program Files\N1MM Logger'
   This directory where the program is installed will be called the Program directory from now on.
5. Download the Upgrade file from Yahoo's 'Files' section (use link above).
   - ♦ The upgrade file is called **NewExe(Version).zip** (Example: NewExeV1.1.418.zip)
   - ♦ The version number is also shown in the description of the file.
   - ♦ This file contains: the latest exes and other necessary files.
   - ♦ Only the last update is neccesary, not all updates before...
6. Just unzip it and copy all the files into the N1MM Logger install directory replacing any old version.
7. Download the Help file and the Manual. The Help file and manual are maintained separately from the program and follow it as close as possible.
   - ♦ The revision number and revision date are shown on the first page (use link above).
   - ♦ The Windows Help file is called *N1MMLoggerHelp.chm* (use link above).
   - ♦ The Manual called *N1MMLogger.pdf* (use link above).
8. Just copy the files into the N1MM Logger install directory (replacing any old version). The files can be accessed while in the program but also separately. For the PDF file Adobe Acrobat Reader version 3.0 or higher is needed.
9. (Windows NT, 2000 and XP users only) DLPORTIO − Needed to support LPT and serial ports. The installed code is tiny, the distribution rules require keeping this 800k file. You must install this as the administrator of your machine. See section 3.2 of the documentation for install instructions.

## 6.3 *Subsequent Install Instructions / Upgrading to a new program version*

1. Download **only** the Upgrade file from Yahoo's 'Files' section (use link above).
   - ♦ The upgrade file is called NewExe(Version).zip (Example: NewExeV1.1.418.zip)
   - ♦ The version number is also shown in the description of the file.
   - ♦ This file contains: the latest exes and other necessary files.
   - ♦ Only the last update is neccesary, not all updates before...
2. Just unzip it and copy all the files into the N1MM Logger install directory replacing any old version.

An E−mail will be send out periodically to announce new versions to the group members.

## 6.4 Upgrading the Help file and Manual

1. The Windows Help file and Manual are maintained separately from the program and follow it as close as possible. So when checking for a new program version also check if a new version of the Help/Manual ia present. The revision number and revision date are shown on the first page (use link above).
   - ♦ The Windows Help file is called *N1MMLoggerHelp.chm* (use link above).
   - ♦ The Manual called *N1MMLogger.pdf* (use link above).

- Check the version of the file.
  The revision number and revision date are shown on the first page (use link above).
- Download the Help file or Manual if a newer version is present.
  The size of the Help file is around 1 MB, the Manual is around 1.4 MB.
- Copy the file(s) into the N1MM Logger program directory replacing the old file(s).
- The Help file can be accessed while in the program with Alt−H or from the Help menu but also separately.
- The Manual can be accessed while in the program from the Help menu (Manual) but also separately. Adobe Acrobat Reader version 3.0 or higher is needed to display the file and has to be installed. If you want a paper version of the Manual/Help, this is the file you want to print.

An E−mail will be send out periodically to announce new versions to the group members.

## 6.5 Using the Program the First Time

- The first thing to do after starting the program is setting up your station.
  - This can be done in the 'Change Your Station data' dialog.
  - The first time the program starts automatically with this dialog.
  - This dialog can also be found under: Choose Config/Change Your Station Data
- After that you should configure your radio and packet and/or telnet connection.
  - Choose Config/Configure ports, Telnet Address, Other
- The packet buttons and main window function buttons can be changed.
  - See the Config menu.
- Alt−H is help.
- Space is the preferred Tab character (see Help).
- Read the Help/Manual!!!

## 6.6

## 6.7 Become a Tester and Report Problems

- If you want to become a tester, please join the Yahoo discussion group at http://groups.yahoo.com/group/N1MMLogger/join. This way you will receive information on bug fixes and new versions. This is especially important during contests, should there be a serious bug. Give out the Yahoo url.
- Be sure to download the latest exe. There have been a number of fixes applied since the base install files were created. An E−mail will be send out periodically to announce new versions to the group members.
- Please indicate the version number on your problem report E−mails, so that I can determine if the problem has already been fixed. The version number displays on the "splash" screen (the one with the tower) on start−up or can be seen in the Help/About window.
- Please report bugs. If I don't know about them, I can't fix them. This is a freeware project. It depends on volunteers like you. The quality of this software is directly proportional to the quality of testing. Thanks for your help!
- To qualify as a tester, you need a Pentium II class PC and if possible a packet cluster and radio connection.

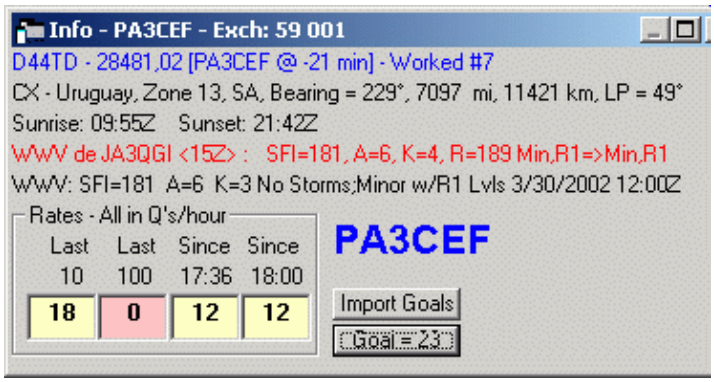
# 7 Help files and Manuals

The documentation for this program is available in three different forms

- On the internet on the N1MM logger homepage(http://pages.cthome.net/n1mm) , select "View Help files".
- As the programs Help file (N1MMLoggerHelp.chm) which can be downloaded below.
- As a PDF file (N1MMLogger.pdf) which can be downloaded below. The PDF file can be viewed and printed with Adobe Acrobat Reader (Version 3 or higher)

Both the Help file (CHM file) and the manual (PDF file) can be accessed while in the program. For this to happen the files should placed in the N1MM logger program directory.

**English** − most recently updated / latest versions




***Help file***

- View Help on the web
- Download Help as Windows Help file

***Manual***

- Download Manual in PDF format (use right−click to download)

***Version information***

- Show me the version of the Help file and manual (go to the bottom of the page)

***Other information***

- Take the Quick Tour

**German**

***Manual***

- Download Manual in PDF format (version 15−01−2002 1.1.351) (use right−click to download)
- Download Manual in Word 97 format in a ZIP file (version 15−01−2002 1.1.351) (use right−click to download)

**Spanish**

***Other information***

- Take the Quick Tour (April 2001)

## 7.1 Frequently Asked Questions

**Question: What is the latest version of the Help and the Manual out of date?**

At the bottom of the first page the latest date and version of the Help/Manual are shown. See the link above.

**Question: Why are the Help and the Manual out of date?**

The Help changes on a schedule different from the program (mostly every few weeks).

- You need to download it separately, it's not in the N1MM logger update file.
- Check to see if there is a more recent Help file and Manual.
- New versions will be announced on the N1MMlogger reflector.
- The Help and Manual are updated at the same interval.

**Question: Why doesn't the Help work?**

- Try Alt−H and not F1
- Probably because you don't have one or you do not have the latest version.
- The latest version can be downloaded from the link above.
- In the big install file there is an outdated Help file included and should be updated.
- The Manual is not included at all and can be downloaded which is advised.

# 8 Using the Program

When you want to use the program you need to know some standard routines like changing frequency, band and mode. Next to reading this chapter also read the Key Assignments and the Quick Tour to have basic program information. There are also some features which will be explained in this chapter like 'Running' mode, Search and Pounce' mode and 'Enter Sends message' mode etc.


- Resizing windows
- Changing Frequency
- Changing Band
- Changing Mode
- Split Operation
- Running Mode
- Search and Pounce Mode
- Enter Sends Messages Mode


## 8.1 Resizing windows

Logger's windows can be located where ever the user chooses and most can be made any size. The Entry Window is an exception, it cannot be resized. The Bandmap and Check windows cannot be made wider, but can be made longer or shorter. The Packet window can be made any size. The new dimensions and positions of the windows are stored when the program is closed. Closing the Entry window will close the application. All qso's are saved permanently to the hard drive as they are logged.

## 8.2 Changing Frequency

Changing frequency can be done in many ways. Below a short list with some possibilities.

- Just turn the dial or change band on your radio, the program will follow if connected.
- Enter a frequency in the Entry window 'callsign' field. Example: 14200,5 will jump to 14.200,5 MHz
- Click on a spot in one of the bandmap windows.
- Click on a spot in the Packet/Telnet window.
- Use one of the many keys below to change frequency, band or vfo/radio. Go look in the Key Assignments section to read what they all do!

| | | | | | |
|---|---|---|---|---|---|
| Alt−Ctrl−Down Arrow | Ctrl−Shift−Page Down | Ctrl−Down Arrow | Alt−Ctrl−Q | Ctrl−Left | F10 |
| Alt−Ctrl−Up Arrow | Ctrl−Shift−Page Up | Ctrl−Page Up | Page Up | Ctrl−Right | F9 |
| Ctrl−Shift−Up Arrow | Ctrl−Shift−Down Arrow | Ctrl−Page Down | Up Arrow | Page Down | Ctrl−F9 |
| Alt−Shift−Ctrl−Up Arrow | Alt−Shift−Ctrl−Down Arrow | Ctrl−Up Arrow | Alt−Shift−Q | Down Arrow | Alt−Q |

- In the Log window, right click and select 'Jump to this frequency' to go to the logged qrg.
- Click on one of the callsigns in the last multipliers below the 'Available Mult's and Qs' window.
- Push one of the buttons in the 'Available Mult's and Qs' window to change band.

- Enter an offset in the Entry window 'callsign' field to go 'split'. See the Split Operating section.
- Need any more?

## 8.3 Changing Band

Below some of the possibilities how to change band.

- Change the band on your radio, the program will follow if connected.
- **Ctrl−Page Up** − Go up one band. WARC bands are being skipped while logging for a contest.
- **Ctrl−Page Down** − Go down one band. WARC bands are being skipped while logging for a contest.
- Enter a frequency in the Entry window 'callsign' field on another band. Example: 14200,5 will jump to 14.200,5 MHz
- Push one of the band buttons in the 'Available Mult's and Qs' window to change band.
- Click on one of the callsigns in the last multipliers below the 'Available Mult's and Qs' window on another band.
- Click on a spot in the Packet/Telnet window on another band.

## 8.4 Changing Mode

- Change the mode on your radio, the program will follow if connected.
- Change the mode in the top part of the Bandmaps windows by clicking on the mode 'field'.
- Change the mode by typing CW, LSB, USB or RTTY, AM, FM, PKT in the 'Entry window' callsign field.

## 8.5 Split Operation

Split operation is when you transmit on another frequency then you receive. This is being used when stations have huge pileups like some dx−peditions or the bandplan does not allow people making contact on the same frequency. An example is 40 meter SSB between Europe and the USA. In Europe the highest SSB frequency is 7.1 MHz while US stations may not go that low in frequency.
Split operation can be recognized in the bandmaps. The big blue arrow will indicate your transmit frequency. A red marker will indicate your receive frequency. The frequency set will become the transmit frequency! Normally only one frequency is shown in the top portion of the bandmap, when working split the transmit frequency is added and shown just below the receive frequency.



*Note: When you are working split and you are in 'Running' mode moving around will not change 'Running' mode into 'Search and Pounce' mode.*

### 8.5.1 Split frequencies can be set manual

- In the Split dialog with Ctrl−F9 **or**
- direct into the Callsign textbox in the Entry Window entering it with *Ctrl−Enter*.
  Decimal points and comma's are allowed in split frequencies in the callsign pane.
  The split frequency has to be entered or an offset to the current frequency for the active radio/vfo.
  - ♦ Enter Split Frequency **or**
  - ♦ Enter offset from Bandbottom (the full MHz) **or**

♦ Enter offset from current frequency as +5, +4, 3, 6, −2, −5 etc.

### 8.5.2 Split frequencies can be set automatic by packet spots

When a station is selected in the bandmap it can happen the program puts the radio into split automatically. This station has been entered on the packet cluster including a split offset frequency which will be used by the program!

### 8.5.3 Resetting to non−split mode

- Move to another frequency or band
- Click on the transmit frequency in the top part of the bandmap just below the receive frequency.
- Click on a spot in the Bandmap or Packet/Telnet window
- Click on a frequency in the Bandmap window
- Click on the frequency scale
- Click on a band button in the Available Mult's & Q's
- Press PgUp/PgDn

## 8.6 Running Mode

Running mode means that you are giving CQ and stations are coming back to you. The frequency you are on is 'fixed' and you are not searching for stations. The program marks this frequency with the text CQ−frequency in the Bandmap window and the 'Running' indicator is marked on the 'Entry Window'. A part of this feature is that 'Running' mode has it's own set of Function keys. They will be automatically placed under the keys F1 to F8. There is also a set of function keys for Search and Pounce' mode, these function keys will swap to Shift−F1 until Shift−F8 so they are still available.

The "Running" is automatically marked when you:

- click on CQ−frequency in the Bandmap window
- are in tuning range of your CQ−frequency (on that band)
- pressing Shift−F1(= CQ−button) when in Search and Pounce mode (this can be changed on the Function Keys tab from the Configurer dialog.
- the string "CQ" is in the message or label from the function key or in the SSB file name.

When you leave your 'Running' frequency the indicator on the 'Entry Window' will be unmarked and the Function keys will be swapped for F1 to F8 in the 'Search and Pounce' keys.

When you move away from the frequency on which you were Running the program will place you automatically in Search and Pounce mode. Going back to your Running frequency will put you back in Running mode (the 'Running' indicator is marked again), clicking on 'CQ−frequency' in the bandmap will put you also in Running mode again.
An exception is when you are working split i.e. transmit on one vfo and receive on the other. Moving around will not change Running mode into Search and Pounce mode.

Running is determined by whether you are on a CQ−Frequency (the 'Running' indicator is marked). If you are, you are running. You have one CQ−Frequency per band. If you swap vfo's, it is possible to swap between running and search & pounce.

## 8.7 Search and Pounce mode

'Search and Pounce' mode (S&P) is the contrary from 'Running' mode. You are always in one or in the other. S&P mode means you are searching for stations on the bands and are not giving CQ. The frequency you are on is *not* 'fixed'. The 'Running' indicator is *not* marked on the 'Entry Window'. The function keys under F1 until F8 are the keys programmed for Search and Pounce' mode, the 'Running' mode function keys are swapped to Shift−F1 until Shift−F8 so they are still available.

*If "Running" is checked, you will see the Run messages, if not, you'll see the Search and Pounce messages on the function keys.* SHIFT REVERSES THE MEANING OF THE ABOVE RULE. When you press Shift, the labels will change (if you made them different) and the text from the "Running" keys become the text from the "Search &Pounce" keys and vice versa.

Note that if you are in Search and Pounce mode, to call CQ, you will need to press Shift−F1. That will place you in Run mode and you can press F1 from that point on.

## 8.8 Enter Sends Messages Mode (ESM mode)

If you set the option "Enter Sends Messages" in the Config dialog you will enable a mode that allows you to make entire qso's without using the function keys. If you are running, pressing 'Enter' with the callsign textbox empty will send CQ. If you type a callsign, the CQ will end. After you type the callsign, if you press 'Enter', the program will send the exchange. After you enter the other station's info, 'Enter' will send the end of qso message (TU/QRZ) and automatically log the contact.

Which function keys are used for which message can be set in the configuration dialog. Each type of message has a combo box for you to set the appropriate function key. If the program is sending the wrong message check here first.

Also note that the function keys change color (aqua blue) to tell you which message will be send next. The goal here is that it should always be obvious what will happen next.

Typing a character in the callsign field in 'Enter mode' will stop sending a CQ message being transmitted at that moment (this can be set in the Function Keys Tab from the Configurer dialog).

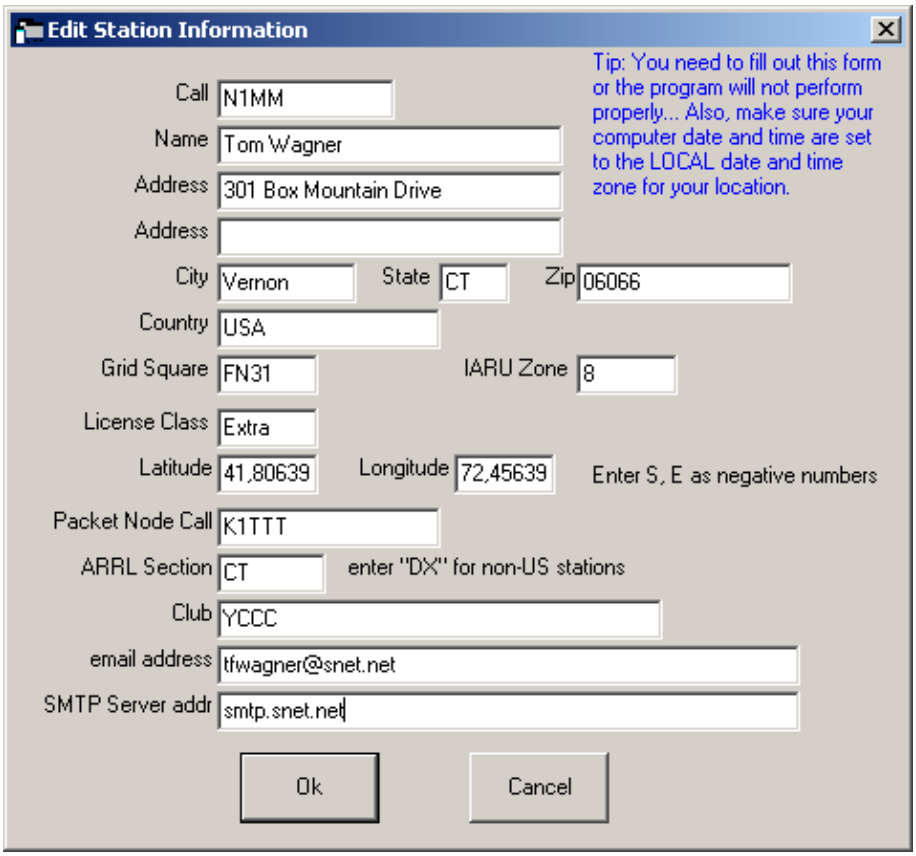
When in Running mode and the call button value is blank, then the CALL button is skipped and the TU button is send.

What to do if you get out of sync? Press a function key that corresponds to what you want to do. You can also press the space bar, and see how the buttons change highlighting. The highlighting indicates the next message to be sent.

| | | ***Running mode*** | ***Search and Pounce mode*** |
|---|---|---|---|
| **Callsign field** | **Exchange field** | **Enter sends:** | **Enter sends:** |
| Empty | Empty | *CQ de * (Send my call)* | ** (Send my call)* |
| Filled | Empty | *! (Send his call) & Exchange* | ** (Send my call)* |
| Filled | Filled | *TU de * (Send my call)* | *Exchange* |

# 9 Station Dialog

**Your Station Dialog window will be similar to this one.**

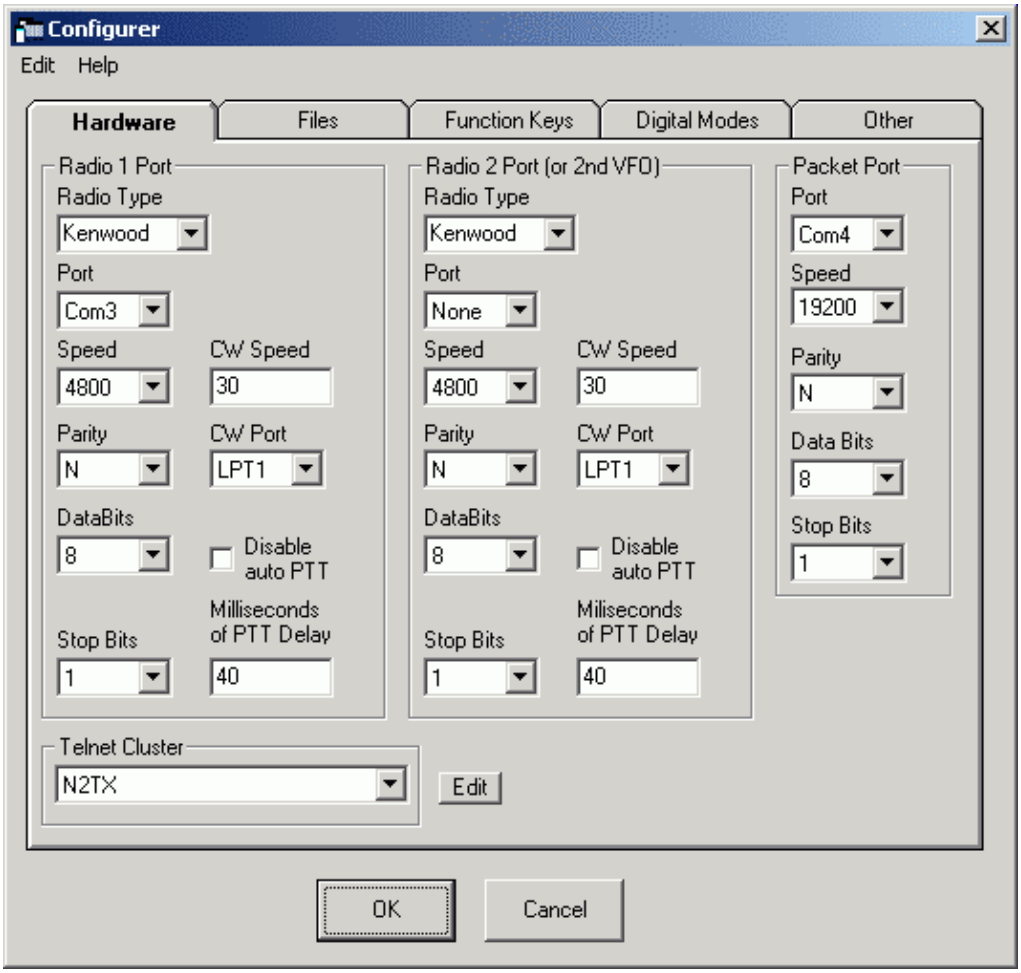



The information in this dialog is self−explanatory. Be aware that in order for the logger to calculate accurate beam headings, you will need to put your longitude and latitude into the appropriate fields. Also make sure that you enter your call as the station call sign. Many of the fields in this dialog are used in creating contest entries, so do update them with their correct values.
The E−mail address and SMTP server Address are being used when sending a bug report via E−mail. Your E−mail address and SMTP server address can be found in your E−mail program.

# 10 Configurer Dialog

**Your Configurer Dialog will be similar to these images.**

## 10.1 Hardware tab




The Hardware tab is used to set up your radios, packet interfaces, telnet connections and CW port. Set the values appropriate to your station. If you do not have one of the items listed, make sure the port selection is 'None'. Initial CW speed can be set per radio on this tab as well.

### 10.1.1 *Windows NT/2000/XP (32 bit OS)*

Under 32 bits Windows operating systems using the parallel and the serial ports require a special dll called: DLPortIO.dll. A link to the file dlportio.zip containing the required dll can be found in the installation section.

To install, follow the instructions in section 3.2 of the file DLPortIO.pdf. It is called: *Automatically Installing the DriverLINX driver.* The actual code installed and operating is tiny compared to the size of the zip file.

### 10.1.2 *Field descriptions*

- **Radio Type** − The radio used and controlled by the program
- **Port** − The serial port on the computer to use. Select 'None' if no radio is selected.
- **Speed** − The speed on the serial port to the radio/if−interface (check the manual of your radio)
- **Parity** − The parity used (check the manual of your radio)
- **Data Bits** − The number of data bits used (check the manual of your radio)
- **Stop Bits** − The number of stop bits used (check the manual of your radio)
- **Icom Addr (hex)** − The address for the radio used, enter without the H i.e. 26 not 26H. This filed is shown only when Icom is selected as Radio Type.
- **CW Speed** − The initial CW speed. Default: 30 wpm
- **CW Port** − The port used for sending CW to the transceiver. This can also be the radio port!
- **Disable auto PTT** − Check if you do *not* want the program to turn on your radio prior to starting to send CW or a .Wav file. When unchecked, the radio will be set to transmit 40 milliseconds before beginning the message (configurable, see below).
- **Milliseconds of PTT delay** − The time between keying the radio and starting to send CW or a .Wav file.
- **Packet Port** − The serial port used for Packet radio. Select 'None' if no TNC is connected.
- **Speed** − The speed on the serial interface port to the TNC for packet radio
- **Parity** − The parity used
- **Data Bits** − The number of data bits used
- **Stop Bits** − The number of stop bits used
- **Telnet Cluster** − The Telnet cluster to connect in the Telnet Window
- **Edit** − Edit Telnet selection list



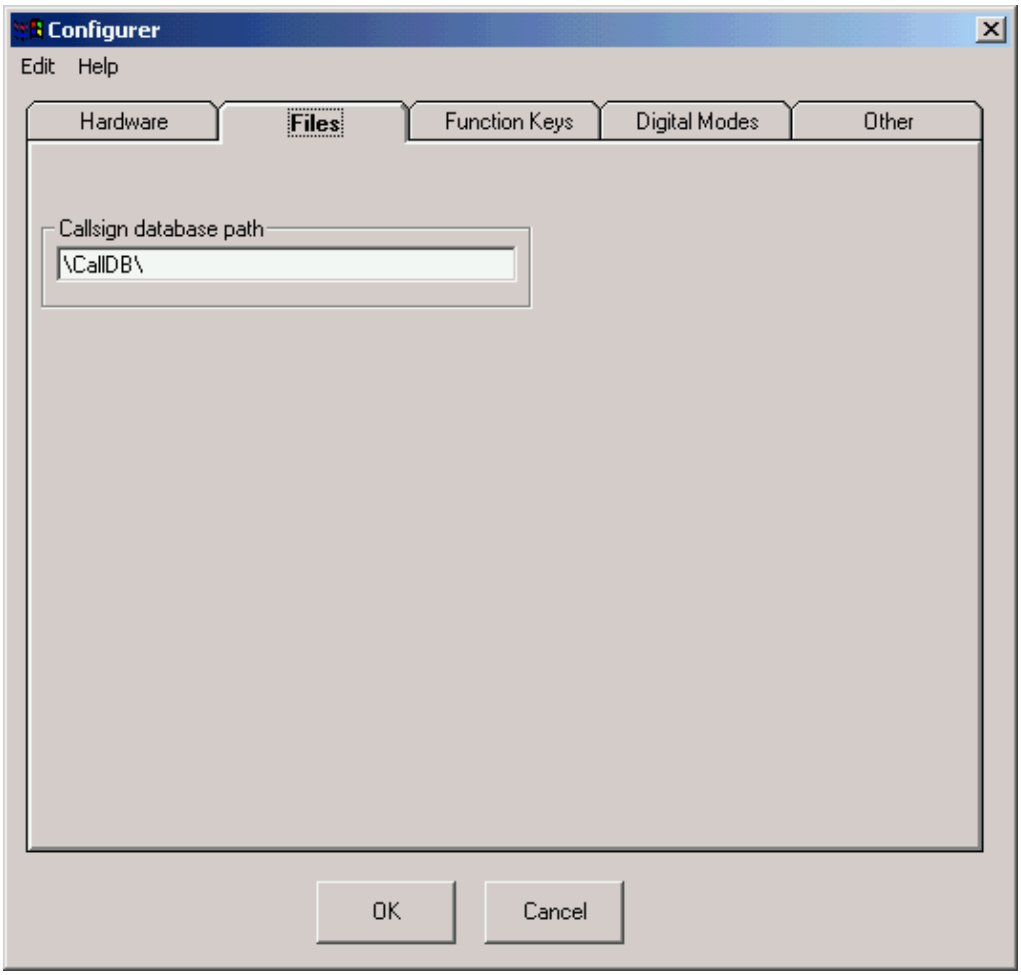
Note. When setting up CW and your radio has two VFOs, set them up on both the CW−ports for Radio 1 and for Radio 2. The radio 1 CW port is for the first radio or only for VFO A. If you want also CW on the second radio or on VFO B you also have to setup the CW−port for radio 2. The program makes two radios out of the two vfo's of the radio!
The program will warn the user if the CW ports are set different for radios or vfos.

### 10.1.3 *Other information*

It is possible to have the ptt on same serial port as the radio.
If the type of CW port chosen is LPT1, LPT2 or LPT3, additional information will be present on the parallel port. See Radio Interfacing for more detailed info.

## 10.2 Files tab

The files Tab is being used to set the path to the Buckmaster callsign database if present.




### 10.2.1 *Field descriptions*

- **Callsign database path** − Used to identify the directory of the Buckmaster callsign database to be used by the logging program. Be sure to include a trailing '\' in the directory name.

  Make sure that the path to the CD is set correctly. You can set the path to the Buckmaster database here and type in the full path to the Buckmaster database on your CD.

  For example: If your CD−ROM is mapped to the 'E' drive, the full path is:

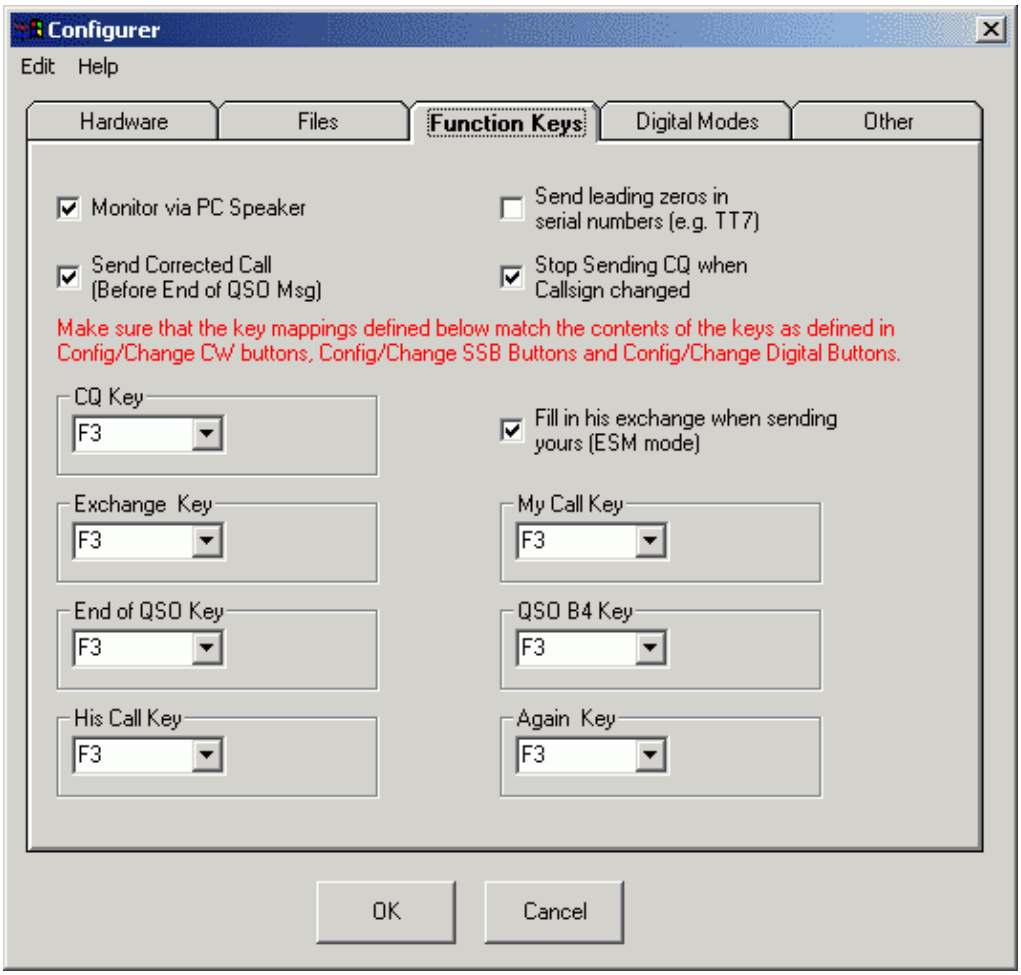
  E:\HAM0\

  Don't forget the back−slash '\' at the end of the path!

  Also, make sure to copy the HAMCAL32.DLL from the CD to the program directory where N1MM Logger is installed. On 'older' CDs, this file is located in the \API\WINDOWS directory. It might be located elsewhere on the newer CDs.

## 10.3 Function Keys tab

Which function keys are used for which message can be set here.




### 10.3.1 *Field descriptions*

- **Monitor via PC speaker** − The CW send by the program sounds via the PC speaker (only for Windows 95, 98, ME, disabled for NT/2000/XP machines)
- **Send Corrected Call (Before End of QSO Msg)** − Send Corrected Call (Before End of QSO Message) − If the callsign is corrected after answering a call, then the corrected call will be send before the End of QSO message (as configured by the End of QSO Key). E.g. 'PA3CEF TU DE N1MM' in stead of 'TU DE N1MM'.
- **Stop Sending CQ when Callsign changed** − Typing a character in the callsign field will stop a (repeated) CQ.
- **Send leading zeros in serial numbers (e.g. TT7)** − CW: Insert leading "TT" to 1 digit serial numbers and leading "T" to 2 digit serial numbers in CW to make into 3 digit number. So 007 will become TT7 and 030 will become T30. RTTY: In RTTY zeros will be added, so 1 will become 001.
- **Fill in his exchange when sending yours (ESM mode)** − When you are in Enter Sends Message mode this is an option to not fill his exchange when sending your exchange.

Which function keys are used for which message can be set here. Each type of message has a combo box for you to set the appropriate function key. If the program is sending the wrong message check here first.

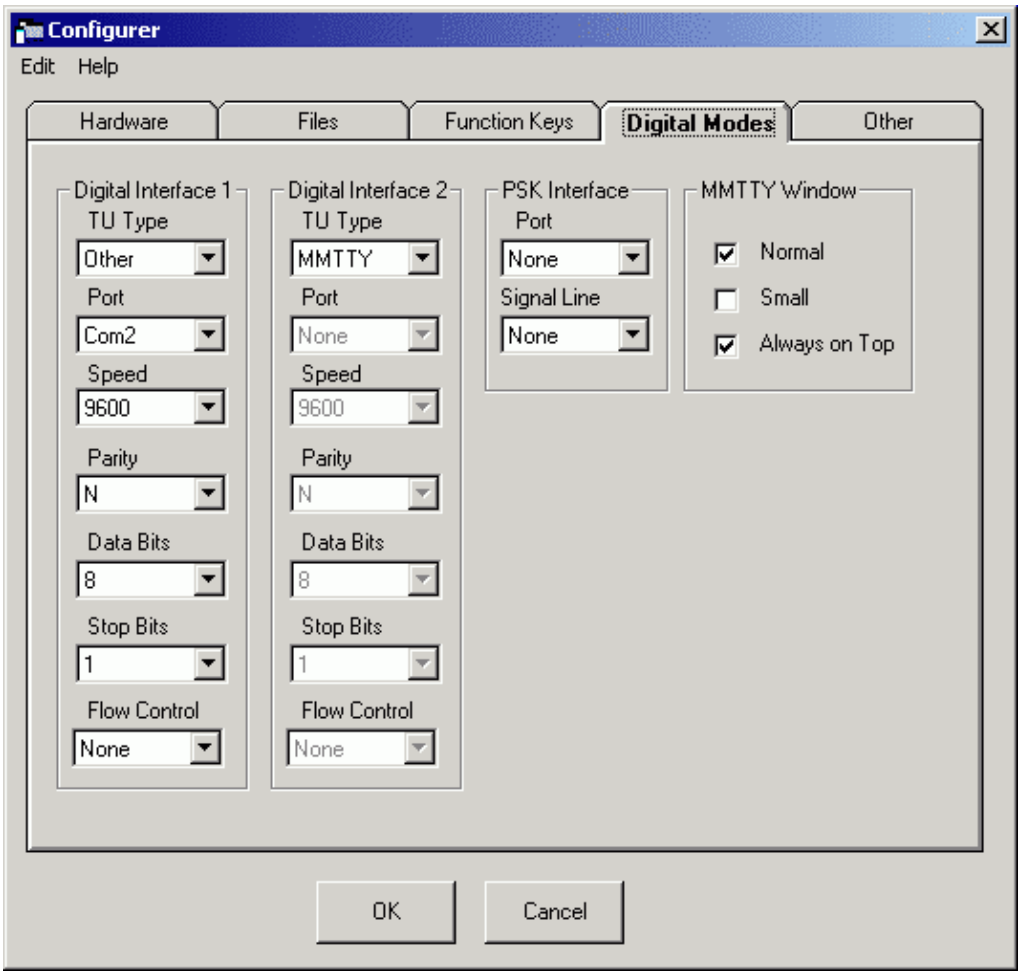
For the following messages a function key can be selected

- CQ Key

- Exchange Key
- End of QSO Key
- His Call Key
- My Call Key
- QSO B4 Key − automatically sent when in Enter Sends Message mode and working a dupe.
- Again Key

A function keys doesn't have to be unique for a selected message. There is little reason to do so although if you

## 10.4 Digital Modes tab




The Digital modes tab is used to set up the interfacing to external Controllers via the Serial ports or MMTTY who uses the sound card

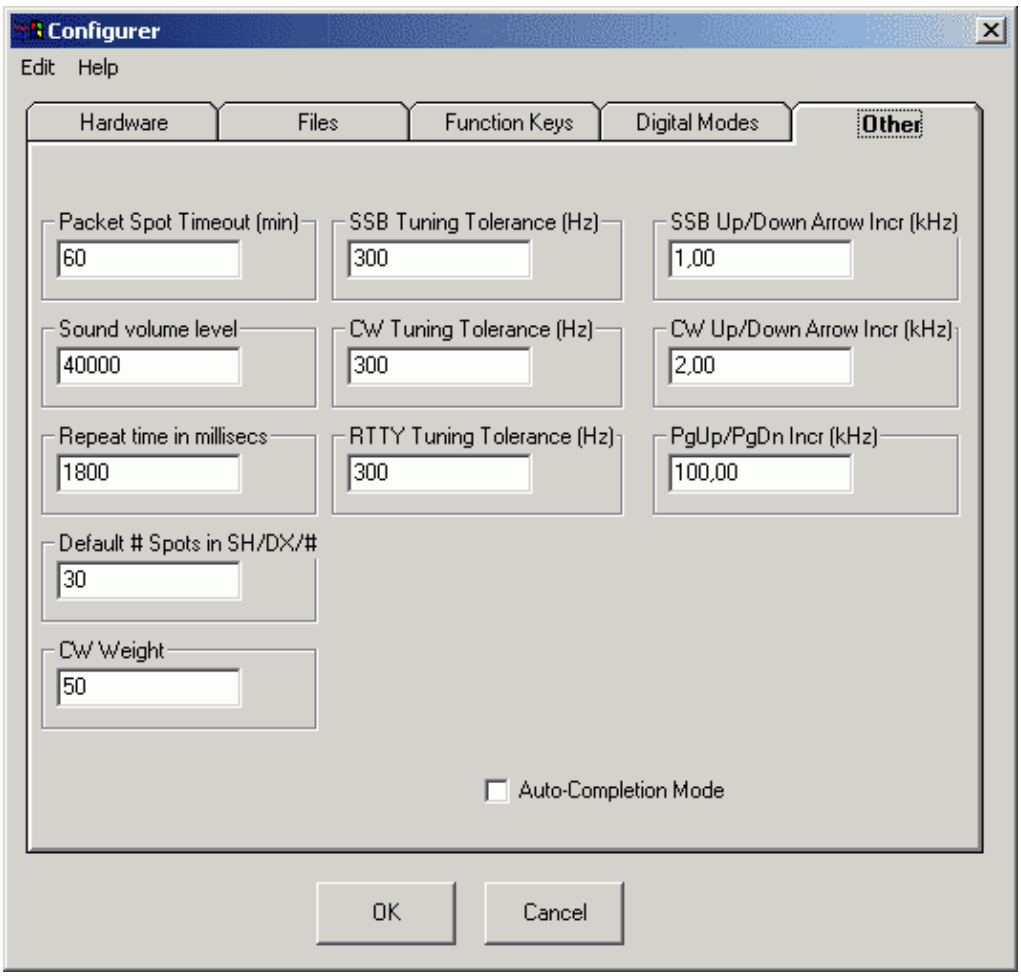
- Digital Interface 1 / 2
  - ♦ **TU type**
    - ◊ Other like the KAM, PK232, PTC and any other external TNC!
    - ◊ MMTTY as soundcard software.
  - ♦ **Port, Speed, Parity, Data Bits, Stop Bits, Flow Control** − Have to be set when chosen for 'Other'.

- PSK Interface
  - ♦ **Port** − Selects which serial port to use for PTT−ing the transceiver in PSK mode.

- **Signal Line** − Selects the signal line to use on the chosen port above.

- MMTTY Window
  - **Normal** − Check this box to see the full−size (Normal) MMTTY window with control panel.
  - **Small** − Check this box to see the small MMTTY window without control panel.
  - **Always on Top** − Check this box to have the MMTTY engine always on top of the other windows.

## 10.5 Other tab




The Other tab is used to set up default values and select special modes and functions.

### 10.5.1 *Field descriptions*

- **Packet Spot Time (min)** − Indicates how many minutes spots are to be kept in the bandmaps. The default is 60 minutes, any integer may be specified.
- **Sound volume level** − This is a number between 0 and 65536 that indicates the relative volume level that the program should set the sound card speaker to. This number can be determined by trial and error. The default for volume is 40000. This number will affect the loudness of the digital voice keying functionality of the program. Do not overdrive your transmitter!
- **Repeat time in millisecs** − Specify the repeat interval for the chosen Ctrl−Fn key (CW or SoundBlaster) in the Entry window (Auto−CQ). The default value is 1800 msec (1,8

seconds). Maximum value is 32767.
This is the same as Ctrl−R or 'Config|Set CQ repeat time' in the Entry Window.

- **Default # Spots in SH/DX/#** − The number of returned spots by the SH/DX command in the bandmap window. The default value is 30 spots. The number of returned spots for the SH/DX command in the Packet/Telnet window is not affected by this value and has to be changed in the Entry window under Config menu / Edit Packet/Telnet Buttons.
- **CW Weight** − Adjusts the CW weight. The default value is 50.
- **SSB Tuning Tolerance(Hz)** − Clicking on or next to a station in the bandmap window will put the call on the callsign frame (if the callsign field is empty) of the Entry window. This value gives the maximum frequency distance to the call on the bandmap when it will be put on the callsign frame. The value has to be between 0 and 1000. The default value is 300.
- **CW Tuning Tolerance(Hz)** − Clicking on or next to a station in the bandmap window will put the call on the callsign frame (if the callsign field is empty) of the Entry window. This value gives the maximum frequency distance to the call on the bandmap when it will be put on the callsign frame. The value has to be between 0 and 1000. The default value is 300.
- **RTTY Tuning Tolerance(Hz)** − Clicking on or next to a station in the bandmap window will put the call on the callsign frame (if the callsign field is empty) of the Entry window. This value gives the maximum frequency distance to the call on the bandmap when it will be put on the callsign frame. The value has to be between 0 and 1000. The default value is 300.
- **SSB Up/Down Arrow Incr (kHz)** − This value gives the frequency jump amount in SSB by the up/down arrow keys.
- **CW Up/Down Arrow Incr (kHz)** − This value gives the frequency jump amount in CW by the up/down arrow keys.
- **PgUp/PgDn Incr (kHz)** − This value gives the frequency jump amount Page Up/Page Down keys.

- **Format for DX−Spider Cluster** − This will send the right SH/DX message for DX−Spider clusters from the button in the top of the bandmaps (Example: sh/dx/30 *on* 20).

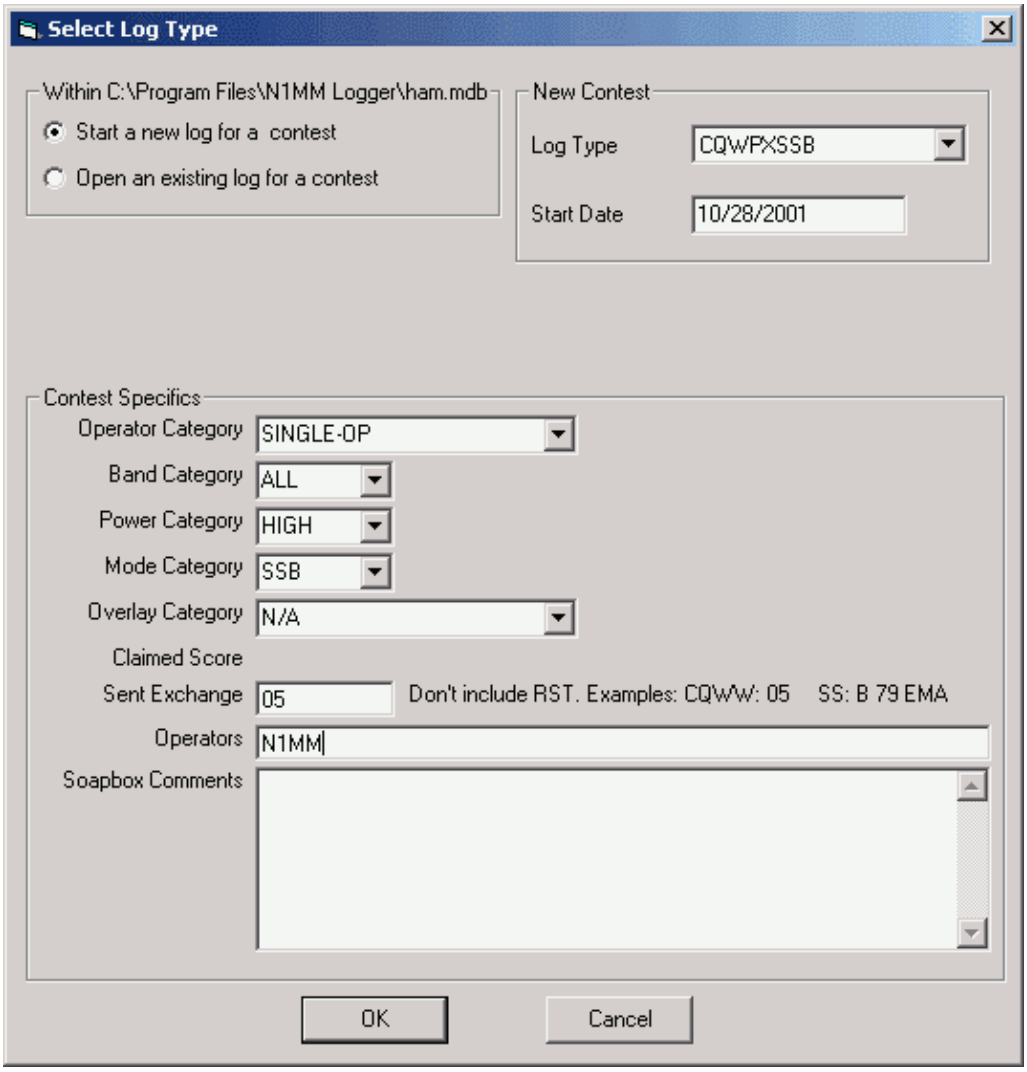
- **Auto−Completion Mode** − Auto−completion of callsigns. If you type part of a call, and that call is uniquely identified in the check window or in your log for the contest, it will finish typing the call for you. The part that it types will be selected, so that if you type another character, it will replace the letters that the program put in there.

# 11 Select Log Type Dialog

When starting a new contest you have to fill out the screen below.
It can be found under:

- File
- Choose contest
- Select 'Create a new contest'.

**Your Select Log Type Dialog will be similar to this one.**




## 11.1 General

You need to understand a little about how the N1MM Logger stores contacts. The logger stores a contacts in an Access 2000 database. Multiple contests can be stored in the same database. Within the database, contest information is stored in two tables. One table is for the contacts, and one is for the contest information shown in the Contest Specifics section of the dialog. In this second table is also stored the start date for the contest. This start date does not affect what contacts are associated with that contest. If you log a contact while a particular contest is chosen, that contact is associated with that contest, no matter what the date of the contact or the contest. The contest date

is only used to help you identify a particular contest.

To delete a contest, you must first click on the contest in the Previous Contest pane so it is selected, then press the Delete key.

The contest selection defaults to the correct mode based on the contest.

Log Type: DX, this is the General log. Do do both CW and SSB in this 'contest' choose Mixed mode. Selecting SSB or CW will only allow the selected mode!.

These are the Supported Contests.



***Note: Be sure to always load the most recent (and right) CTY.DAT file before entering a contest. Download it from the internet or use the one send with the most recent update of N1MM logger.***

## 11.2 Field explanations

- **Log Type:** make the choice for the appropriate contest
- **Start date:** The first day of the contest
- **Operator Category:** Make a choice for your situation
  Choices are:
  - SINGLE−OP
  - SINGLE−OP−ASSISTED
  - MULTI−ONE
  - MULTI−TWO
  - MULTI−MULTI
  - SCHOOL−CLUB
  - CHECKLOG
- **Band Category:** Make a choice for your situation
  Choices are:
  - ALL
  - 160M
  - 80M
  - 40M
  - 20M
  - 15M
  - 10M
  - LIMITED
- **Power Category:** Make a choice for your situation
  Choices are:
  - HIGH
  - LOW
  - QRP
- **Mode Category:** Make a choice for your situation
  Choices are:
  - CW

- ♦ SSB
- ♦ RTTY
- ♦ MIXED

- **Sent Exchange:** Contest−dependent, mostly a number, zone, state etc
  - ♦ Always give the exchange without the RS(T) !!

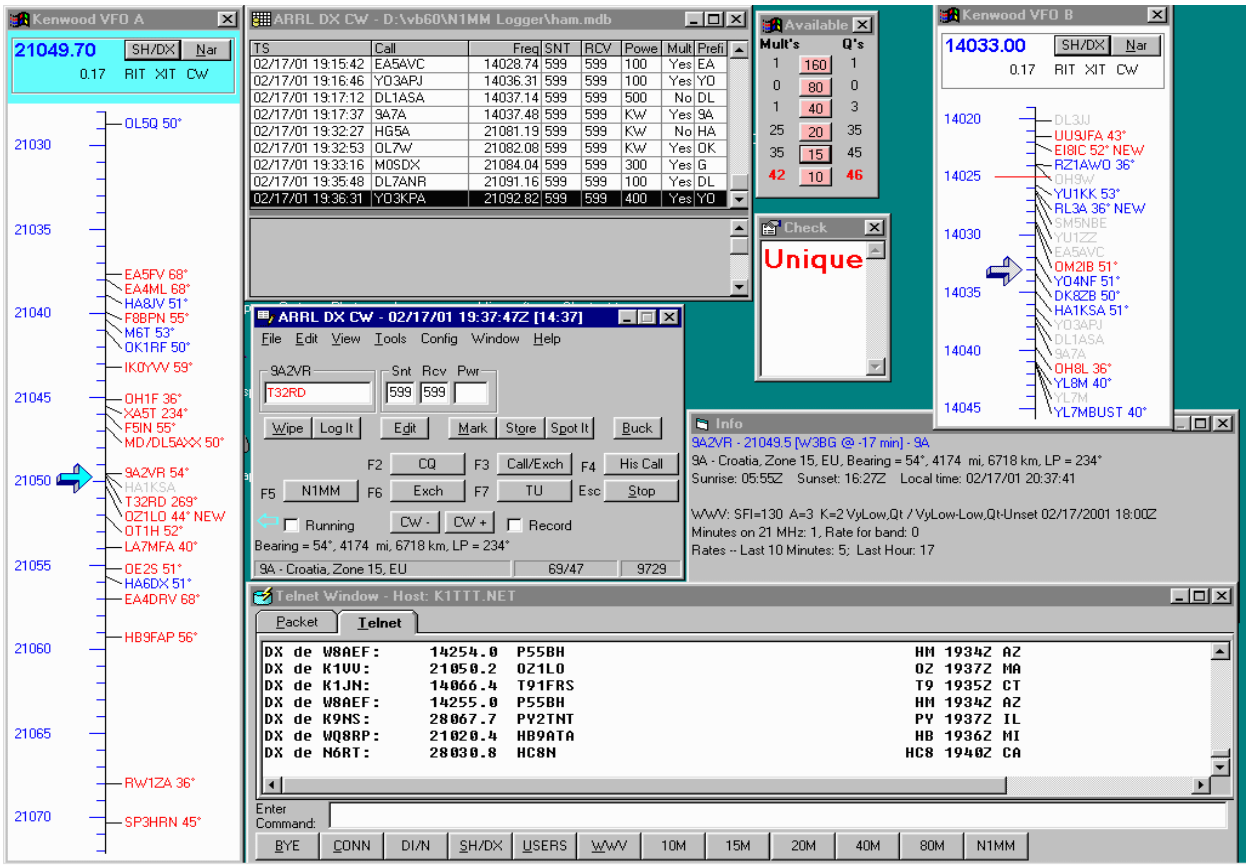
- **Operators:** Give the callsigns of the operators

- **Soapbox comments:** Give your comments on the contest, results, propagation etc.

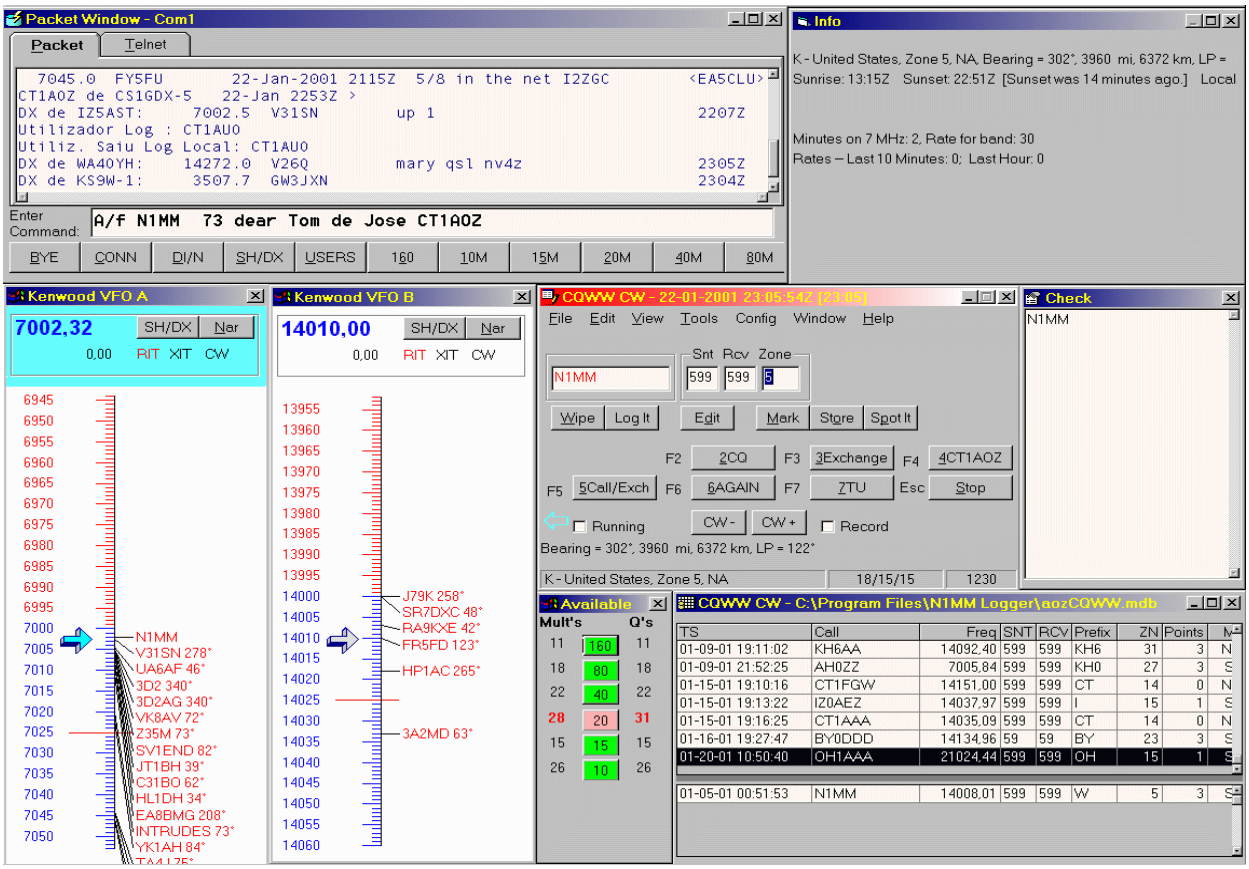
# 12 Example Screen Layouts

Below are shown some possible screen layouts which can be a little help when setting up the windows. These examples are for 1024 by 768 pixels (17 and bigger)screens and one for 800 by 600 pixels (14/15 inch screen). When using 800 by 600 pixels mostly users seem not to show the Packet/Telnet window and one of the bandmap windows. Setting up the windows with a lower resolution is hardly possible.
After starting the program you have to setup up all the windows in such a way that the ones used are on a logical place on the screen. Like the left radio bandmap on the left side of the screen or vfo A left and vfo B right etc.

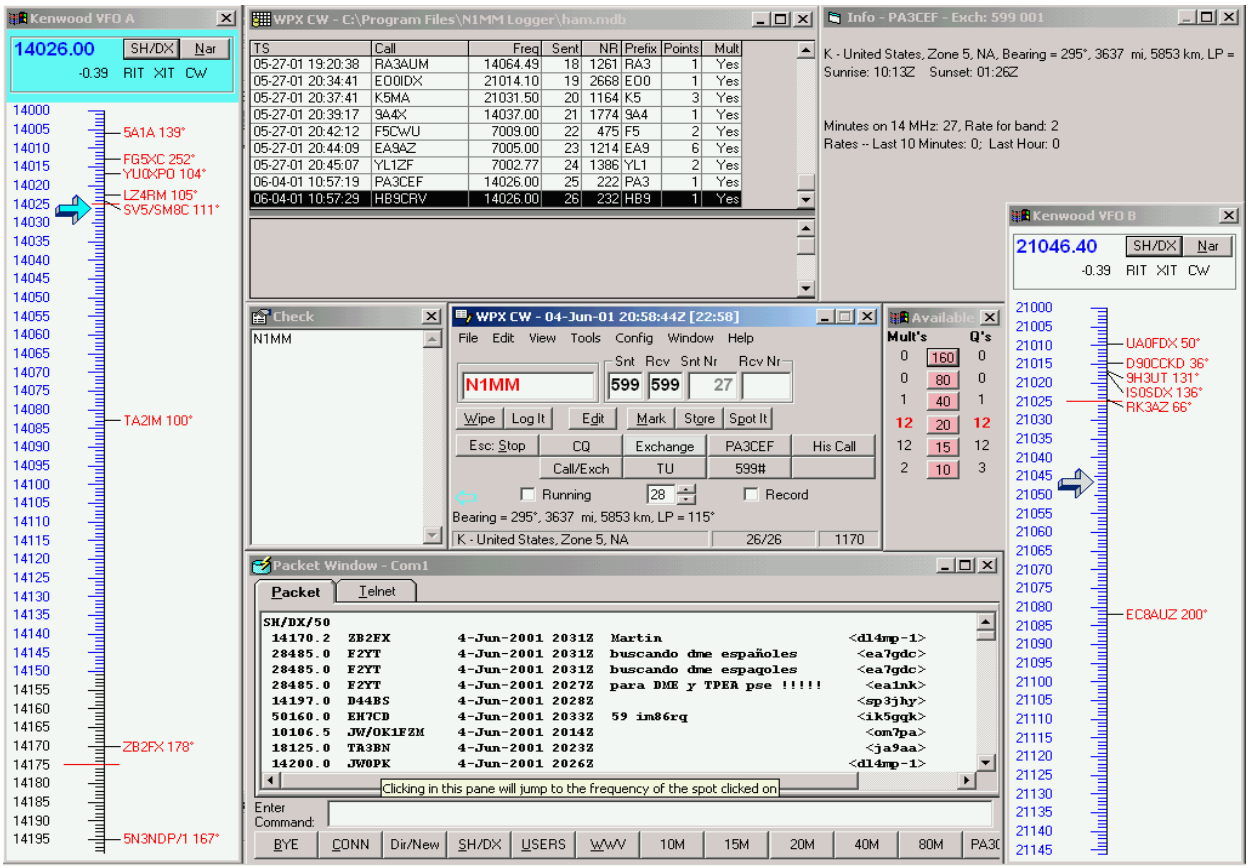
These screen layouts are not in the Windows Help file because of their size.



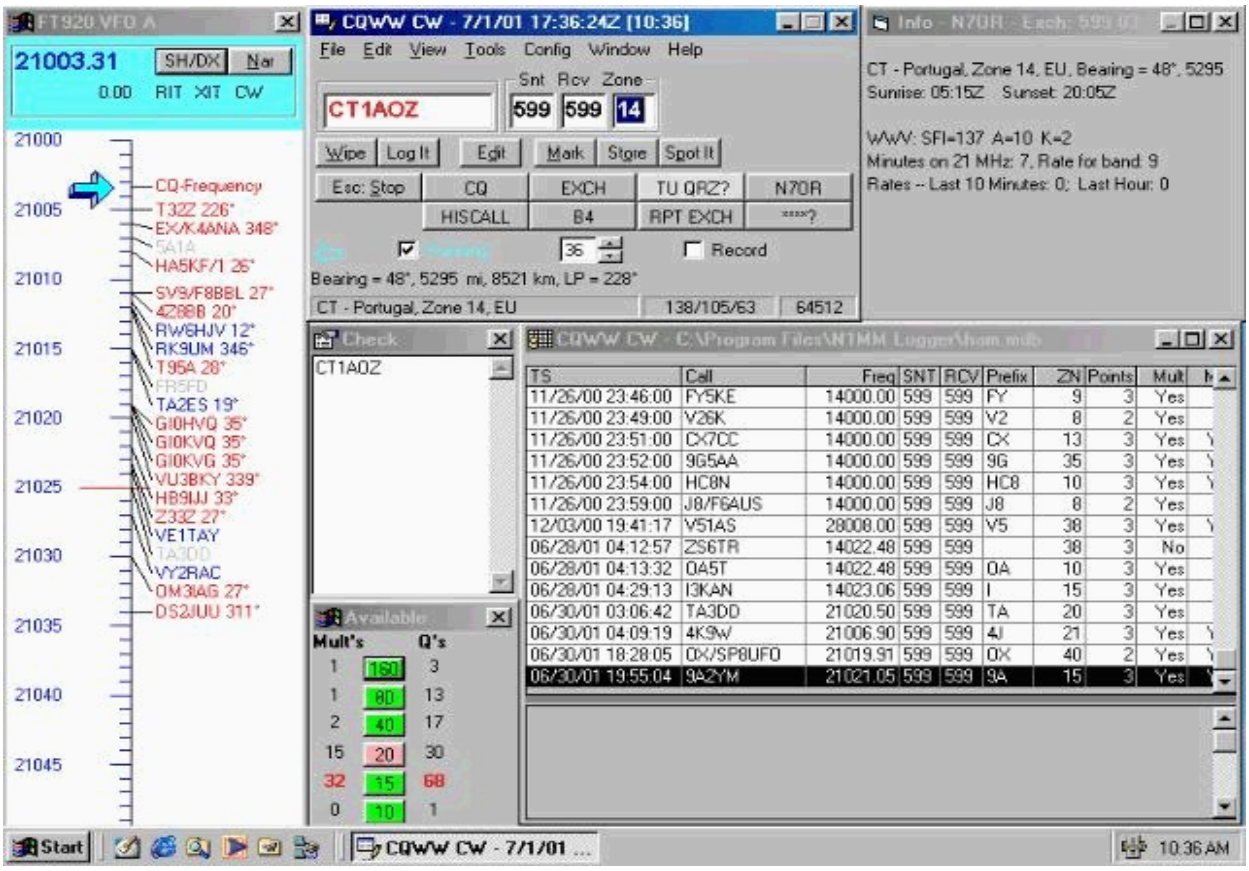

This is a possible screen layout from Tom, N1MM (1024 by 768 pixels)




This is a possible screen layout from Jose, CT1AOZ (1024 by 768 pixels)




This is a possible screen layout from Thomas, PA3CEF (1024 by 768 pixels)

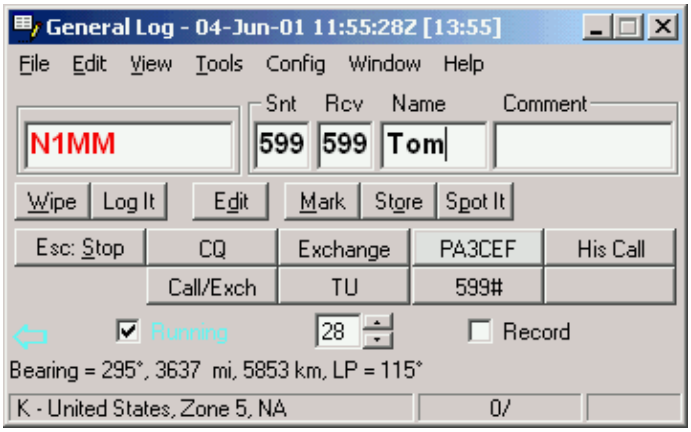



This is a possible screen layout from Craig, N7OR (800 by 600 pixels)

# 13 Entry Window

Key Assignments

**Your entry window will be similar to this one. The window shown is the General log (DX) entry window.**




There are two ways to move from field to field.

- Tab or Shift Tab will move through the fields normally.
- The spacebar will jump from field to field filling in defaults. Defaults like the callsign from the frame, the reports, and information from previous contacts with this station are shown in the log window.
  **The spacebar is the preferred tab character.**

- Button Assignments
- Other Info (Running & Record Check Boxes)
- Status Bar Information
- Callsign Colors
- Other Features
- Function Keys
- Other Keys (Insert & Ctrl−Enter)
- File Menu
- Edit Menu
- View Menu
- Tools Menu
- Config Menu
- Window Menu
- Help Menu

## 13.1 Button Assignments

- **Wipe** − Clear the contact information.
- **Log It** − Write this contact to the database.
- **Edit** − Edit additional contact information
- **Mark** − Mark this frequency in the Bandmap as being in use. I.e. you don't want to take time to enter the call of the station using this frequency.
- **Store** − Store the contact in the Bandmap
- **Spot it** − Spot the contact on the current Packet/Telnet connection.

- **Buck** − Display information on the current call using the Buckmaster callsign database. Note: hamcal32.dll must be in the start−up directory for this button to appear. The callsign database must also be set up properly in the Files Tab from the Configurer dialog for the button to appear.
- **F1 through F8** − Send the associated CW text or .wav file. Right click on the buttons to change labels and actions (or go into the menu). See below for more info about the Running indicator.
- **Shift−F1 through Shift−F8** − Send the associated CW text or .wav file. Right click on the buttons to change labels and actions (or go into the menu). See below for more info about the Running indicator.
- **Ctrl−F1 through Ctrl−F8** − Will send the associated CW text or .wav file and repeat it every 1.8 seconds. The repeat time can be changed on the Other tab from the Configurer dialog. On the Function Key tab from the Configurer dialog you can select the possibility that when the callsign field is changed the repeat function will be canceled.
- **Esc** − Stop sending the associated CW or .wav file. Also stops playback of recorded contacts.
- **CW speed** − The CW speed can be set with the textbox with speed & up/down buttons (only visible when CW mode is selected). In the example screen above the speed is 28 wpm.

## 13.2 Other Info

- **Running** − Mark this contact as being part of a run.
  "Running" is automatically marked:
  - ♦ when you click on CQ−frequency in the Bandmap window
  - ♦ when you are in tuning range of your CQ−frequency (on that band)
  - ♦ when you pressing Shift−F1(= CQ−button) when in Search and Pounce mode (this can be changed on the Function Keys tab from the Configurer dialog.
- **Record** − Record current contact. Writes the contact on the disk in a subdirectory of the current directory with the name of the selected contest. e.g. C:\Program Files\N1MM Logger\CQWW\....

## 13.3 *Status Bar Information*

- **Left pane** − Information
  - ♦ *After entering a callsign* − Country, Zone, Continent
  - ♦ *Otherwise* − Messages (like error messages, results from commands etc.)
- **Middle pane** − Qso's /multipliers (/zone) depending on the selected contest
- **Right pane** − Current score

## 13.4 Callsign Colors

Callsign colors entered in the Callsign field

**Red** **Multiplier**

**Blue** **New contact**

**Dupe** contact or an **unworkable station in a non−workable country**

Gray This means that you don't need this station because he is a dupe or you are not even 'allowed' to work him in this contest according the contest rules.

Callsign colors appearing on the Entry window callsign frame

**Red** **Multiplier**

Gray

**Dupe** contact or an **unworkable station in a non−workable country**
This means that. you don't need this station because he is a dupe or you are not even 'allowed' to work him in this contest according the contest rules.

## 13.5 Other Features

- When a callsign is entered info about the country (bearing, distance etc) is shown just above the status bar.
- When a callsign is entered and the station is a **dupe** moving to another frequency will automatically clear the callsign field.
- Clicking on the Exchange pane will have the same effect as pressing Space when the cursor is in the callsign field.
- When tuning the band and a station on the bandmap is within tuning range, his call will be placed on the Entry window callsign frame. When the callsign field is empty, giving space will copy the callsign from the Entry window callsign frame to the callsign field. Also clicking on the callsign in the callsign frame will place call into callsign field, replacing anything that was previously there.
- **Set Frequency in callsign field** − The frequency can be set by entering it into the callsign field. Decimal points and comma's are allowed in (split) frequencies in the callsign pane. Also Split frequencies can be set here.
- **Set Mode in callsign field** − The mode can be set by typing CW, LSB, USB or RTTY, AM, FM, PKT into the callsign field.
- **Ctrl−P** − Spot the station entered in the callsign field as a spot to the active cluster connection, either packet or telnet. You will be prompted for a comment. If no station is entered in the callsign field, the last station worked this session will be spotted.
- **Auto−call completion** − As you are typing a callsign in the callsign field, if a unique match to your log or to the check window call occurs, the remaining characters in the call are added to what you have already typed. They will be highlighted, so that if you continue to type, you will replace the characters added.
- **Auto−CQ** − Ctrl−F1 through Ctrl−F8 will send the associated CW text or .wav file and repeat it every 1.8 seconds. When the callsign field is changed this repeat function will automatically be cancelled also it will stop sending if in CQ mode. The repeat time can be changed on the Other tab from the Configurer dialog.
- **Enter sends messages** − the so called 'Enter mode' or 'ESM' mode. An entire normal contact (CQ & S&P) can be handled with Enter key.
- **Automatically Spot all S&P QSO's** − Spot the contact automatically when you log it.
- **"Quick Edit" (Ctrl−Q/Ctrl−A).** − Quickly edit the qso's worked before in the log. Ctrl−Q moves back one qso, Ctrl−A moves forward one qso. If the textboxes in the Entry window are colored blue, you are in Quick Edit mode. To exit, press enter to save changes or Escape to abandon changes. Quick Edit starts editing with the highlighted contact and you can move forward or back from there. Enter logs the changes made and Escape discards the changes bringing you back in normal logging mode.
- The program will display a warning if it suspect's that the computer time is wrong (by checking local time & time zone ).

## 13.6 Function Keys

The program has 16 possible programmed messages assigned to the function keys. There are two sets of messages, *Run messages* and *Search and Pounce* messages. The first eight messages you enter are presumed to be Run messages, the second eight, Search and Pounce.

The function keys can be remapped , this can be done in 'Config menu selections', 'Configure Ports, Telnet Address, Others', Tab: Function Keys.

### 13.6.1 *Running and S&P mode*

*If "Running" is checked, you will see the Run messages, if not, you'll see the Search and Pounce messages on the function keys.* SHIFT REVERSES THE MEANING OF THE ABOVE RULE. When you press Shift, the labels will change (if you made them different) and the text from the "Running" keys become the text from the "Search & Pounce" keys and vice versa.

Running is determined by whether you are on a CQ−Frequency (the 'Running' indicator is marked). If you are, you are running. You have one CQ−Frequency per band. If you swap vfo's, it is possible to swap between running and search & pounce.

When you move away from the frequency on which you were Running the program will place you automatically in Search and Pounce mode. Going back to your Running frequency will put you back in Running mode (the 'Running' indicator is marked again), clicking on 'CQ−frequency' in the bandmap will put you also in Running mode again.
An exception is when you are working split i.e. transmit on one vfo and receive on the other. Moving around will not change Running mode into Search and Pounce mode.

Note that if you are in Search and Pounce mode, to call CQ, you will need to press Shift−F1. That will automatically place you in Run mode , the Run indicator will be set, and you can press F1 from that point on.

| ***Running mode*** | | ***Search and Pounce mode*** | |
|---|---|---|---|
| F1 | **CQ** | Shift − F1 | *** (send my call)** |
| F2 | **Exchange** | Shift − F2 | **Exchange** |
| F3 | **QRZ/TU message** | Shift − F3 | **TU de * (send my call)** |
| F4 | *** (send my call)** | Shift − F4 | |
| F5 | **! (send his call)** | Shift − F5 | |
| F6 | **TU** | Shift − F6 | |
| F7 | **?** | Shift − F7 | |
| F8 | **QSO B4** | Shift − F8 | |

The above mentioned function key assignments are the defaults. The function keys can be remapped in the 'Configurer' dialog.

Just put these 16 messages in the cw message area in order. They will map to F1−F8 and Shift F1−F8. You may omit the last five, and they will repeat F4−F8.

Keys not programmed in S&P mode take the value of that key from Running mode (if programmed). This means that when the F5 key in S&P mode isn't programmed, the F5 key from Running mode will be shown (and used) by that function key in S&P mode. If you want you can come close to CT compatibility.

*Therefore the text sent by and shown on the function keys depend on the Running mode indicator!*

## 13.7 Other Keys

| ***Key*** | ***Send function key(s)*** | ***Action(s)*** |
|---|---|---|
| ***Insert*** *(middle)* | Send His Call Key & Exchange Key | His call & Exchange |
| ***Ctrl−Enter*** | | Log contact |

## 13.8 File Menu Selections

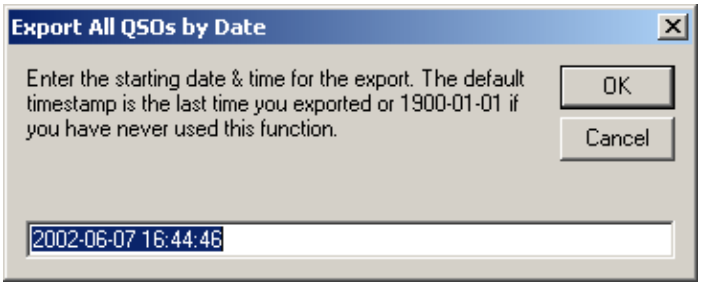


Note: a database is a single Access 2000 database file. It has an extension of .mdb. In each database are held zero or more general or contest logs. Our long term direction is to allow operations such as qsl printing and viewing of all contacts in a database. For the time being, only one contest or general log within a database may be viewed or edited at a time.

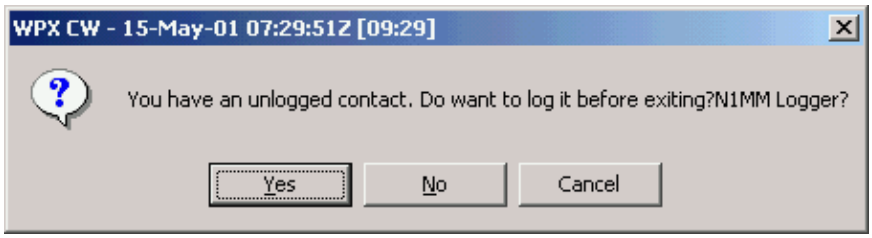
- **Choose Contest** − Choose an existing contest or create a new contest (within the current database).
- **New Database** − Create a new log database.
- **Open Database** − Open an existing log database.
- **Copy (and Compact) Database** − Copy the database to a new database file, and compress the data at the same time. This function can be used to reduce the size of the database after importing a new CTY.DAT file. The original database is not changed, nor does the program start using the new database, unless Open Database is subsequently used to open the new database.
  *Note: Copying a database also compresses it. If you have deleted contests from your database, you may want to copy it to reduce the space it takes up. Deleted contests and contacts are definitely gone!*
- **Copy This Contest to Another Database** − Copy the setup information and QSO's from the current contest to another database. The database should exist, if not create it first with 'New database'.
- **Import**
  - **Import ADIF from file...** − Load the data from an ADIF file into the current database. ADIF is being used to import into and export from many contest and logging programs. It is not possible to import a contest if the contest ID doesn't match the current contest. So the exported and imported contest have to be the same. If not look in the FAQ section what to do.
  - **Import Program Settings from file...** − Import the program settings which have been exported with 'Export Program Settings to file'. In this file called 'N1MMsettings.txt' are all settings except the window settings from the program. *The program will exit after importing!*
  - **Import Windows Settings from file...** − Import the window settings which have been exported with 'Export Windows Settings to file'. In this file called 'N1MMwindows.txt' are all window settings except the program settings from the

program. *The program will exit after importing!*

- **Export**
  - **Export ADIF to file...** − Create an ADIF file. This file can be used to import into a logging program or contest program (like this one).
  - **Export ADIF to file by date from all logs...** − Create an ADIF file from all qso's in all logs when you are currently logging DX. Otherwise, it exports only from the contest you are logging in. The first time the default date from which qso's will be exported is 1900−01−01 (yyyy−mm−dd). The second time the default date and time will be shown by the program and will be the moment you last exported with this option. The date/time can be changed if neccesary, i.e. when opening another (older) database. This function is especially usefull when you liket o export the generated ADIF file into a (general) logging program to do award tracking etc.




  - **Export Cabrillo to file...** − Create a Cabrillo file for contest log submission. Make sure that the Station information Tools/Edit Station Data) and overall contest information (File/Choose Contest) is correct before creating this file. It is also a good idea to rescore the contest before submitting.
  - **Export to File (Generic)...** − Creates a generic file from the contest log. This file can be used to import into a spreadsheet or database program or your logging program if it can't import ADIF format.
  - **Print Score Summary to File** − Print a summery sheet including the shown details to a file with the name [Callsign].SUM Example: N1MM.SUM The number of contacts printed on the summery sheet are including dupe contacts.
  - **Export Program Settings to file...** − Export the program settings to a file called 'N1MMsettings.txt'. In the Entry Window pane the message 'N1MMSettings.txt created' will be shown. Many settings are written into the registry when the program is closed. Advised is to export after (re)starting the program. The window settings can be written to file with the next menu item.
  - **Export Windows Settings to file...** − Export the window settings to a file called 'N1MMwindows.txt'. In the Entry Window pane the message 'N1MMWindows.txt created' will be shown. All window settings are written into the registry when the program is closed. Advised is to export after (re)starting the program. The program settings can be written to file with the previous menu item.
- **Recently used contests/databases** − The most recently used contest/databases will be shown here with a maximum of ten.
- **Exit Alt−F4** − Quit the program. If unlogged contacts are there you will be prompted with the dialog below.



## 13.9 Edit Menu Selections

- **Wipe Out Entry Fields  Ctrl−W** − Clear information about the current contact.
- **Edit Last Contact  Ctrl−Y** − Open a dialog to allow all fields for the last contact to be modified.
- **Add a Note to Last/Current Contact  Ctrl−N** − Add a note to your last or current contact
- **Edit Current Contact** − Open a dialog to allow all fields for the current contact to be modified. Double clicking in the Log window on a contact will open the same dialog.
- **Increase Received NR by 1  Ctrl−U** − Increase the number in the exchange field by 1. You will find this useful when you are in a pileup and you need to keep incrementing the dx station's serial number.
- **Find first  Ctrl−F** − Find the callsign entered in the callsign field in the log, when not found, a message is shown.
- **Find next  Ctrl−G** − Find another instance of the call entered in the callsign field in the log, when not found, a message is shown. You have to start with Find First (Ctrl−F) for the first instance to be found.

## 13.10 View Menu Selections

- **Multipliers by Band** − View a dialog showing multipliers by band or for all bands.
- **Show Last 10 Spots** − Show the last 10 spots for the call in the callsign field. If the callsign field is empty the callsign on the callsign field frame will be used, if any. A Packet or Telnet session with a DX cluster should be present because a query will be send to that cluster.
- **Show Buck/Packet** − Show the Buckmaster information for the call in the callsign field. If the callsign field is empty the callsign on the callsign field frame will be used, if any. A Packet or Telnet session with a DX cluster should be present because a query will be send to that cluster.
- **Show Station** − Show the station information for the call in the callsign field. If the callsign field is empty the callsign on the callsign field frame will be used, if any. A Packet or Telnet session with a DX cluster should be present because a query will be send to that cluster.
- **Show QSL/Packet** − Show the QSL information for the call in the callsign field. If the callsign field is empty the callsign on the callsign field frame will be used, if any. A Packet or Telnet session with a DX cluster should be present because a query will be send to that cluster.
- **Show Sunrise/Sunset** − Show the Sunrise/Sunset information for the call in the callsign field. If the callsign field is empty the callsign on the callsign field frame will be used, if any. (This information is also available in the Info Window). A Packet or Telnet session with a DX cluster should be present because a query will be send to that cluster.
- **Show Buck Internet** − Show the information that QRZ.com has for this call using Internet Explorer. An internet connection should be present.
- **Show Buck Local** − Show the Buckmaster database information for this call. This requires installation of Buckmaster database software and database on the local computer.

## 13.11 Tools Menu Selections

- **Rescore Current Contest** − Rescore the current contest. This is required before submitting a log if CTY.DAT has been changed (if applicable) or if contacts have been modified or deleted during the contest. It may be run at any time but is rather slow.
- **Reload CTY.DAT** − Load a new copy of the country file into the log database. Mostly this file is called CTY.DAT but may have any name. just select the right file when importing and select "Open".
  ***Always load the most recent (and right) CTY.DAT file before entering a contest.***

***Download it from the internet or use the one sent with the most recent update of N1MM logger.***

- **Tune (CW mode)  Ctrl−T** − Turn on the radio and send continuous cw (tune). Escape or Ctrl−T again ends the transmission. When the mode is not CW it will be changed to CW and put back in the mode used before.

## 13.12 Config Menu Selections

- **Change Station Data** − Modify overall Station information − name, address, latitude, longitude, etc.
- **Configure Ports, Telnet Address, Others** − Open the configuration dialog to modify setup options.
- **Enter sends messages (ESM mode)  Ctrl−M** − the so called 'Enter mode'. Messages can be sent by pressing the Enter key. You must correctly match the function keys below to the messages set up in the function key buttons.
  Entire normal contact (Running and S&P) can be handled with the Enter key
- **Spot all S&P QSO's** − Spot the contact when you log it. Watch not to flood the packet network. This feature resets itself every time you start the program.
  The multiplier(s) from the spotted station is/are sent as comment.
  A contact is automatically spotted only when:
  - *"Spot all S&P QSO's"* is checked **and**
  - if your running checkbox is not checked **and**
  - the spot is not already on your bandmap
- **CQ Repeat  Alt−R** − Toggle to let the CQ button give CQ once or repeat
- **Set CQ repeat time  Ctrl−R** − Specify the repeat interval for the chosen Ctrl−Fn key (cw or SoundBlaster) in milliseconds (Auto−CQ). The default value is 1800 msec (1,8 seconds)
- **Dual Rx always on  ' Ctrl−F9** − Selects the mode for the FT−1000mp with Ctrl−F12 if the dual rx (second VFO) is left on or off when returning from vfo B to vfo A.
- **Change Packet/CW/SSB/Digital Message Buttons** − Change the contents of the Packet/CW/SSB/Digital message buttons. The maximum length of text from the Packet, CW, SSB and RTTY buttons is 255 characters.
  - **Change Packet/Telnet Buttons** − Change the contents of the packet/telnet buttons. Note that the use of '&' in the Button Caption will cause the following lettered key to become a "Alt−Hotkey."
  - **Change CW Buttons** − Change the contents of the CW buttons. Note that the use of '&' in the Button Caption will cause the following lettered key to become a "Alt−Hotkey". It can happen that the "Alt−Hotkey" combination already exists!. the first one found by the program, probably in the Menu will be used. Another instance won't be used! Also the packet substitutions can be used. Examples:
    {F1} {F2} {GRID}
    See the possibilities on the Macros page
  - **Change SSB Buttons** − Change the contents of the SSB buttons. Note that the use of '&' in the Button Caption will cause the following lettered key to become a " −Hotkey." It can happen that the "Alt−Hotkey" combination already exists!. The first one found by the program, probably in the Menu will be used. Another instance won't be used!
    There are some special characters which may be used, see the Macros page for the possibilities.
  - **Change Digital Buttons** − Change the contents of the Digital buttons. Note that the use of '&' in the Button Caption will cause the following lettered key to become a "Alt−Hotkey." It can happen that the "Alt−Hotkey" combination already exists!. the first one found by the program, probably in the Menu will be used. Another instance

won't be used! Also the packet substitutions can be used. Examples:
{F1} {F2} {GRID}
There are some special characters which may be used, see the Macros page for the possibilities.

- **Change Telnet Cluster List** − Change the contents of the list of available Telnet Cluster sites that appear in the Configurer dialog under 'Telnet Cluster'. Here you can add, edit or delete telnet cluster sites.
- **Multi−User Mode** − Start the networking mode of N1MM logger (Multiple computers connected to each other)
- **Multi−User Tools** − Menu with Multi operator stations tools
  For more detailed info see Multi−user section.
  - **Talk to another station  Ctrl−E** − Send a message to another station in the network. '*' will send the message to all stations, to send to only one station, replace the '*' with the station number (0−15).
  - **Force Time Sync Now** − Force time synchronisation with the "Master" computer. This happens automatically at start up and every 5 minutes thereafter.
  - **Set your pass frequency  Alt−Z** − Set pass frequency which is broadcasted to all connected computers. A pass frequency is a frequency that you want your other ops to send stations (usually mults) that they work to. Currently the pass frequency isn't displayed anywhere, but it can be sent via cw or rtty by using {PASS n} commands. So on SSB, it's not very useful yet.
  - **Log QSOs at all stations** − Check this option to log all qso's on all stations. All other information (packet spots, pass frequencies) are still distributed to all networked stations if not checked.
  - **Show Connections** − Show connection info from all the network stations.
  - **Resync Logs** − Allows a computer to gather all differing qso's from other computers in the network.
- **Edit Station Computer Names** − Associate the computer numbers (starting with 0) with its Windows Computer names (not IP−addresses)
- **Change Operator Ctrl−O** − Change the callsign of the operator. If you are multi−user, you will be prompted for the operator at startup. The default is the callsign in the station information dialog.
- **Change Exchange Abbreviations** − Change the exchange abbreviations
  - **Change ARRL Section Abbreviations** − Change the list of valid ARRL Sections
  - **Change VE Province Abbreviations** − Change the list of the Provinces in Canada.
  - **Change PA Province Abbreviations** − Change the list of the Provinces in the Netherlands.
  - **Change USA State Abbreviations** − Change the list of the State Abbreviations of the United States.
  - **Change CQ WW RTTY Abbreviations** − Change the list of Abbreviations for the CQ WW RTTY contest.

## 13.13 Window Menu Selections

- **Entry Window  Ctrl−H** − Hot key to return to the Entry Window
- **Log  Ctrl−L** − Display the Log window
- **Bandmap  Ctrl−B** − Display the Bandmap window
- **Packet** − Display the Packet/Telnet window
- **Check** − Display the Check window
- **Available Mult's and Q's** − Display the Available Mult's and Q's window
- **Info** − Display the Info window
- **Score Summary** − View a dialog showing score summary by band

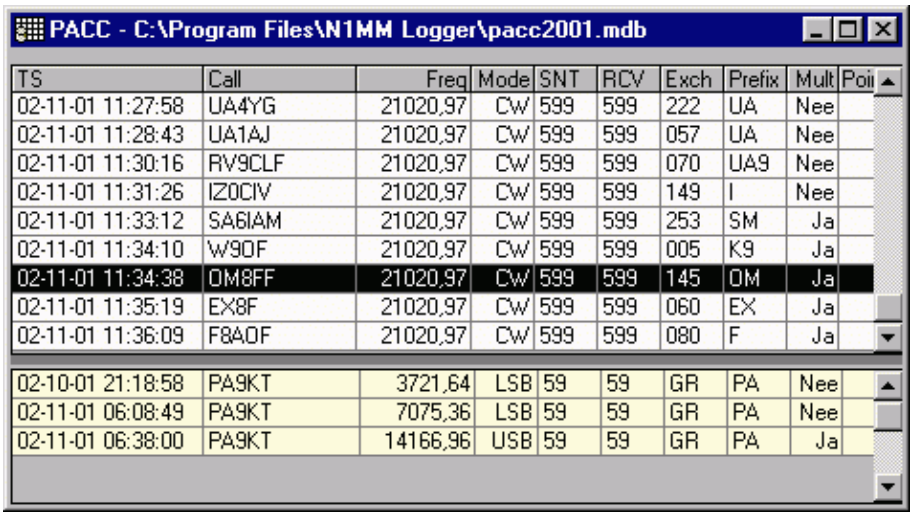
- **CW Key  Ctrl−K** − Display the CW Key window
- **RTTY/MMTTY Interface** − Displays the RTTY/MMTTY interface window
- **PSK31 Interface** − Displays the PSK interface window

## 13.14 Help Selections

- **Help  Alt−H** − Show this help file. Note that pressing Alt−H in any window will show the help specific to that window. You have to download the help file separately from the N1MM homepage and copy the file into the directory that contains the Logger program.
- **Manual** − Show the PDF version of the help file, this version can easily be printed. You have to download the manual separately from the N1MM homepage and copy the file into the directory that contains the Logger program. At that point, clicking on Help−>Manual should launch the Adobe Acrobat Reader and display the Manual.
  If you don't have the Acrobat Reader (version 3 or higher is needed), you can download a free copy from http://www.adobe.com/support/downloads/acrwin.htm
- **ARRL Contest Calendar Page** − Go to ARRL contest calendar site on the internet.
- **SM3CER Contest Calendar** − Go to the SM3CER contest calendar site on the internet.
- **WA7BNM Contest Calendar** − Go to the WA7BNM contest calendar site on the internet.
- **N1MM Logger Download Site** − Go to the N1MM logger Download site on the internet (Yahoo Files section).
- **N1MM Logger Home Page** − Go to the N1MM logger Home page.
- **Download Help** − Download the Help file from the N1MM logger Home page.
- **Yahoo Discussion Group** − Go to the Yahoo Discussion Group page on the internet.
- **Report Bugs/Request Features/Request Support** − Go to the site from G4UJS. Select 'Logging Software' to report bugs or request features or support.
- **Email Problem Report** − Send a problem report by Email to Tom, N1MM. The Report gives detailed info about the problem and some program (configuration information) and computer information (speed, processor etc). To send a report some questions must be answered.
  - ♦ Long description of the problem
  - ♦ Enter your smtp server name. (only first time)
    - ◊ Just check your email program and look for the name of the outgoing email server that you use. Use that name for the smtp server name. Example: smtp.freeler.nl
- **View Revision History (Update Log.wri)** − Shows the revision history file from the program.
- **View database statistics** − Shows the following database statistics:
  Number of reads, Cached reads and Cached reads from read−ahead cache.
- **Report Score to 3830** − Go to the 3830 score reporting site on the internet.
- **About** − Show the About Dialog. See the tower from Tom (N1MM) with a Cushcraft X9 at the top!

# 14 Log Window

**Your Log window will be similar to this one.**




| TS | Call | Freq | Mode | SNT | RCV | Exch | Prefix | Mult | Poi |
|---|---|---|---|---|---|---|---|---|---|
| 02-11-01 11:27:58 | UA4YG | 21020,97 | CW | 599 | 599 | 222 | UA | Nee | |
| 02-11-01 11:28:43 | UA1AJ | 21020,97 | CW | 599 | 599 | 057 | UA | Nee | |
| 02-11-01 11:30:16 | RV9CLF | 21020,97 | CW | 599 | 599 | 070 | UA9 | Nee | |
| 02-11-01 11:31:26 | IZ0CIV | 21020,97 | CW | 599 | 599 | 149 | I | Nee | |
| 02-11-01 11:33:12 | SA6IAM | 21020,97 | CW | 599 | 599 | 253 | SM | Ja | |
| 02-11-01 11:34:10 | W9OF | 21020,97 | CW | 599 | 599 | 005 | K9 | Ja | |
| 02-11-01 11:34:38 | OM8FF | 21020,97 | CW | 599 | 599 | 145 | OM | Ja | |
| 02-11-01 11:35:19 | EX8F | 21020,97 | CW | 599 | 599 | 060 | EX | Ja | |
| 02-11-01 11:36:09 | F8AOF | 21020,97 | CW | 599 | 599 | 080 | F | Ja | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 02-10-01 21:18:58 | PA9KT | 3721,64 | LSB | 59 | 59 | GR | PA | Nee | |
| 02-11-01 06:08:49 | PA9KT | 7075,36 | LSB | 59 | 59 | GR | PA | Nee | |
| 02-11-01 06:38:00 | PA9KT | 14166,96 | USB | 59 | 59 | GR | PA | Ja | |

- The **top** grid is the log
- The **bottom** grid shows the contacts in yellow that match the partial or full call entered in the Entry window.

*The relative sizes of the grids can be adjusted by clicking and dragging the gray bar between the grids.* The adjusted sizes are not saved by the program, after a new start the sizes are 'default' again. The width of the log window can not be changed.

## 14.1 Keyboard Assignments

- **Enter (Ctrl−T)** − Edit the contact which is selected.
- **Delete (Ctrl−D)** − Delete the contact which is selected.

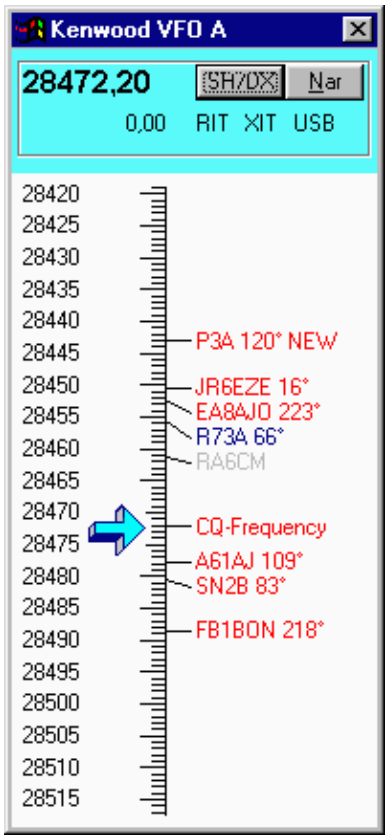
## 14.2 Mouse Assignments

- ***Double−click on a contact*** − *Edit the contact.*
- ***Right−click on a contact*** − *Displays a menu:*
  - **Edit Contact (Ctrl−T)** − Edit the contact.
  - **Delete Contact (Ctrl−D)** − Remove the contact from the log.
    *Warning − Deleted contacts invalidate the computed score. You MUST rescore the contest (Tools/Rescore Contest) before submitting it to the contest sponsor, or the computed score will be incorrect.*
  - **Play Contact** − This selection will be gray, if there is no .WAV recording file for this contact. If it is not gray, the selection can be chosen and the contact audio will play on your sound card. (Make sure you don't have the sound card hooked up to your microphone! Make it switchable between your transceiver headphone)
  - **Jump to this frequency** − Jump to the frequency logged with this contact
  - **www.qrz.com** − Ask information about this station from www.qrz.com (name, address etc). An internet session should be available.

- **Single left click on column title** − Change log sort order.
- **Single right click on column title** − Edit the contact the selected contact.

# 15 Bandmap Window

**Your Bandmap window will be similar to this one.**




The Bandmap Window represents a VFO or a radio. There are two scenarios, for one radio with 2 VFO's shown or for two radios with each one VFO shown.

## 15.1 One radio scenario

With one radio, each bandmap holds one vfo. Typically, VFO A will be on the left and VFO B will be on the right. If you want to change VFO's, just use the mouse to click on one of the spots in the bandmap or use the Ctrl−left & Ctrl−right arrow keys to change VFO's. The radio information box at the top of the bandmap will change colors as you change VFO's. The selected Bandmap will have a blue top part.

## 15.2 Two radio scenario

With two radios the operation is exactly the same, except that each bandmap represents one of the radios. It is best if one orients the bandmaps in the same position as the radios, left−right or top−bottom. This will make the operation more intuitive.

## 15.3 Other

It is well worth your time to quickly review the Mouse Assignments below in order to become familiar with the functions that the Bandmap provides.

Also important! The usefulness of the Bandmap is greatly enhanced by reading the Key Assignments

The text *CQ−Frequency* will be shown on the bandmap when running stations. It is automatically marked when you press the F1−key or the CQ−button.
When a spot is less than three minutes NEW will be placed behind the call and bearing in the bandmap.

On the title bar of the bandmap you can see what type of radio is connected. It will show Manual − A when no radio is connected or as an example Kenwood VFO A when a Kenwood radio is connected. It will show a B for the other bandmap/VFO.

Normally only one frequency is shown in the top portion of the bandmap. This is the receive and transmit frequency. When working split the transmit frequency is added and shown just below the receive frequency.

## 15.4 Colors of the incoming spots:

- **Red** − A new multiplier, work this one first!
- **Blue** − You haven't worked this one before, get him.
- **Gray** − Dupe or an unworkable station in a non−workable country. Don;t bother working him. I.e. you don't need this station because he is a dupe or you are not even 'allowed' to work him in this contest according the contest rules.

## 15.5 Mouse Assignments

- **Narrow** − Toggle the radio filters from Wide to Narrow, or vice versa.
- **USB** − Click this label to toggle from USB/LSB (band sensitive) via RTTY to CW (radio dependant).
- **RIT Offset (−0.08)** − Click this label to clear the RIT offset.
- **RIT** − Click this label to toggle the RIT on and off.
- **XIT** − Click this label to toggle the XIT on and off.
- **Click on frequency** − Jump to that frequency.
- **Click on call** − Jump to that frequency and place the call on the Entry window callsign frame. When the callsign field is empty, giving space will copy the callsign from the Entry window callsign frame to the callsign field. Also clicking on the callsign in the callsign frame will place call into callsign field, replacing anything that was previously there.
- **Double−Click call** − Jump to that frequency, place call into Entry window callsign field, replacing anything that was previously there.
- **Right−Click call** − Display a list of options for the call (many are Packet Window options).
- **Click dial ticks** − Jump to that frequency.
- **Click frequency label** − Jump to that frequency.

## 15.6 Right−Click on Spotted Call Functions:

If you right click on a spotted call in the Bandmap Window, the following menu items will appear:

- **Zoom In** − Show more spots. (You can also use the numeric keypad + key.)
- **Zoom Out** − Show fewer spots. . (You can also use the numeric keypad − key.)
- **Go to Bottom of Band** − Go to the bottom of this SSB/CW subband.
- **Go to Top of Band** − Go to the top of this SSB/CW subband.
- **Remove Spot** − Remove this spot from the display.

- **Show Last 10 Spots** − Show the last 10 spots for this call in the packet or telnet window.
- **Show/Buck Packet** − Show the Buckmaster information for this call in the packet or telnet window.
- **Show Station** − Show the station information this call in the packet or telnet window.
- **Show QSL/Packet** − Show the QSL information for this call in the packet or telnet window.
- **Show Sunrise/Sunset** − Show the Sunrise/Sunset information this call in the packet or telnet window. (This information is also available in the Info Window).
- **Show Buck/Internet** − Show the information that QRZ.com has for this call using Internet Explorer.
- **Show Buck Local** − Show the Buckmaster database information for this call. (Requires installation of Buckmaster database software and database).



Note: When a command is sent to the packet window, it is sent to whichever connection is active.

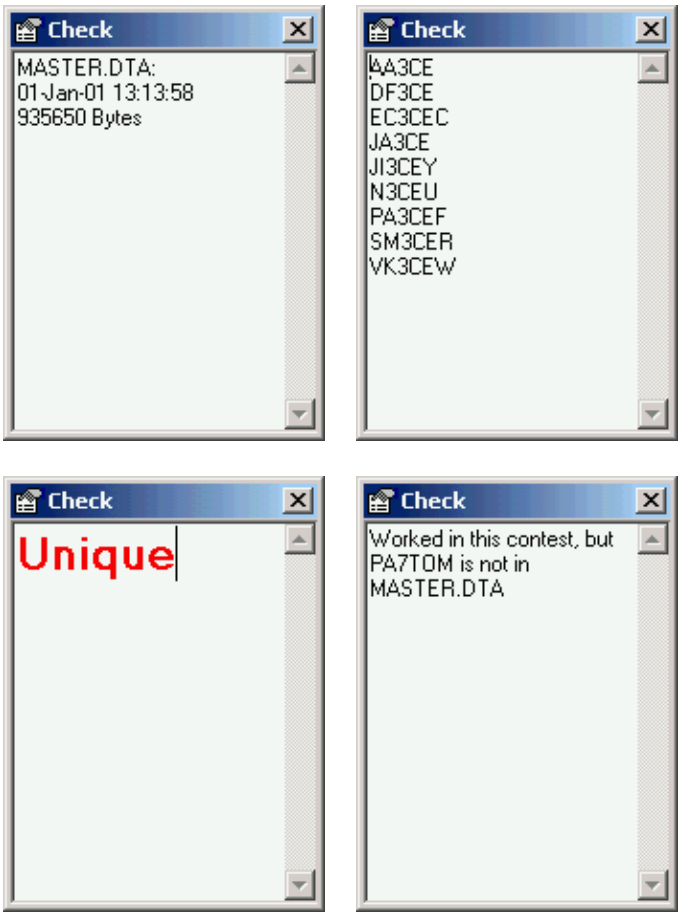
## 15.7 Hovering with the mouse over a spot

Hovering with the mouse over a spot in the Bandmap gives the following info about the spotted station:

- Exact frequency sent by spotter.
- Callsign of spotter.
- The time ago in minutes that the station was placed on the DX cluster network.
- Comment send with the spot.

# 16 Check Partial Window

**Your Check Partial window will be similar to this one.**




Check partial will give all the callsigns from the MASTER.DTA file which match the letters/numbers in the callsign field in the Entry window.

When the program is started and no callsign is entered the Check window will show the date, time and length of the MASTER.DTA file.

Entering **3CE** in the callsign field will give AA3CE, DF3CE, PA3CEF and all others with 3CE in the callsign. When there are no matches UNIQUE will be shown in big red letters.

When a station is Unique in the MASTER.DTA file but is worked a second time in the contest a message will be shown in the Check Window.

## 16.1 Wildcard search

If one or more characters are not known a ? may be used. It needs two sequential characters like **N?MM** or **N1?** to find the call. So **M?M** will not work!
Searching for leading wildcards is also implemented. I.e. **?1M** does match KN1M but also N1MM.

Examples:

| | |
|---|---|
| PA?C | will match PA3CEF, PA0COR etc. |
| P?3C | will match PA3CEF, PA3CUP etc. |
| P?3 | will match no callsigns because there are no two sequential characters |
| ?1M | will match N1MM, KN1M etc |

## 16.2 Mouse Assignments

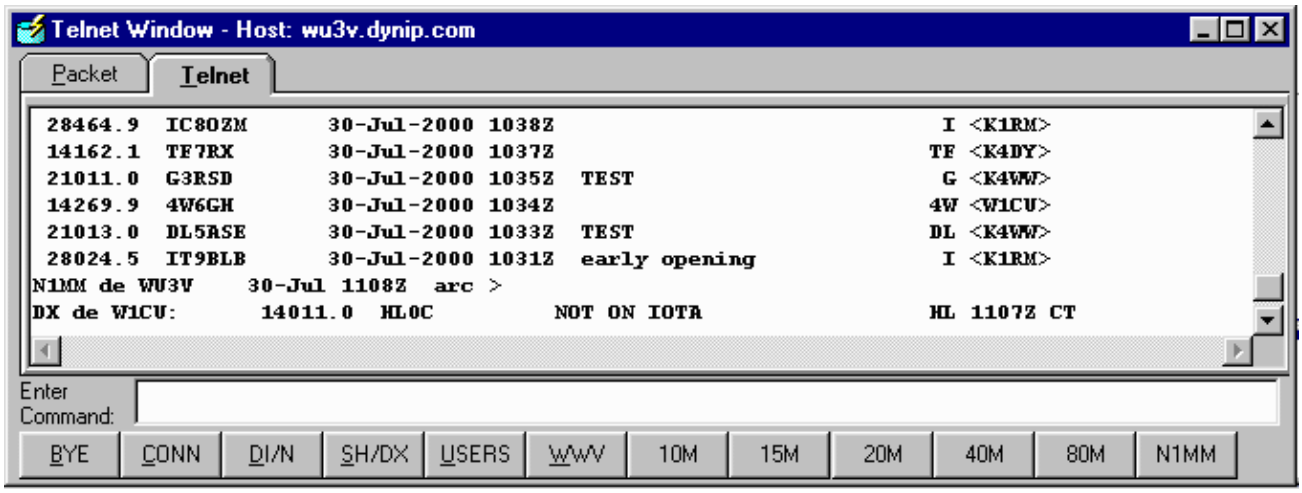
- **Click on call** − Enter this call into the callsign field on the Entry window replacing whatever was there.

*This window only has entries when there is a valid Master.DTA file in the program file directory.*

Master.dta files are available from a number of internet sources. Use your favourite search engine to find one by searching on "master.dta". If you have no favourite search engine, try http://www.google.com.
Watch out! There are "MASTER.DTA" files in different formats, use the right one!!

# 17 Packet Window

**Your Packet window will be similar to this one.**




The button values can be changed by *right clicking* on them or going into the menu: Config / Change Packet/CW/SSB/Digital Message Buttons / Change Packet/Telnet Buttons.
Connect and other messages are shown in the bottom pane from the Entry window.
Status info is given for Telnet in the Telnet window title.
Focus is set to the Entry window when one of the 12 buttons is clicked.

All incoming packet spots are placed on the bandmaps. Also the spots requested with commands like SH/DX etc.
If in the comment of the spot split frequency information is given it will be recognized. When such a spot is selected the transceiver will go into split mode (if applicable). Recognizion by the program is on UP, U, DOWN, DN, D and the word QSX. Examples: QSX 3.838, QSX 4, UP 5, DOWN 2, U 5 etc.

## 17.1 Initial Button Assignments

- **BYE (F1)** − Log off packet.
- **CONN (F2)** − Connect to packet cluster (you'll need to set your cluster's call in Tools/Change Packet Buttons).
- **DI/N (F3)** − Show new messages  needs the full: directory/new).
- **SH/DX (F4)** − Show last 30 dx spots.
- **USERS (F5)** − Show packet users.
- **WWV (F6)** − Show WWV spots
- **10M (F7)** − Show last 30 10M spots.
- **15M (F8)** − Show last 30 15M spots.
- **20M (F9)** − Show last 30 20M spots.
- **40M (F10)** − Show last 30 40M spots.
- **80M (F11)** − Show last 30 80M spots.
- **{MYCALL} (F12)** − Call for logging into telnet cluster. The callsign is taken from the station information dialog.

## 17.2 Keyboard Assignments

- **Ctrl−C** − Sends Ctrl−C to the TNC which is used by TAPR TNCs.
- **Ctrl−Z** − Sends Ctrl−Z to the TNC which is used by TAPR TNCs.
- **Shift−Escape** − Places an Escape character on the command line which is send to the TNC after pressing Enter. The Escape character is being used by WA8DED/ TF firmware TNCs. The Packet/Telnet window must be active and the cursor must be on the command line. N.B. The Escape key (without the Shift key) makes the Entry Window active.

## 17.3 Mouse Assignments

- **Left−click** − Tune the active radio to the frequency of the spot.
- **Shift−Left−click** − Tune the *in*active radio to the frequency of the spot.
- **Right−click** − Displays a menu:
    - **Set Font** − Change the font of the packet & telnet text boxes. Fixed fonts are recommended, so that columns will line up.
    - **Change Packet/Telnet Buttons** − Change the label and text associated with the packet/telnet buttons.
    - **Configure Ports, Telnet Address, Other** − Displays the 'Configurer' dialog.
    - **Edit Telnet Cluster List** − Displays the 'Change Packet Cluster List' dialog.
    - **Close Port** − Close the packet or Telnet connection (depends on the selected Tab)
    - **Copy** − mark a part of the packet window with the left button, then right−click and choose copy. The selection will disappear before you choose copy, but that doesn't matter. You can then paste into Word or Notepad or whatever you like.

## 17.4 Special keys:

- Holding the Ctrl key while clicking in the packet window will jump the non−active radio to that frequency and make it active

## 17.5 Macro keys

Macro key substitution is supported by the buttons in the Packet window.
The macros which can be used and some examples can be found on the macros page.

## 17.6 How to setup Telnet to access a cluster

1. Add the telnet address to Config/Change Telnet Cluster List. Use gb7ujs.shacknet.nu as a model for how to specify a port other than 21.
2. Choose the new address from the list at the bottom of Config/Configure Ports, Telnet Address, Other.
3. Click on the Telnet tab in the Packet window.
4. Click on the button with your callsign in it (button contents can be changed). This presumes that the cluster you are using is looking for your callsign as the first thing to be sent (it mostly is).

## 17.7 How to add/edit/delete a Telnet cluster

There are three places where you can get to the 'Change Telnet Cluster List' dialog. Select one of them.

- Right click in the Packet / Telnet window and select 'Edit Telnet Cluster List' *or*
- Select 'Config' , 'Change Telnet Cluster List'*or*
- Select 'Config' , 'Configure Ports, Telnet Address, Others' and click on the 'Edit' button.

The 'Change Telnet Cluster List' dialog will appear. You can go to the bottom of the list and add what you want. Look at the already entered Telnet clusters to see what to enter.
To delete a row, click on the row "handle" − the gray arrowhead − and press the 'Delete' button on your keyboard.
To edit an entry select the field to update and enter the new information.

## 17.8 Supported Packet clusters:

- **PacketCluster** by AK1A
- **AR−Cluster** by AB5K
- **CLX** by DJ0ZY and DL6RAI
- **DX−spider** by G1TLH
    - DX−spider uses a different SH/DX format, check in 'Configurer / Other' the setting 'Format for DX−spider support'. This will send the right SH/DX message from the button in the top of the bandmaps.
- **DXnet** by F5MZN (Unknown if fully supported but it probably is)
- **Clusse** by OH7LZB (not fully supported, only incoming spots)
    - To make Clusse more compatible give the command **SET/PCMODE YES** (typed in uppercase).
    - Only incoming spots will be decoded by N1MM logger (not the respons to the List command)
    - The List command (SH/DX) has a different format and will not be decoded.

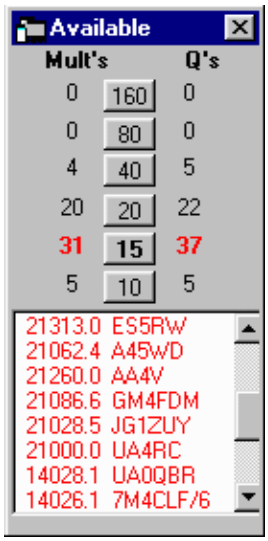
## 17.9 Spotting stations

Spotting stations has to be done from the Entry window. The station entered in the callsign field will be spotted. If the callsign field is empty the last qso made will be spotted.

- Alt−P spots stations
- Ctl−P spots them with a comment.

# 18 Available Mults and Qs Window

**The Available Mults and Qs window will be similar to this one.**




This window consists of two parts, the top shows the band buttons, the bottom the multiplier list box.

## 18.1 The Band buttons

The top part of this window indicate the numbers of multipliers (left row) or non−dupe contacts (right row) available on that band. Red numbers indicate the band with the largest number of contacts (Qs) available. The WARC bands do not appear in this window when contests are being logged.

The band buttons change color per band when a callsign is entered in the callsign field. The color gives information if this station is a new multiplier, a new contact or a dupe on this band. So we can see instantaneously if we need this station on another band.

The active band's button text is shown in **bold**.

### 18.1.1 *Button Assignments:*

- ***Left* click on band button** − Set the *left* radio or *VFO A* to the first spot on the band specified.
- ***Right* click on band button** − Set the *right* radio or *VFO B* to the first spot on the band specified.

### 18.1.2 *Button background colors used:*

- **Pink** − A new multiplier on this band!
- **Turquoise** − A new contact on this band, not a multiplier.
- **Black** − Dupe, you already worked this one.

## 18.2 Multipier List box

The listbox shows the last multipliers which have come in via Packet or Telnet.
The most recent will placed on top of the list, the oldest will disappear from the list.

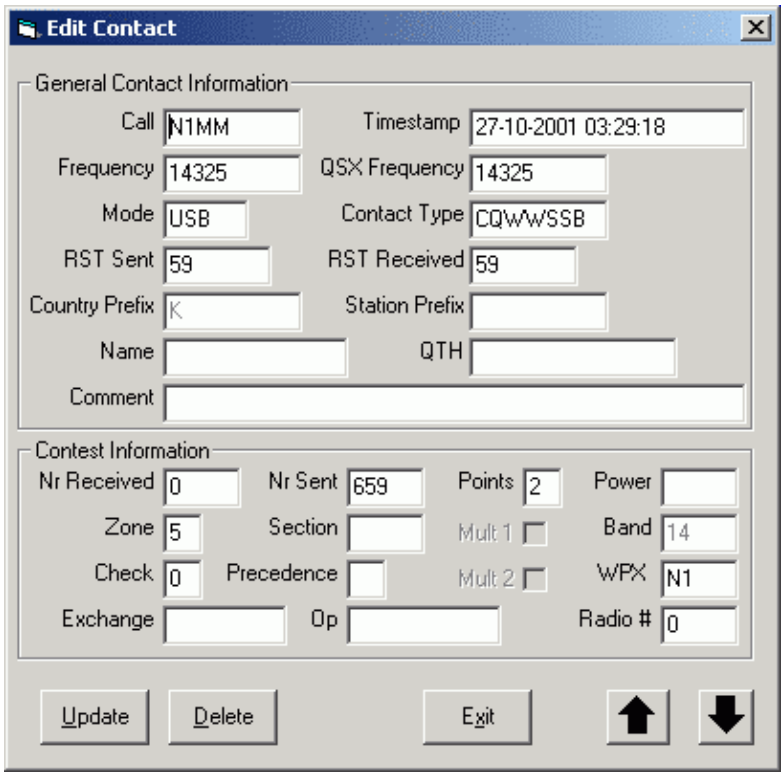
A maximum of 20 multipliers will be shown.

### 18.2.1 *Mouse Assignments:*

- **Left mouse key clicking on a callsign in the listbox**
  - **Single Left click** Go to the frequency with the *active* VFO. The callsign on which you have clicked is placed on the frame of the callsign field in the Entry window.
  - **Single Shift−Left click** The *inactive* VFO changes to the frequency of the callsign.
- **Right mouse key clicking**, a menu will appear
  - **1 − Show Active Radio/VFO** − Show only the last multipliers from the active VFO or Radio.
  - **2 − Show Both Radios/VFOs** − Show the last multipliers from both VFOs or Radios.
  - **3 − Show All Bands** − Show the last multipliers which came in on all bands.

# 19 Edit Contact Dialog

**Your Edit Contact Dialog will be similar to this one.**



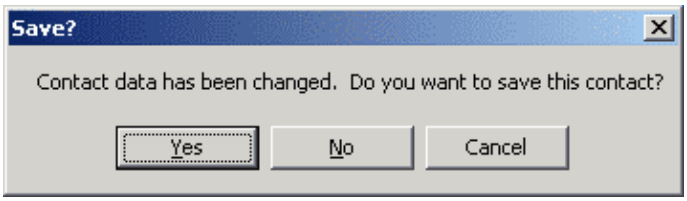

This screen gives the possibility to update contacts after they have been logged.
The fields 'Country Prefix', 'Mult 1' and 'Mult 2' can't be updated because they are recalculated each time after each contact update.
The following modes are allowed to be entered in the 'Mode' field: CW, CW−R, LSB, USB, RTTY, RTTY−R, AM, FM, PSK31, PKT, PAC2, GTOR, FSK31, PSK31, PSK63, PSK125, MT63, MFSK8, MFSK16, HFSK, MTTY, THRB, ASCI, HELL, Q15, PCW.



*HINT. When the program doesn't allow you to log a contact the way you want it, log it as the program expects it and edit the contact in this screen.*

Example: A KG4 station calls and gives a state as exchange, this KG4 is in the USA. The program expects this KG4 to be in Guantanamo Bay and doesn't allow entering a state but wants a number. Enter a number which the program expects and edit the contact in this screen. Of course you have to update CTY.DAT to add the KG4 station so this won't happen again. See the How To section how to do this.

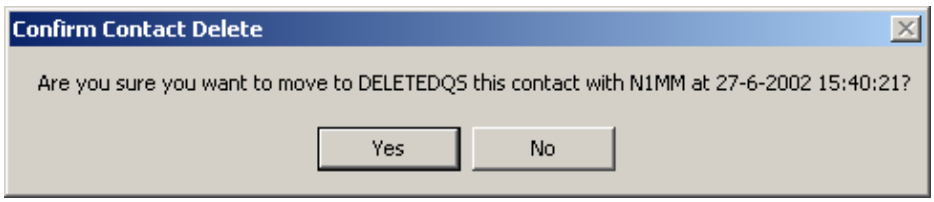
When a contact has been updated and you are moving on to the next/previous qso with the *up or down arrow* the following screen will be shown.




- **Yes** − Save the changes made and move on to the next or previous qso in the log.
- **No** − Don't save the changes made and move on to the next or previous qso in the log.
- **Cancel** − Go back to the qso which has been updated but not saved.

## 19.1 Button Assignments

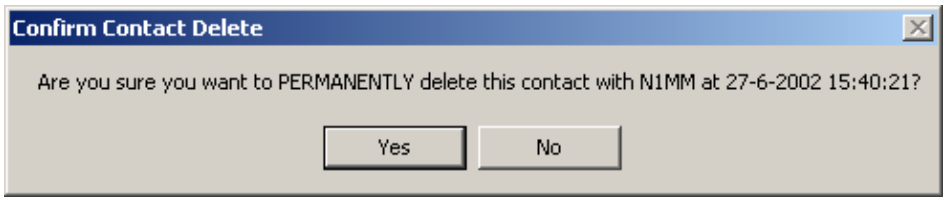
- **Update** − Update the log entry and exit the dialog returning to the last qso in the log.
- **Delete** − Removes a log entry from the current selected contest and exits the dialog returning to the last qso in the log.
    - ♦ When pressing the deleted button in a contest the following message will appear:
        - ◊ Yes, will move the qso to the DELETEDQS 'contest'
        - ◊ No, will cancel deleting the qso




    - ♦ When using multi−user mode it is only possible to delete a qso made on the station which made the qso.
        - ◊ Message: "You may not delete contacts logged by another station while in Multi−User mode. Ask station #[radionumber] to delete it."
          "Delete not performed!"
- **Exit** − Exit this dialog without updating the log entry.
- **Up Arrow** − Go to the next entry towards the beginning of the log. Updated log entries can be saved.
- **Down Arrow** − Go to the next entry towards the end of the log. Updated log entries can be saved.

## 19.2 How to permanently delete a contact?

- Delete one or more qsos's
    - ♦ Select the DELETEDQS 'contest'
        - ◊ File, Select Contest, Select the DELETEDQS 'contest in the 'Choose contest' dialog
    - ♦ Select a qso to delete
        - ◊ When pressing the deleted button the following message appears:
            - · Yes, will delete the qso permanently from the DELETEDQS 'contest'
            - · No, will cancel deleting the qso




- Delete all qso's
  - ♦ Select the DELETEDQS 'contest'
    - ◊ File, Select Contest, Select the DELETEDQS 'contest in the 'Choose contest' dialog
  - ♦ Delete the "DELETEDQS" contest by pressing the 'Delete'key. It will reappear with no qso's.
    - ◊ A confirmation will be asked.

## 19.3 How to place a deleted qso back?

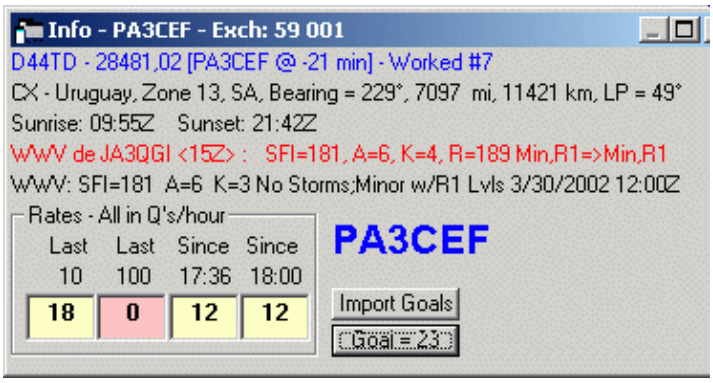
This is not easily done. A possibility is to export the 'DELETEDQS' contest. Then import it into the contest from which it was deleted (ADIF).
Before or after exporting you have to remove all the qso's which you don't want to have imported.

## 19.4 Why move and not delete?

When in a contest the contact is not permanently deleted but moved to the 'contest' DELETEDQS. This way a qso can be recovered when accidently deleted. Permanently deleting the 'deleted' qso's can be done in the 'DELETEDQS' contest. See below for more information. The technical reason to put the qso's in another contest is that Access does not free space until you compact. It doesn't do any good to delete a qso, so why not just move it?

# 20 Info Window

**Your Info window will be similar to this one.**




The info window can be found in the EntryWindow dialog under Window, Info and normally it is a window which you want to have visible.

## 20.1 General

The following information currently appears in this window:

1. Station info last worked station, Country, Zone, Continent, Bearing (short path), Distance miles &km, Bearing (long path)
2. Sunrise/sunset times, Local time
3. Packet spot information
4. Packet talk messages
5. WWV statistics
6. Rate information /goal information (colors) / band change information
7. Callsign of the operator in lower right corner (bold). Set with Ctrl−O.
8. Import ans setting Goals button

The next qso number will be shown on the title bar if it is a serial number contest.

## 20.2 Rate information

The rate information is shown on the bottom part of the info window. Dupe qso's are included in the count.
Shown is the following information

- **Last 10** − rate last 10 minutes (qso's per hour)
- **Last 100** − rate last 100 minutes (qso's per hour)
- **Since hh:mm** − rate one hour back in GMT (qso's per hour)
- **Since hh:00** − rate since the start of the current hour in GMT (qso's per hour)
- **Band Chgs** − number of band changes since beginning of the contest for multi−single operators.
  This counter is only shown when the 'Operator Category' is set to 'MULTI−ONE'.

### 20.2.1 Background colors rate information

The background colors change depending on the goal you have set for this contest.

- **Red** − < 50% OF GOAL
- **Yellow** − < 51−99% OF GOAL
- **Green** − 100+% of goal

### 20.2.2 Buttons

- **Import Goals** − use this button to import hourly rates from the current contest to be used as goal. If the contest you want as a goal is not the current contest, open it, then set the goal.
- **Goal =** − manually edit the hourly rate goals to be used in this contest. Hours should be from 0−23. If an hour is missing the next lower hour will be used.

## 20.3 Setting a goal for the contest

Most people want to make each year more qso's than the year before. So for most of us that is our goal!

It's always nice to know what number of qso's you had last year so you can see where your weak spots are. If this information is not available or you think these numbers are wrong (to low?) set your own! You can set the number of qso's you want to make on an hourly basis and the program will show them on the 'Goal = ' button. On the example screen above the goal for the current hour = 25 qso's

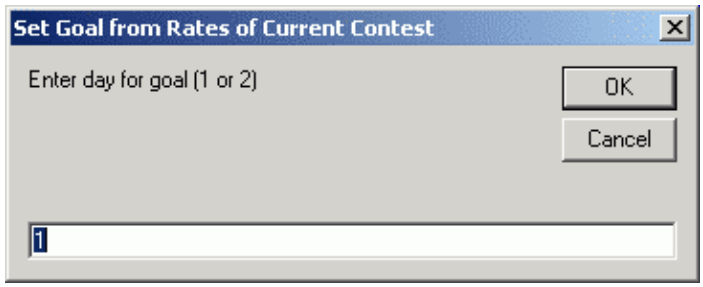
If you have the contest from last year available you can import the number of qso's and adjust afterwards if necessary.

The only difference importing QSOs from a previous contest is what database you have loaded in N1MM logger during setup of the goal numbers. If you have the previous contest (from last year) loaded the program will calculate the qso's per hour and display them. These numbers can be updated to set a new (higher) goal.

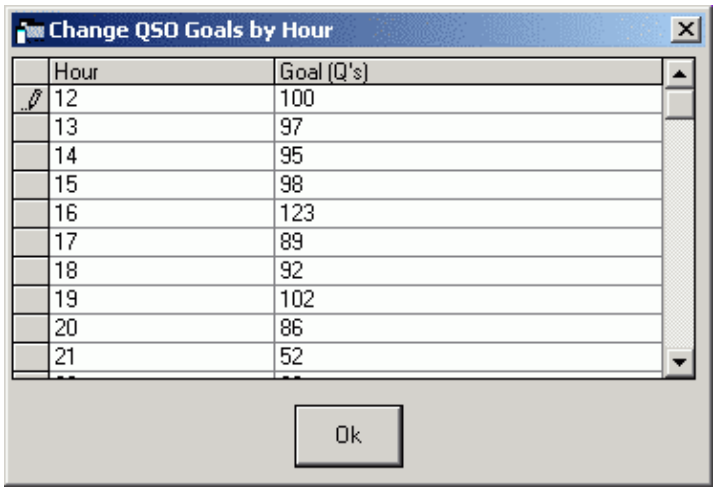
### 20.3.1 Setting the QSO numbers

You can set the number of qso's per hour for day 1 (Saturday) and for day 2 (Sunday).

- Import from a previous contest?
    - ♦ Yes
        - ◊ Load or have loaded the previous contest (mostly from last year) in the program.
        - ◊ Use 'File / Open Database' and select in the database the contest you want.
        - ◊ Another type of contest is allowed to get some figures and hours imported.
    - ♦ No
        - ◊ Have an empty contest loaded or make a new contest with 'File, Choose contest' and select ' Start a new log for a contest'.
- Select button 'Import Goals' on the Info window
  Select the day to set (1 = first day, 2 = second day)



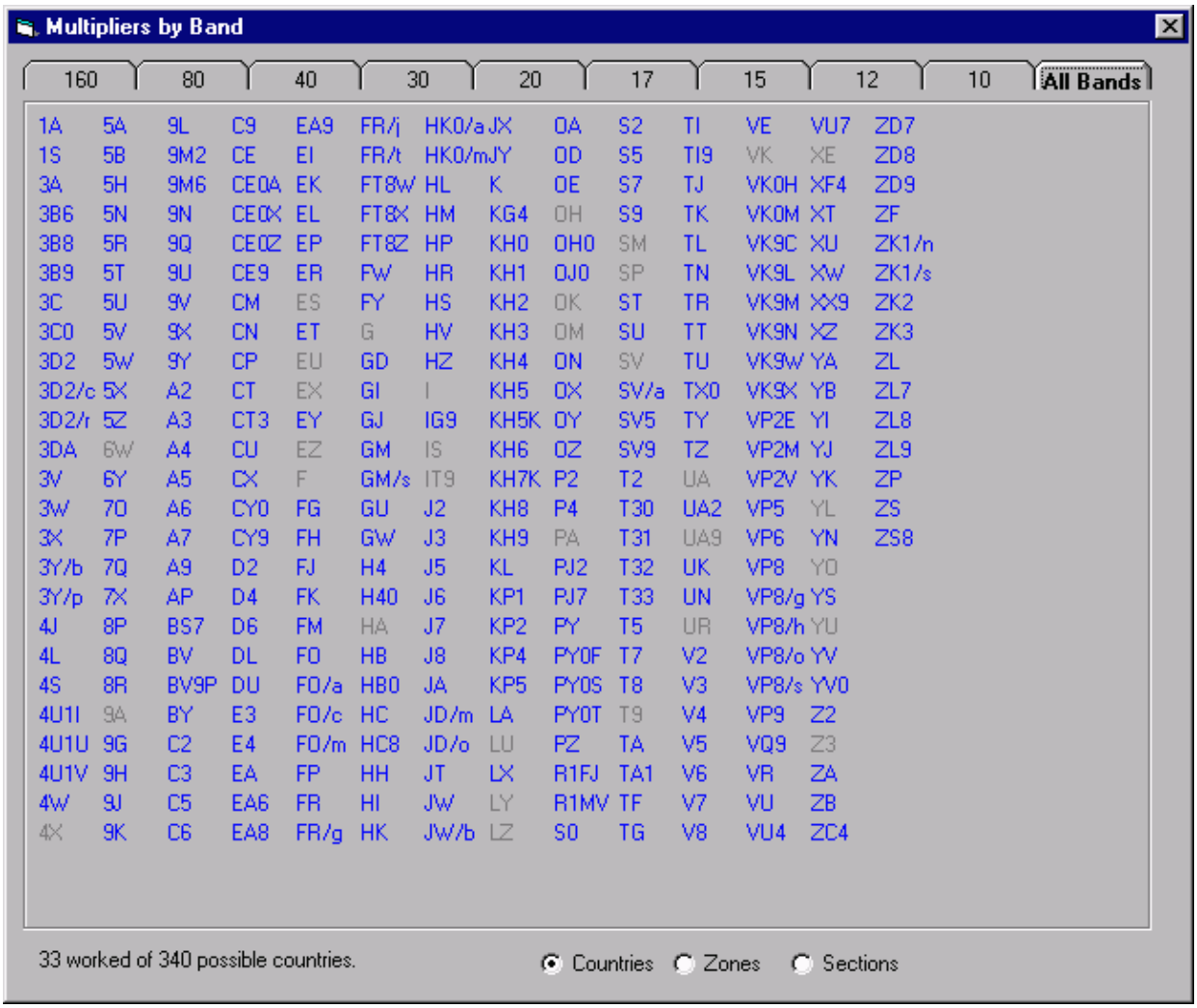

- Select button 'Goal = ' on the Info window
  A screen will appear where you can enter the qso's to make per hour.
  If you not have imported a contest the dialog will be empty otherwise it will be pre filled.
  - ♦ 24 hour contests start at day 1, hour 12 and end at day 2, hour 11
    N.B. Assumed are contests like the PACC etc. which start at 12 GMT on Saturday
  - ♦ 48 hour contests start at day 1, hour 0 and end at day 2, hour 23
    N.B. Assumed are contests like the CQWW, ARRL DX etc which start at 0 GMT on Saturday




Note: The goal is set per database and not per contest in the database. So it is not possible to set different goals for more contests in one database. Again a good reason to use for each (major) contest it's own database.

# 21 Multipliers by Band Dialog

**Your Mults by Band Dialog window will be similar to this one.**




This dialog gives a band by band breakdown of worked and wanted countries/zones/sections (contest dependant). Each band has it's own Tab, the last Tab gives a total for all bands. In the lower pane the number of worked and the total of possible countries/zones/sections is shown. The Multipliers by Band dialog can be found under the View menu item.

## 21.1 Radio Button Assignments

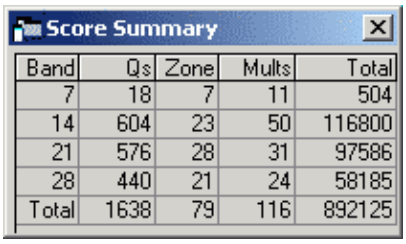
- **Countries** − Show the countries worked in grayfor the band chosen.
- **Zones** − Show the zones worked in gray for the band chosen.
- **Sections** − Show the sections or states worked in gray for the band chosen.

## 21.2 Colors used:

- **Blue** − You need this one, work 'em.
- **Gray** − Worked country, zone or section.

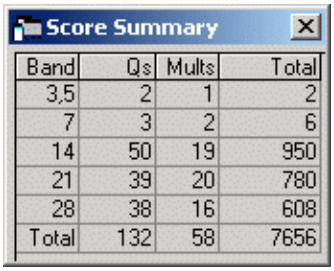
# 22 Score Summary Dialog

**Your Score Summary Dialog will be similar to these.**




| Band | Qs | Zone | Mults | Total |
|---|---|---|---|---|
| 7 | 18 | 7 | 11 | 504 |
| 14 | 604 | 23 | 50 | 116800 |
| 21 | 576 | 28 | 31 | 97586 |
| 28 | 440 | 21 | 24 | 58185 |
| Total | 1638 | 79 | 116 | 892125 |

Example screen CQWW SSB dialog




| Band | Qs | Mults | Total |
|---|---|---|---|
| 3,5 | 2 | 1 | 2 |
| 7 | 3 | 2 | 6 |
| 14 | 50 | 19 | 950 |
| 21 | 39 | 20 | 780 |
| 28 | 38 | 16 | 608 |
| Total | 132 | 58 | 7656 |

Example screen PACC dialog

The Score Summary dialog displays the score for the current contest with the points that have been achieved by band (as a single band entry). Totals for points, mults and score are also shown. The dialog can be found under the View menu item.

Note: If contacts are changed or deleted in Log Window then the displayed statistics may be incorrect. You may use Tools/Rescore to correct (rescore) the totals.

Note2: The number of contacts shown on screen and printed on the summery sheet are <u>including</u> dupe contacts.

# 23 Multi User Support

**This feature is still in initial development. Use on test databases only!**

It is possible to use N1MM logger in Multi−User Multi−Transmitter operation. For this to work you need at least two networked computers with a maximum of 15. These computers need to have network interface cards. The networking protocol is not important so IP, IPX, NETBEUI all may be used.
The network needs a so called "Master" station. The "Master" station is the one that sets the time, connects to packet/telnet, etc. The Master station has number 0.

## 23.1 Features

- Maximum of 15 networked computers with one 'master' station.
- Use of standard network interface cards (NICs)
- IP−addresses and Windows computer names may be used during configuring
- Talk capability between networked stations
- Automatic time synchronization
- Pass frequency information between stations
- Packet
    - Distributed to all connected computers
    - The ability to send packet commands to the master station, from there it will be send out to the cluster.
- Error messages when a station can't be questioned/updated

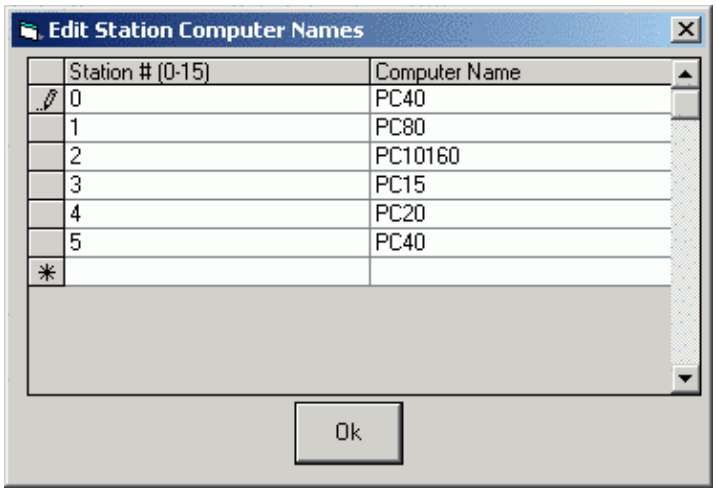
## 23.2 Configuration

Assumed is that the network is setup and working correctly so every computer can ping and 'see' all the other computers in the 'Networking environment' (My Network Places etc). If not this is the first thing you have to establish. It is not important if the network uses twisted−pair or coax cable etc.
A network connected to the computers serial ports as being used in older DOS programs is not supported.

- **Setup all the computers**
    - Setup all the computers with their radio's as if they were being used stand−alone. So the radio can be controlled, PTT/CW/.Wav files are working etc. Just as you like it.
    - All computers have to use the same version of the program N1MM logger.

- **Only for the "Master" station**
    - Packet/Telnet has to be working **only** on this computer.
    - Set the computer clock to the right time. Every computer will use this time!
    - This has to be station **0** !!!

- **Setup the Computer numbers with their associated names on all computers**
  Your window will be similar to this one. This is an example of a six computer network.




- ♦ Go to "Config | Edit Computer Names"
  - ◊ Station # − The "Master" station *MUST BE* number 0 and the others are numbered 1,2,3 in order.
  - ◊ Computer Name − in the dialog is the Windows name of the computer or IP−address.

- **All 'other' networked stations** (not the "Master" station)
  - ♦ Select the Telnet window to have all packet cluster info shown.
    - ◊ The Packet window won't give any info.

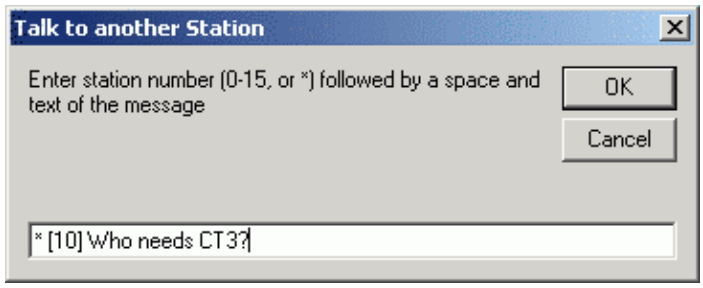
- **Start Multi−user mode**
  - ♦ Go to "Config | Multi−User Mode"
    Clicking on this selection will enable this option.

## 23.3 Multi−User Tools

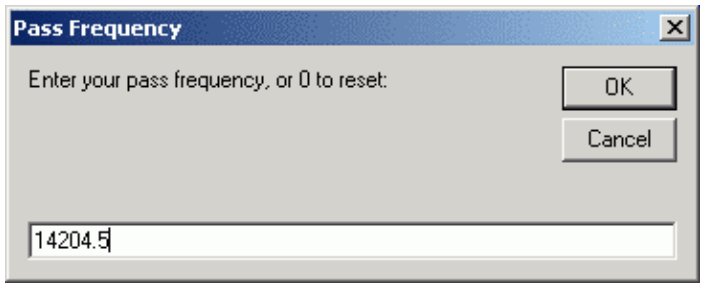
Adding and deleting qso's all works automatically. Also that the bandmaps are filled with spots from the packet/telnet connection from the "Master" station.
Below are some tools which you may use.

Go to " | Multi−User Tools"

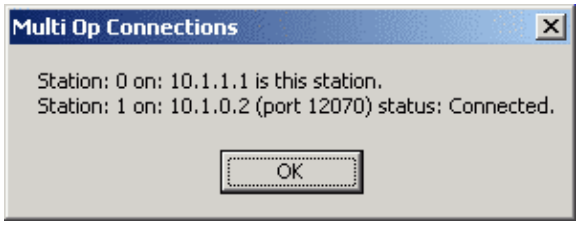
- **Talk to another station** **Ctrl−E** − Send a message to one or all stations.
  Enter station number (0−15 or *) followed by a space followed by the text of the message. Default the program places a * and behind that the band of the station who sends the message.
  Possible station numbers
  - ♦ ***** − will send the message to all stations
  - ♦ **0** − send a message to station 0 (Master station)
  - ♦ **1** − send a message to station 1
  - ♦ Etc.




- **Force Time Sync Now** − Force date and time synchronization with the "Master" computer. This happens automatically at start up and every 5 minutes thereafter.
- **Set your pass frequency Alt−Z** − Send the frequency that you would like other stations to send contacts to. The pass frequency will be sent to all your multi−user computers currently connected. If you just want stations sent to your CQ frequency, you do not need to set the pass frequency. At the present time, the pass frequency is reset only after restarting the program. If you put {PASS 3} in one of your CW or RTTY messages, the current pass (or cq) frequency for station #3 will be sent in the message. When sent in cw, the program will automatically substitute 'R' for the decimal point. DO NOT enter 'R' in the pass frequency. 0 to reset your frequency. The pass frequency is shown in the first bottom pane of the Entry window when entered.

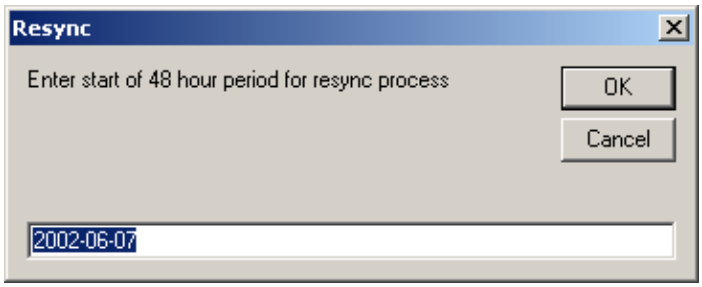



- **Log QSOs at all stations** − Check this option to log all qso's on all stations. All other information (packet spots, pass frequencies) are still distributed to all networked stations.
- **Show Connections** − Show connection info from all the network stations.




Status messages:

  - **Connected** − a connection has been made with that station
  - **Listening** − listening for the master station, no connection made (yet)
  - **Error** − the Master station is not there (or not in Multi−user mode)
- **Resync Logs** − Allows a computer to gather all differing qso's from other computers in the network. You have to enter the start date for the resync (48 hour contests).




## 23.4 Macro keys

Macro key substitution is supported by most programmable buttons in the program. For Multi−user mode there are a few specific macros which can be found on the macros page.

## 23.5 Other info

- Deleting qso's made by another station in a Multi−user situation is not allowed, a warning message is shown.
- Station 0 sends all incoming spots to every station so the bandmaps are being filled. Use the **Telnet** window (not the Packet window) on the other computers in the network. If you send a message to the packet cluster from any station in the network it will be sent out to packet/telnet via computer 0. The received answer from the packet cluster will be send out on the network.
- The program can't be shutdown while initializing Multi−user otherwise unpredictable situations could occur.
- You will be prompted for the operator call if it has not been entered (with Ctrl−O). Periodic warning message will be shown if no operator has been specified
- The Info window is flashed red when a message arrives.
- When going through the possible contests you will see a "contest" DELETEDQS. This is not a contest but deleted qso's will be put in here by the program, this is especially for multi−user support.

# 24 Key Assignments

## The keys below work from all main windows

## 24.1 General Key Assignments

- **Space** − The spacebar will jump from field to field filling in defaults like the callsign from the frame, 59/599, and information from previous contacts with this station. ***SPACE IS THE PREFERRED TAB CHARACTER.***
- **Tab** − Jump to the next entry field in the Entry Window.
- **Shift−Tab** − Jump to the previous entry field in the Entry Window.
- **Alt−H** − Show this help file. Note that pressing Alt−H in any window will show the help specific to that window.
- **Ctrl−Tab** − Toggle between the Entry window and the Packet window.
- **Alt−F4** − Leave the program, you are being asked if you are sure.

## 24.2 Active Radio/Bandmap Control Key Assignments

- **Ctrl−Down Arrow** − Get next spot higher in frequency that is not a duplicate. If you are operating single mode, your mode won't change when jumping between spots.
- **Ctrl−Up Arrow** − Get next spot lower in frequency that is not a duplicate. If you are operating single mode, your mode won't change when jumping between spots.
- **Alt−Ctrl−Down Arrow** − Get next spot higher in frequency that is a *multiplier*. If you are operating single mode, your mode won't change when jumping between spots.
- **Alt−Ctrl−Up Arrow** − Get next spot lower in frequency that is a *multiplier*. If you are operating single mode, your mode won't change when jumping between spots.
- **Ctrl−Left**
  - ♦ One radio − Switch to VFO−A
  - ♦ Two radio − Switch to left radio
- **Ctrl−Right**
  - ♦ One radio − Switch to VFO−B
  - ♦ Two radio − Switch to right radio
- **Ctrl−Page Up** − Go up one band. WARC bands are being skipped while logging for a contest.
- **Ctrl−Page Down** − Go down one band. WARC bands are being skipped while logging for a contest.
- **Up Arrow** − Tune radio down 100 Hz on SSB, 20 Hz on CW.
- **Down Arrow** − Tune radio up 100 Hz, 20 Hz on CW
- **Page Up** − Tune radio down 10 kHz.
- **Page Down** − Tune radio up 10 kHz.
- **Numeric keypad + (plus)** − Zoom the bandmap to show fewer stations (less bandwidth)
- **Numeric keypad − (minus)** − Zoom the bandmap to show more stations (more bandwidth)
- **Pause** − Change to non−active radio or vfo.
- **F9** − Set frequency or offset to current frequency for the active radio.
  The frequency can also be set in the Callsign textbox in the Entry Window entering it with Enter.
- **Ctrl−F7** − Set split frequency or offset to current frequency for the active radio. More information about working split can be found in the Using the program section.
- **F10** − Swap between vfo's (one radio) or radios (two radios).
- **Alt−Q** − Jumps to the last CQ frequency on this band.

- **Alt−Ctrl−Q** − Jumps to your last used CQ frequency on *any* band and tune active bandmap to that frequency.
- **Ctrl−T** − Turn on the radio and send continuous cw (tune). Ctrl−T again or the Escape key ends the transmission.
- **Alt−R** − Turn on repeat mode.
- **Shift−F12** − Jump to your last frequency.

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- **Ctrl−F9** − Selects the mode for Dual radio toggle (Ctrl−F12)
    - ♦ Selected − The sub receiver will be left on (blinking green RX led)
    - ♦ Not selected − The sub receiver will switched off (RX led off)
- **Ctrl−F12** − Dual radio toggle

## 24.3 Non−Active Radio/Bandmap Control Key Assignments

- **Ctrl−Shift−Down Arrow** − Get next spot higher in frequency.
- **Ctrl−Shift−Up Arrow** − Get next spot lower in frequency.
- **Alt−Shift−Ctrl−Down Arrow** − Get next spot higher in frequency that is a *multiplier*. If you are operating single mode, your mode won't change when jumping between spots.
- **Alt−Shift−Ctrl−Up Arrow** − Get next spot lower in frequency that is a *multiplier*. If you are operating single mode, your mode won't change when jumping between spots.
- **Alt−Shift−Q** − Jumps to your last CQ frequency on the inactive vfo/radio.
- **Ctrl−Shift−Page Up** − Go up one band.
- **Ctrl−Shift−Page Down** − Go down one band.

## 24.4 Logging Key Assignments

- **Enter**
    - ♦ Log contact, when 'Enter sends message' is *off* in configurer dialog
    - ♦ Sends message when 'Enter sends message' is *on* in configurer dialog. The send messages depend on the field values i.e. in which field the cursor is in the Entry Window.
- **Space** − preferred TAB character
    - ♦ Jumps from callsign to Exchange field or vice versa.
    - ♦ Other fields' default values will be filled in
    - ♦ If there is a call on the callsign frame and if the callsign field is empty, the call from the frame will be placed in the callsign textbox.
- **Ctrl−Enter** − Send End of Contact message key and log the contact.
- **Insert** − Sends His Call key followed by the Exchange key.
- **Alt−W** − Wipe Out Entry Fields, clear information about the current contact (= Ctrl−W).
- **Ctrl−W** − Wipe Out Entry Fields, clear information about the current contact (= Alt−W).
- **Ctrl−Y** − Edit last contact.
- **Ctrl−D** − Delete the last contact.
- **Alt−D** − Removes the spot from the bandmap which is on the callframe or in the callsign field in the Entry window.
- **Ctrl−F** − Find the callsign entered in the callsign field in the log
- **Ctrl−G** − Find another instance of the call entered in the callsign field in the log after Ctrl−F.
- **Ctrl−M** − Enable/disable 'Enter sends message' mode
- **Ctrl−N** − Add a note to your last or current contact
- **Ctrl−Q** − Quick Edit mode, go back one qso in the log. Enter logs and Escape discards the changes made.

- **Ctrl−A** − Quick Edit mode, go forward one qso in the log. Enter logs and Escape discards the changes made.
- **Ctrl−U** − Increase the number in the exchange field by 1.

| ***Key*** | ***Send function key(s)*** | ***Action(s)*** |
|---|---|---|
| ***Insert*** *(middle)* | Send His Call Key & Exchange Key | His call & Exchange |
| ***Ctrl−Enter*** | | Log contact |

## 24.5 Message Key Assignments

The message send by the function keys F1 through F8 depends if you are in Running mode or in Search and Pounce mode.
It all depends if the Running indicator in the Entry window is marked or not.

Below the function keys with their associated default messages, the function keys can be remapped to others.

| ***Running mode*** | | ***Search and Pounce mode*** | |
|---|---|---|---|
| F1 | **CQ** | Shift − F1 | *** (send my call)** |
| F2 | **Exchange** | Shift − F2 | **Exchange** |
| F3 | **QRZ/TU message** | Shift − F3 | **TU de * (send my call)** |
| F4 | *** (send my call)** | Shift − F4 | |
| F5 | **! (send his call)** | Shift − F5 | |
| F6 | **TU** | Shift − F6 | |
| F7 | **?** | Shift − F7 | |
| F8 | **QSO B4** | Shift − F8 | |

- **Ctrl−F1 − Ctrl−F8** − Send the message for the chosen Ctrl−Fn key (cw or SoundBlaster) and repeat it at an interval specified in the configuration window. When the callsign field is changed this repeat function will automatically be cancelled.
- **Esc** − Stop sending cw or SoundBlaster.
- **Ctrl−R** − Set CQ repeat time for the chosen Ctrl−Fn key.

## 24.6 Multi−user keys

- **Ctrl−E** − Talk, send a message to another station in the network.
- **Ctrl−O** − Change operator callsign (Multi−user).
- **Alt−Z** − Set pass frequency which is broadcasted to all connected computers.

## 24.7 'Enter sends message' mode

- **Ctrl−M**− Toggle 'Enter Sends Message' mode

| | | *Running mode* | *Search and Pounce mode* |
|---|---|---|---|
| **Callsign field** | **Exchange field** | **Enter sends:** | **Enter sends:** |
| Empty | Empty | **CQ de * (Send my call)** | *** (Send my call)** |
| Filled | Empty | **! (Send his call) & Exchange** | *** (Send my call)** |
| Filled | Filled | **TU de * (Send my call)** | **Exchange** |

## 24.8 Packet/Telnet Key Assignments

- **Ctrl−P** − Spot the station entered in the callsign field as a spot to the active cluster connection, either packet or telnet. You will be prompted for a comment. If no station is entered in the callsign field, the last station worked this session will be spotted.
- **Left−click** − Tune the active radio to the frequency of the spot.
- **Shift−Left−click** − Tune the *in*active radio to the frequency of the spot.

## 24.9 CW Key Assignments

- **F11** − Adjust CW speed down 2 wpm.
- **F12** − Adjust CW speed up 2 wpm.

## 24.10 RTTY Key Assignments

| *Key* | *Button Caption* | *Action (in text)* |
|---|---|---|
| *F1* | **&CQ** | **CQ TEST DE *** |
| *F2* | **&Exchange** | **5NN #** |
| *F3* | **&His Call** | **!** |
| *F4* | **&My Call** | ***** |
| *F5* | **&TU** | **TU DE *** |
| *F6* | **Call/Exch** | **! 5NN #** |
| *F7* | | |

## 24.11 Window Key Assignments

- **Ctrl−H** − Return focus on the Entry window
- **Ctrl−B** − Display the Bandmap window
- **Ctrl−K** − Display the CW Key window
- **Ctrl−L** − Display the Log window

# 25 General RTTY information

## 25.1 General info

*On the radio make sure:*

- Audio processing is off
  - ♦ Speech processing is off
  - ♦ Hi boost is off (Kenwood radios)
- Radio should be in LSB mode
- The most used 'Speed' is 45 Baud (60 words/min)
- The Standard 'SHIFT' is 170Hz
- When using a TNC set 'Mark' to 2125Hz and the 'Space' to 2295Hz
- Don't overrun your finals from the transceiver and/or amplifier
  - ♦ 50 percent duty cycle is mostly ok
  - ♦ See the Interfacing section of this help for urls and tips on interfacing.
- The BAUDOT character−set does not have all ASCII characters so some special characters such as (~ * _ @ # =)? can not be printed/transmitted.

## 25.2 Common RTTY Frequencies

| **USA (kHz)** | **USA (kHz)** | **Europe/Africa (kHz)** |
|---|---|---|
| *Common* | *DX freq.* | *Common* |
| 1800 − 1840 | 1830 − 1840 | |
| 3605 − 3645 | 3590 | 3580 − 3620 |
| 7080 − 7100 | 7040 | 7035 − 7045 |
| 10140 − 10150 | | 10140 − 10150 |
| 14070 − 14099,5 | | 14080 − 14100 |
| 18100 − 18110 | | 18100 − 18110 |
| 21070 − 21100 | | 21080 − 21120 |
| 24920 − 24930 | | 24920 − 24930 |
| 28070 − 28150 | | 28050 − 28150 |

## 25.3 Popular RTTY contests

| Date | Contest | Remarks |
|---|---|---|
| January 1st | SARTG New Year Contest | SARTG Home page |
| First weekend in January | ARRL RTTY Roundup | Website |
| Last full weekend in January | BARTG RTTY Sprint contest | Website |
| First weekend of February | Mexican RTTY Contest | |
| Second weekend of February | CQ World−Wide WPX RTTY | Website |
| First weekend of March | Open Ukraine RTTY Championship | |
| Third weekend of March | BARTG Spring RTTY Contest | Website |
| First weekend of March | Open Ukraine RTTY Championship | Website |
| March | North America 'Sprint' | Website |
| First weekend of April | EA RTTY Contest | |
| Last weekend of April | SP DX RTTY Contest | |
| First weekend of May | ARI International DX Contest | |
| Second weekend of May | A. Volta RTTY DX Contest | |
| Second weekend of June | ANARTS WW RTTY Contest | |
| Third weekend of July | North America QSO Party | |
| Last weekend of July | Russian RTTY WW Contest | |
| Third weekend of August | SARTG WW RTTY Contest | Three separate periods SARTG Home page |
| Last weekend of August | SCC RTTY Championship | SCC Home page |
| Last weekend of September | CQ WW RTTY DX Contest | |
| First weekend of October | The PSK31 Rumble | Website |
| Second weekend of October | B.A.R.T.G. RTTY SPRINT | |
| Third weekend of October | JARTS World Wide RTTY Contest | |
| First weekend of November | Ukrainian DX Contest | |
| Second weekend of November | Worked All Europe DX Contest | Website |
| First weekend of December | TARA RTTY Sprint | Website |
| Third weekend of December | OK DX RTTY Contest | |

## 25.4 Some RTTY links

**RTTY**

- Welcome to RTTYINFO http://www.rttyinfo.net
- SM3CER Contest Service http://www.sk3bg.se/contest/
- DJ3NG http://www.qsl.net/dj3ng
- The RTTY journal http://www.rttyjournal.com/index.htm
- RTTY.com http://www.rtty.com/
- Jim's Gazette HREF="http://www.n2hos.com/digital/">http://www.n2hos.com/digital/

**MMTTY**

- Info and downloads from MMTTY at the web Site by Ken, VE5KC at http://www.qsl.net/mmhamsoft/
- Internet group by Bill, KB4IJ at http://groups.yahoo.com/group/MMTTY

# 26 RTTY support for External modems and MMTTY

The interface will operate with MMTTY and ANY TNC because the command for the TNC are not hard coded into the program. This has to be done by the user of the program:−)

## 26.1 Configure and test your External TNC

Make sure your radio and TNC work on your computers COM port by testing them with an existing terminal program. Connect your TNC/Radio into your computers COM port. The Hyperterm terminal program is included with Windows and works well. Make sure you note all COM port parameters. You should be able to tune in a RTTY signal and print it on the Hyperterm terminal program.

The interface has been tested with the three mentioned TNC's below and work fine with them. Any other TNC should also work as long as you place the right commands for that tnc in the macros.

### 26.1.1 PK232

- Make sure the PK232 autobaud is set and the unit is set to RTTY mode.
- Launch Hyperterm and set its parameters to 1200 baud, 8−data, no−parity, 2 stop bits, and no flow control.
- Connect the PK−232 to the port configured in Hyperterm.
- Turn on the PK232.
- Type a few "*" characters so your PK232 will auto−baud to the 1200 baud rate.
- Now place the PK232 in the RTTY mode by typing the command "BAUDOT". It should respond OPMODE now BAUDOT.
- Turn the threshold pot full clockwise and make sure the LED is on.
- Also make sure the unit is set up for software handshaking XFLOW = ON.
- Once you are communicating with the PK232 and have it in the BAUDOT mode, you can also tune in a RTTY signal and it will decode and print on the Hyperterm screen.
- Now try a transmit by typing a "X" on the keyboard followed by several characters that you wish to transmit. To get back to receive, type a Ctrl−C and a "R".
- If you have problems, consult your PK232 manual.
- Now exit the Hyperterm program and start Logger.

### 26.1.2 KAM

- Launch Hyperterm and set its parameters to 9600 baud, 8−data, no−parity, 1 stop bits, and no flow control.
- Connect the KAM to the port configured in Hyperterm.
- Turn on the KAM.
- When you see the message "Press (*) to set Baud Rate, press the "*" button.
- Then set your callsign as prompted.
- To place the unit into RTTY mode type "RTTY".
- Also make sure the unit is set up for software handshaking XFLOW = ON.
- Once you are communicating with the KAM and have it in the RTTY mode, you can also tune in a RTTY signal and it will decode and print on the Hyperterm screen.
- Now try a transmit by typing a Ctrl−C and a "T" on the keyboard followed by several characters that you wish to transmit. To get back to receive, type a Ctrl−C and a "R".
- If you have problems, consult your KAM manual.
- Now exit the Hyperterm program and start Logger.

Below some RTTY settings for the KAM TNC

| | | | | | |
|---|---|---|---|---|---|
| AUTOCR | 0 | AUTOLF | ON | AUTOSTRT | OFF |
| BKONDEL | ON | CD | SOFTWARE | CRADD | OFF |
| DIDDLE | ON | ECHO | ON | FILTER | OFF |
| FSKINV | OFF | INVERT | OFF | LFSUP | OFF |
| LOWTONES | OFF | MARK | 2125HZ | RBAUD | 45 |
| SHIFT | 170 | SPACE | 2295HZ | USOS | ON |
| XFLOW | **ON** | XMITECHO | ON | | |

### 26.1.3 SCS PTC

- Take the PTC as you use it for other digimode programs e.g. ALPHA (by DH7RG), XPWIN (By KF7XP), LOGGER (by K4CY)
- Set the PTC to **SERBAUD 19200** (not AUTO !) > switch the *PTC OFF*
- Start N1MMLogger > Config > Configure Ports, Telnet Address, Other > Digital Modes. Check ‚Digital Interface 1' and set it to **OTHER**, set the used COM−Port to *19200 Baud, N−8−1−none*. Set the ‚Digital Interface 2' to ‚NONE'
- Click at N1MMLogger on *Windows* and start the *RTTY/MMTTY Interface*.
- Be sure that the PTC is connected to the right COM−port and switch it *ON* and the start info will appear in the upper window finished by the prompt *cmd:* If you can't see anything check COM−port and settings.
- Click in the lower window, entry with the keyboard *ESC+Shift – bau 45 – ENTER* the PTC will switch to RTTY (look at the PTC mode display). Add ‚ESC−Shift – term 1 – ENTER' to switch the PTC to echo the transmitted signs in the upper window. Note : ESC without shift will switch the cursor to the main window
- The very first upper left key of the RTTY interface window MUST be include an ABORT in order to get a correct function for cancelling the AUTO−CQ function or make a break with he ESC−key on the keyboard. Click right on the upper left key, use the Digital Macro Set = OTHER 1, generate the Macro : {ESC}dd}ENTER}{ESC}bau 45{ENTER} and name it ABORT. The macro will reset the PTC−2 to PACTOR, clear the TX buffer and switch the PTC−2 back to RTTY.
- The next key may be configured to switch the PTC−2 from the default state PACTOR to RTTY. Use {ESC}dd{ENTER}{ESC}bau 45{ENTER}{ESC}term 1{ENTER} and give the name RTTY. Every time you start the PTC−2 you may click on this key to start the RTTY−mode. You need 'term 1' to get a delayed echo on the RX−window when your text is transmitted.
- Click right on an other macro key, use the same OTHER 1 set, and generate a SWITCH ON/OFF macro as {CTRL−Y} to transmit with the keyboard. Try to enter text after you have switched to transmit. You may generate macros with simple QSO−textes using the installed N1MMLogger macros as !, *, DATE, TIME etc. Use {CTRL−Y} to switch TX ON and OFF.
- See for some macro examples at macros page..

## 26.2 Download, configure and test MMTTY

### 26.2.1 Download MMTTY

- Download the current release of MMTTY from: http://www.qsl.net/mmhamsoft/
- Run the setup program and install this to your computer in its own directory.
- Copy these 3 files to your N1MM Logger directory
    - Mmtty.exe
    - Mmtty.ini
    - UserPara.ini

### 26.2.2 Configure MMTTY

Load N1MM Logger and go to the Configure/ports/radio etc. menu and select the Digital Modes tab. Select MMTTY as your interface and click OK

Then click on the RTTY/MMTTY Interface under the Window tab in the main logger window. After a few seconds you should see something like the picture below(example screen MMTTY). The only setting you will need to set in MMTTY Setup is under the TX tab in MMTTY Setup change the PTT com port to what ever Com Port you use for keying. And make sure you click OK to save your changes.

On the MMTTY interface there is a menu called profiles. These different profiles come in handy for trying to copy DX and other signals that are hard to copy with normal settings.

### 26.2.3 Testing MMTTY

MMTTY is also a stand alone application. So testing can be done outside N1MM logger.

### 26.2.4 Tips using MMTTY

*How to tune RTTY*

- Use the vfo on your radio and dial in the peaks to match the 2 yellow lines on the spectrum
- Click view and the x−y scope
- Make sure you click the "ham" button for proper shift etc
- Probably set AFC off..when you are in a crowded section of the band and manually tune the signals
- Also in crowded sections its helpful to use the built−in notch and bandpass filters
- Make sure your in LSB

*Periodically you get a lost sound indication in the MMTTY window and the program quits responding to RTTY.*

- This happens every 20 minutes or so. Try increasing the priority with which MMTTY runs from its default "high" to "highest". This is one step below the maximum "critical". this setting is in MMTTY under Options, Setup MMTTY and the MISC tab..... Mostly the transition from RX−TX−RX is much smoother.

*When should I use AFC*

- You use AFC (automatic frequency control) when you wish to have MMTTY automatically track the incoming RTTY signal.

- With AFC and NET turned on, MMTTY will track the incoming signal and also keep your transmitter frequency locked to the received signal when using AFSK.

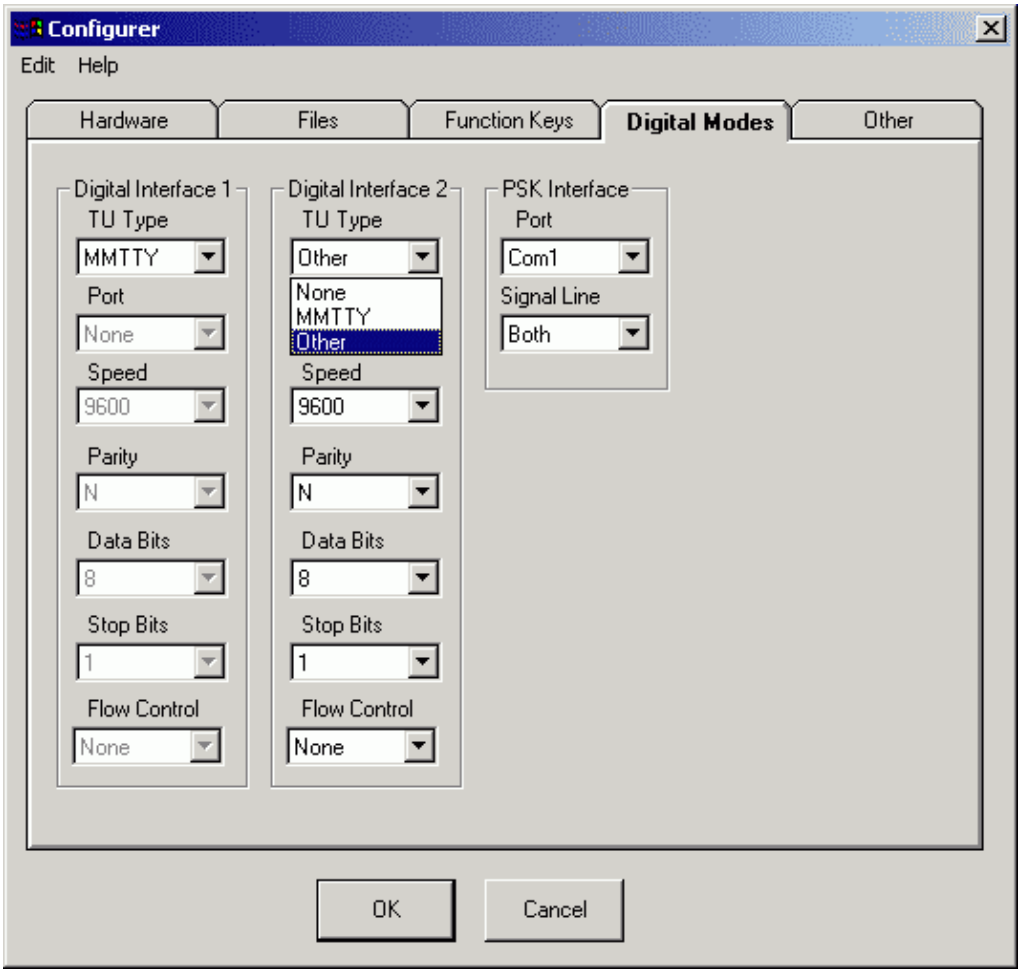
  When MMTTY is set to transmit FSK, AFC will work on receive only. When in "run" mode, your want to keep your TX frequency stable, but with RX AFC set on you can pick up stations who reply a bit off your frequency and copy the exchange without losing your TX spot. Just don't let the AFC spread get too far from where you're transmitting.

*When should I use the NET option*

- When in 'Search and Pounce' mode check the NET option, your signal will track any drift on the person you are calling and working.
- When in 'Running' mode uncheck the NET option, you don't want to 'follow' the station which is calling you over the band.

## 26.3 Configure the Logger

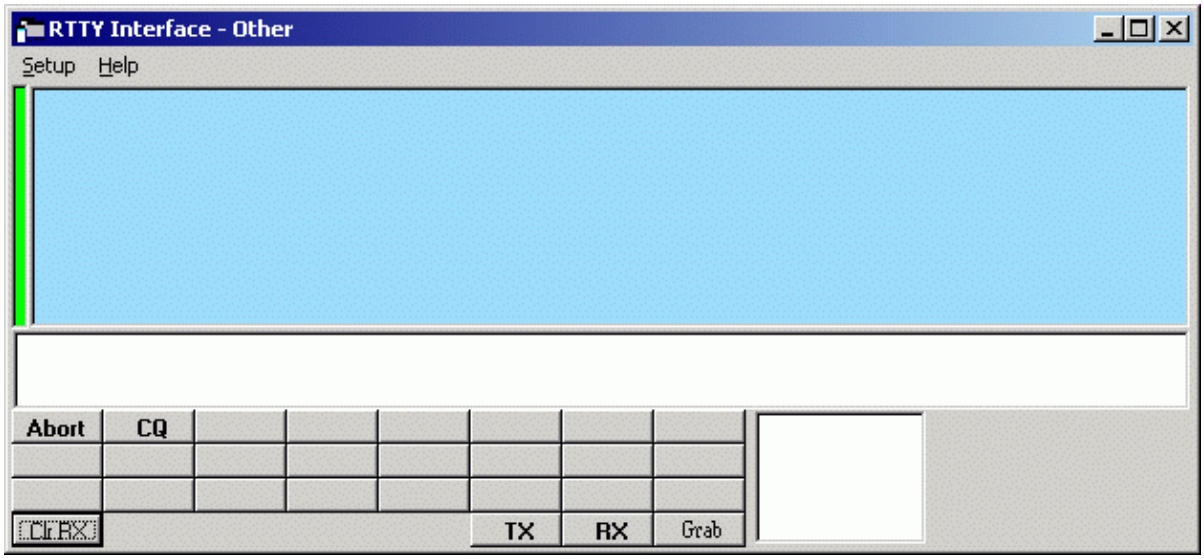
### 26.3.1 Configure the TNC/ MMTTY



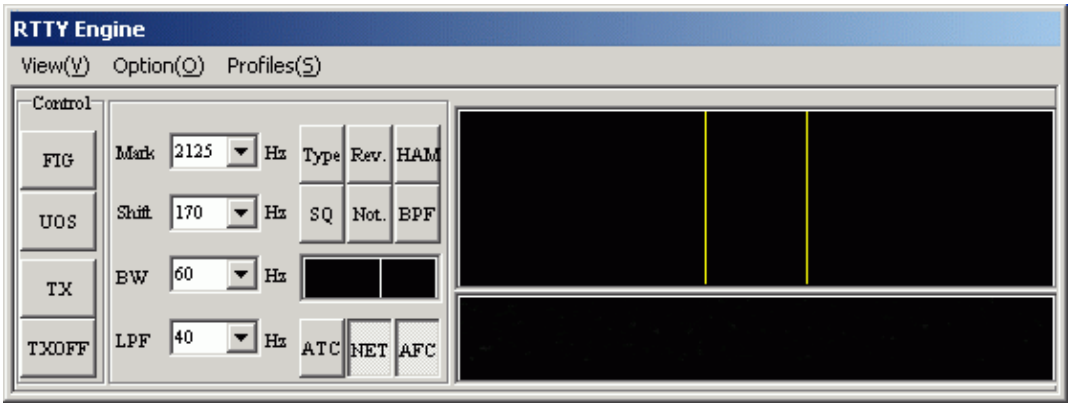

- Start the N1MM Logger application.
- On the Logger Main Window do a 'Config> Configure Ports, Telnet Address, Other'
- Select the Digital Modes tab.
  - ♦ MTTY or Other is your choices. If you select Other make sure you set all of your settings for the TNC.

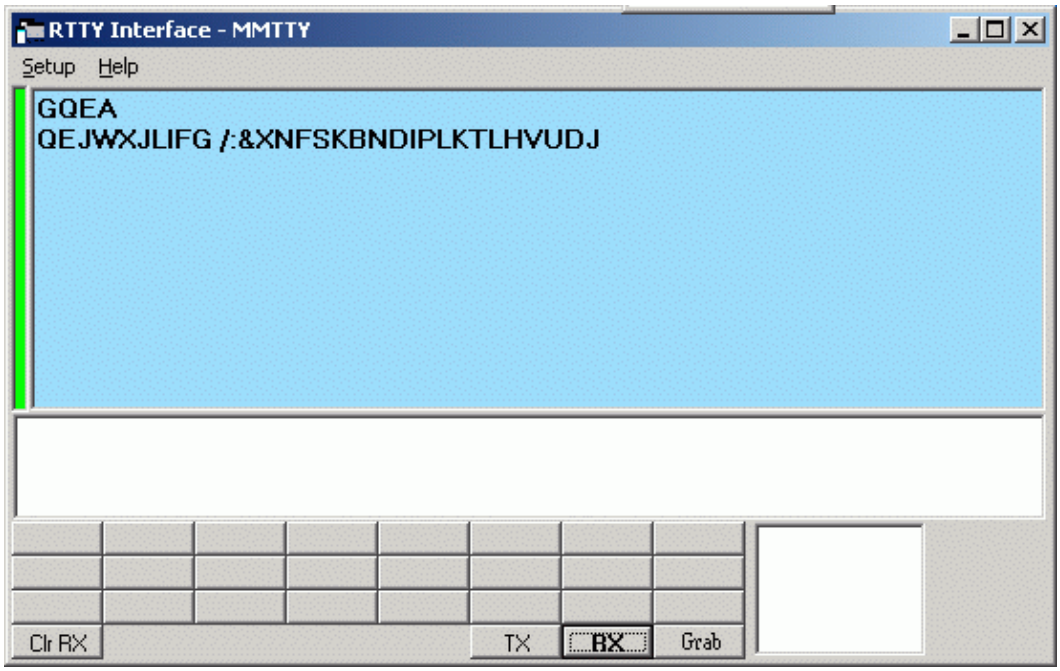
## 26.4 The Digital Interface

The digital interface can be used with an external TNC and with MMTTY.




This is what the interface looks like for TNC use.






This is the Interface using MMTTY RTTY Engine.

The interface has 3 windows :

- **Top window** − This is the receive window. This is the window used for making qso's. There are 2 ways of placing a callsign into the callsign window of the logger you can single click on a callsign and it will transfer over to the main logging window. Whenever a callsign is printed to a window followed by a space it will be sent to the callsign grab window for easy movement to the logging window by clicking the Grab button.

- **Bottom window** − This is your transmit buffer. After you click the TX button anything that you type in the box will get transmitted.
  Only for TNC users. When not transmitting, anything typed in the TX Window will be sent to the TNC. (used to change settings etc.)

- **Macro buttons** − These buttons on the Digital Interface are 24 extra Macros for pre−programmed messages. Configuring these macros is done in the Digital Interface window under 'Setup, Settings' or by right clicking on them which brings up the Digital setup screen.
- **Clr RX** − Clear the Receive window
- **Callsign Textbox and Grab** − When a callsign is encountered in one of the receive windows (followed by a space) it will be placed in this textbox and when you press the Grab button it will transfer the callsign over to the main logger window. The grab callsign window holds the last 5 callsigns seen in the RX window. The most current one is at the top and is highlighted. Dupes are shown in the grab window.
- **TX** − Start the RTTY transmission, the transceiver is keyed. This button is only shown when MMTTY is selected.
- **RX** − Stop the RTTY transmission, the transceiver changes back to receive. This button is only shown when MMTTY is selected.

Both interface look the same but the way they use the macro buttons are different. I will try to explain the differences here. First I will talk about the TNC Window.

It is possible to have 2 RTTY Interface windows open at the same time. Open your first interface then click again on on the RTTY/MMTTY Interface menu selection to open up the second window. I use this feature to copy with both my TNC and MMTTY to pick up on callsigns I might miss etc. Or if you have 2 radios and 2 separate TNC's you can switch between the 2 of them.

One thing I must point out is the macros for the second Interface window you open up will not be the same as they are for the first window you open.

It is possible to resize the receive and tx window. Grab the seperator bar and move up and down with the mouse.

### 26.4.1 The TNC interface

The TNC Interface will accept all of the Macro keywords that can be used in the Packet window and other places in the Logger and will also accept the following:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| {CTRL−A} | {CTRL−B} | {CTRL−C} | {CTRL−D} | {CTRL−E} | {CTRL−F} | {CTRL−G} | {CTRL−H} |
| {CTRL−I} | {CTRL−J} | {CTRL−K} | {CTRL−L} | {CTRL−M} | {CTRL−N} | {CTRL−O} | {CTRL−P} |
| {CTRL−Q} | {CTRL−R} | {CTRL−S} | {CTRL−T} | {CTRL−U} | {CTRL−V} | {CTRL−W} | {CTRL−X} |
| {CTRL−Y} | {CTRL−Z} | {ESC} | {ENTER} | | | | |

Macro keywords can be used in any of the macro buttons or the Logger function keys..

The TX window will accept all control key commands except for the Esc key, this must be sent as a Shift−Esc combination.

There is one special macro key on the TNC interface. **The very first macro button must be setup to send the abort transmission command.** As you see in the above picture I have this marked as Abort and have it colored RED. If at any time you press the ESC key while transmitting it will send this macro to the TNC to stop transmission immediately.

You must remember that when you set up a macro key that is not a TNC command you will need to include the sequence to key your TNC before it sends. If you click on the macro with out the TNC transmitting, your TNC will think it is a command being sent to it and not know how to process it.

TNC users still need to enter in what ever CTRL characters are needed to turn on and off your TNC....

To use the free form typing in the TX window you need to create a macro that will key your TNC and another to Turn it off. Click the macro that starts transmitting and then click in the TX window. Whatever you type will be sent out… then click the macro to turn things off after you are done.

## 26.5 Steps to set up your TNC

1. In Digital Setup
    - ♦ a. Choose Other for Interface
    - ♦ b. Set other parameters accordingly (Example settings: Com 4,9600,8,N,1 RST−Xon)
    - ♦ c. Save the configuration
2. Load the RTTY Interface from the window menu.

3. Create your Abort macro (This should be in the upper left corner) by right clicking on it. This will open up the RTTY setup area. click on the same macro and enter what ever key sequence you need to abort transmission and save the macro.
   Example PK232: {CTRL−C}R{ENTER}  and save the macro.
4. You should be ready to copy RTTY make sure your interface is set to copy 45 baud and 170 shift. You can configure a macro key to change this or you can type the key sequence needed in the transmit window and it will get sent to the TNC.

That should be it. You will need to add the CTRL keys that turn on and off the TNC
Example CQ macro for the PK232:  X{ENTER} CQ CQ CQ TEST DE {MYCALL} {MYCALL} K {CTRL−D}

### 26.5.1 The MMTTY interface

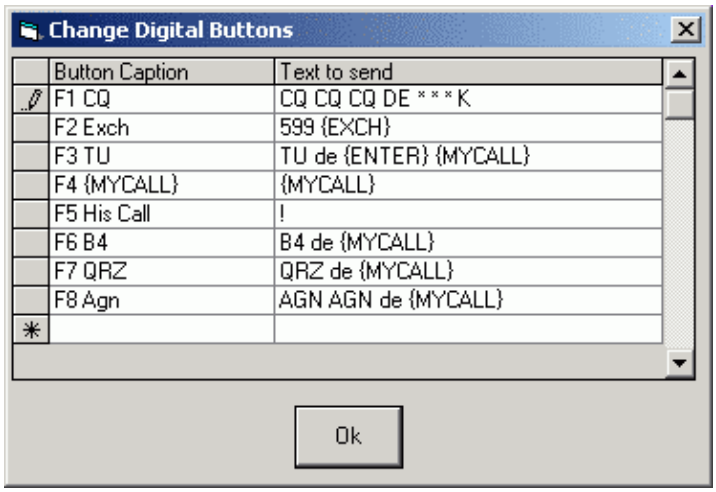
The macros for the Interface using MMTTY are different from the way they work with the TNC . What ever you put in the macro will get transmitted. There is a keyword needed to turn TX ON or OFF when the macro gets sent it will stop transmitting.

There is no special abort macro needed for use with MMTTY just using the ESC key will stop transmitting.

The TX and RX buttons are for the free form typing in the TX window

## 26.6 Configuring the Entry window function keys

- On the Logger Main Window do a Config>
  Edit the Digital Buttons with the proposed texts:




| Button Caption | Text to send |
|---|---|
| &CQ | CQ CQ CQ DE * * * K |
| &Exchange | 5NN # |
| &My Call | * |
| &His Call | ! |
| &TU | TU DE * |

| | |
|---|---|
| RY | ryryryryry |
| QSO | Tnx om fer Call... |

## 26.7 Macro keys on the RTTY interface

There are 24 extra macro keys on the RTTY interface.
A right click on the macro buttons brings up the Digital setup screen where the macros can be configured.

These extra 24 function keys support all the macros but don't support 'Running' mode and 'Search & Pounce' mode.

Include in your macros the control keys needed to turn on the TNC and switch to RX...

Macro key substitution is supported by the buttons in the PSK window and the function keys on the Entry window.
The macros which can be used and some examples can be found on the macros page.

See above for specific macro information in the TNC interface and MMTTY interface sections.

## 26.8 Keyboard Assignments

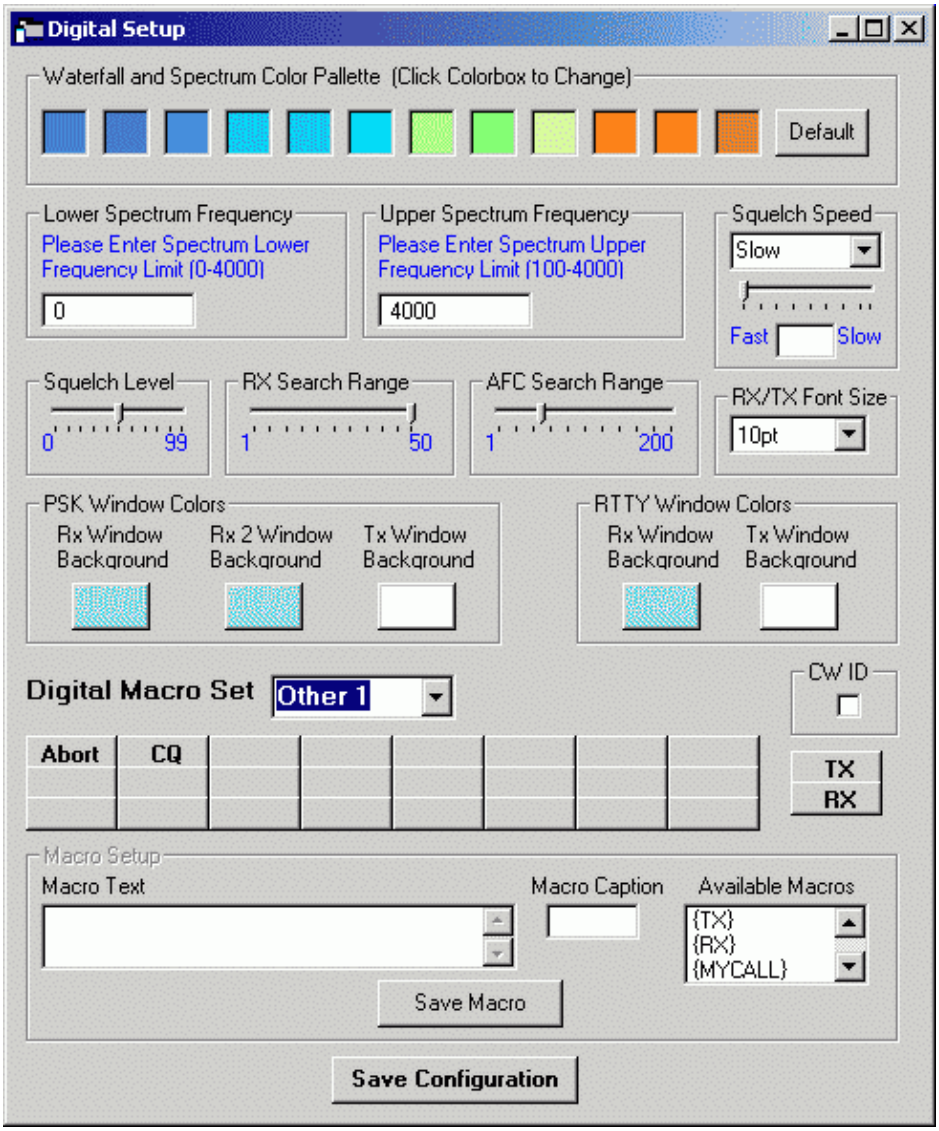
- **Alt−T** − Toggle TX/RX, the cursor will be set to the TX window of the active interface.
- **Alt−G** − Grab callsign.

## 26.9 Mouse Assignments

- **Left mouse key clicking**
  - **Single clicking** on a callsign grabs it and places it in the Callsign field on the Entry Window dialog.
  - **Double clicking** on Exchange info etc. grabs it and places it in the Exchange field on the Entry Window dialog.
    - NB. The callsign field must be filled first!
- **Right mouse key clicking**
  - **In Running mode**
    - in the receive (top) window will transmit the text from the Exchange function key (mostly Function Key number 2)
    - in the transmit (lower) window gives a menu:
      - **Clear RX** − Clear the Receive window
      - **Clear TX** − Clear the transmit window
  - **In Search & Pounce mode**
    - gives a menu:
      - **Clear RX** − Clear the Receive window
      - **Clear TX** − Clear the transmit window

## 26.10 Setup Menu Selections

- **Settings** − When selecting this menu item you get a screen like the one below.




Along the top of this form is the Waterfall/Spectrum Color palette. The 12 colors that make up the color palette can be changed to represent whatever colors you would like. The colors go from the weakest signal on the top to the strongest signal on the bottom. The waterfall window from the MMTTY engine is in black and white and can't be given a color using this color palette.

- **Lower Spectrum Frequency** – This allows you to change the amount of visible frequency displayed on the waterfall or spectrum. The frequency starts at 0 Hz.
- **Upper Spectrum Frequency** – This allows you to change the amount of visible frequency displayed on the waterfall or spectrum. The frequency starts at 100 Hz.
- **Squelch Speed** – This is how quick your squelch filters
- **Squelch Level** – This level represents the noise level as to where you would like the interface to start copying signals at. 0 indicates an open squelch and everything will be decoded.
- **RX Search Range** – This is how far in Hz the interface will look to lock onto a signal when you click on a signal in the waterfall or spectrum.
- **AFC Search Range** – This is how far in Hz the interface will track a drifting signal.
- **RX/TX Font Size** – This is the font size for the receive windows and the transmit window. You can select from 8pt, 10pt, or 12pt.

- **PSK Window Colors** − The PSK receive windows and the transmit window background colors can be changed here.
- **RTTY Window Colors** − The RTTY windows (RX, TX) background colors can be changed here.
- **CW ID** – If this check box is checked the interface will send DE xxxxxxx where xxxxxxx is the callsign listed in Station Setup of the logger after every transmission.
- **Digital Macro Set** − Update the macros definitions and button texts.
  - Select an interface from the dropdown menu. Choices are: PSK, MMTTY 1, Other 1, MMTTY 2, Other 2
  - Click on the macro button which has to be updated
  - Type the macro text in the field 'Macro Text'
  - Type the text on the button in the field 'Macro Caption'
  - Click on the 'Save Macro' button when satisfied
  - The selected macro caption text will be shown on the button
  - Available macros are shown in the box 'Available Macros'. First select a macro button to see them all.
- Below the CW ID check box are two extra Macro buttons which have to be configured as TX/RX buttons. Enter what control codes are needed to turn on and off your TNC. (Only when Other 1 or Other 2 is chosen)

- **Command prompt on / Command prompt off** − What this does is stop showing the Cmd: prompt in the RX window. *This menu is only visible when a Other is selected.*
- **Load TNC Settings File** − Ability to load the TNC settings file named "SETTINGS.TXT" to the TNC. Included a file which can be used for the PK−232 (by Rick, N2AMG). Anyone else for the KAM and the PTC? *This menu item is only visible when Other is selected.*
- **Help** − Start the Help function.

Any changes made in the setup form must be saved by clicking the Save Configuration Button located on the bottom of the form. Any changes made and saved will be changed as soon as the setup area closes.

## 26.11 Make a RTTY transmission

We need to make room for a new RTTY screen so for now minimize the Logger Telnet/Packet window.

Now select "Window | Digital Interface" and you will see the Digital interface screen below. The Digital Interface screen can be positioned and resized on your monitor as desired.

When MMTTY is chosen two extra windows will appear: the MMTTY Engine window and the Digital Interface window. If an external TNC is used only the Digital Interface window as shown above is opened.
Right clicking on the RX and TX window will pop a menu to clear the RX and TX window.

## 26.12 Other Features

- Before every transmission a separator/CR (Carriage Return) is sent to the terminal so it is easy to recognize where your transmission has started.
- Pressing control while single clicking on a call will force the call into entry window.
- In enter mode, don't simulate space bar, just set focus to Entry Window

To get auto−CQ to work correctly with a TNC set you repeat time to at least 9 or 10 seconds. It may need to be longer if you have a longer CQ macro. This will stop the TNC buffer from receiving the next string before it finishes sending the last one.

It is best to add the command that your TNC uses to clear the transmit buffer to the end of your Abort Macro. If not, the transmit buffer still holds the remaining characters that were left in the sent string and will get sent the next time the TNC sends.

When using a TNC turn off *Stop Sending CQ when Callsign changed* this is located in the configuration area under function keys. If not everytime you stop an auto−cq and you type a callsign in the box it will send the abort string to the TNC.

## 26.13 Known problems

### 26.13.1 McAfee VShield 4.5.0.xxx and MMTTY

It seems that loading / unloading MMTTY from within N1MM logger when using McAfee VirusScan 4.5.0(.xxx) (sometimes) gives problems. The loading of MMTTY is very slow and the Digital Interface (RTTY) function keys are not working. Loading or unloading MMTTY from within N1MM logger is fine when McAfee Vshield is *stopped* (disabling VShield is not enough!). *To resolve this problem upgrade to version **4.5.1** from McAfee VirusScan*.

Workaround version 4.5.0.xxx

- Stopping Vshield
  - ♦ Open VirusScan Console (Magnifying glass icon in System Tray)
  - ♦ Select VShield (it probably is already selected)
  - ♦ Select the STOP button in the row above, Vshield will now remove itself from memory.
- MMTTY can be started (Window | RTTY/MMTTY Interface)
- Starting Vshield
  - ♦ Open VirusScan Console (Magnifying glass icon in System Tray)
  - ♦ Select VShield (it probably is already selected)
  - ♦ Select the START button in the row above, Vshield will be started.

When unloading MMTTY from within N1MM logger the procedure should be used again.

# 27 General PSK information

## 27.1 General info

*On the radio make sure:*

- Audio processing is off
  - ♦ Speech processing is off
  - ♦ Hi boost is off (Kenwood radios)
- Radio should be in USB mode
  LSB is also possible but normally USB is used.
- Don't overrun your finals from the transceiver and/or amplifier
  - ♦ 50 percent duty cycle is mostly ok
  - ♦ See the Interfacing section of this help for urls and tips on interfacing.
- Using lower case letters instead of all caps, will increase speed and reduce TX time.
- Only 100 Hz is needed as channel separation.

## 27.2 Common Digital Frequencies

| Band | Digital Frequencies (kHz) |
|---|---|
| 160 meter | |
| 80 meter | 3575 − 3585 / 3620 − 3640 |
| 40 meter | 7060 − 7080 |
| 30 meter | 10130 − 10145 |
| 20 meter | 14065 − 14090 |
| 17 meter | 18100 − 18110 |
| 15 meter | 21060 − 21090 |
| 12 meter | 24920 − 24930 |
| 10 meter | 28110 − 28125 |

## 27.3 Common PSK Frequencies

PSK31 activity starts from the bottom edge of the IARU RTTY bandplan, expanding upwards as activity increases.

| PSK Frequency (kHz) | Remarks |
|---|---|
| 1838.15 | |
| 3580.15 | |
| 7035.15 | 7080.15 in Region 2. |
| 10142.15 | WARC, no contesting |
| 14070.15 | |
| 18100.15 | WARC, no contesting |
| 21080.15 | |
| 24920.15 | WARC, no contesting |
| 28120.15 | |

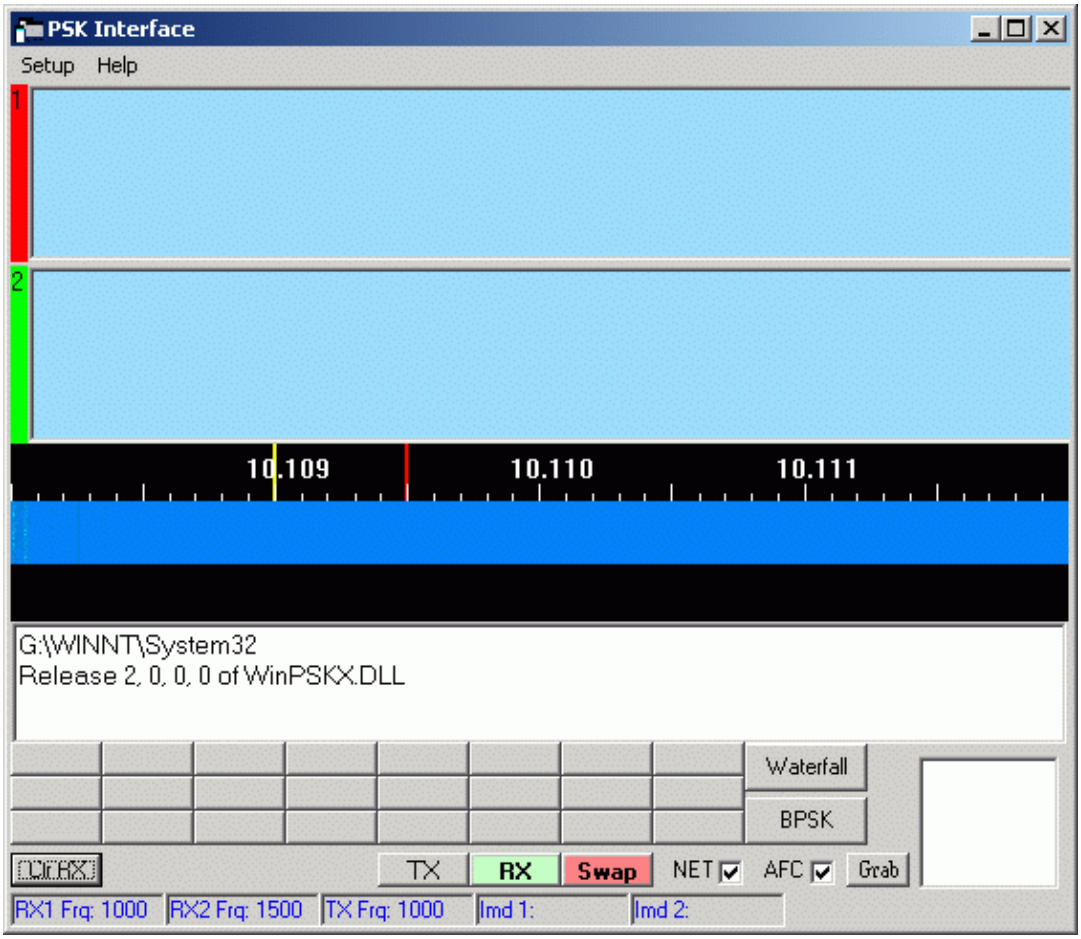
## 27.4 Popular PSK contests

| Date | Contest | Remarks |
|---|---|---|
| Third Saturday of April | TARA PSK31 Contest − Spring Wakeup | Home page |
| | Any more annual contests? | |

# 28 PSK configuration/support

## 28.1 The PSK Interface

The PSK interface is based on the PSK−DLL of Dave Cook WA0TTN.
The DLL file "WinPSKX.dll" needs to be located in the N1MM logger program directory or the system32 directory in your Windows or WinNT directory. Use the DLL which comes with the program update. The directory where regsvr32.exe is expected to be and the version of the PSK−DLL are shown in the transmit window when the PSK interface is started.




This is the PSK Interface Window. It is broken into 5 separate areas which I will cover in order from the top.

- **Receive Windows 1 and 2** − Both these windows operate in the same manner and both windows are able to grab callsigns and place them into the grab window that will be discussed later.
  There is a colored pane on the left side of each receive window that serves 2 purposes
  1. Identifies which window is currently the transmit window by coloring it Red.
  2. By clicking on the colored pane you can pause input to the receive window to scroll back through the text using the scroll bars. When the window is paused the color of the pane will turn Yellow. To turn input to the window back on click in the pane again and everything that was to be printed to the window will now enter the window.

  There are 2 ways of placing a callsign into the callsign window of the logger you can single

click on a callsign and it will transfer over to the main logging window.(This sometimes does not work). Whenever a callsign is printed to a window followed by a space it will be sent to the callsign grab window for easy movement to the logging window by clicking the Grab button.

You can select any exchange info by double clicking on the sent info. This will transfer over to the logger item by item after the callsign is filled in.

Selecting another frequency for this window is done by *left* clicking in the Waterfall or Spectrum window. This is the window used for making qso's. If you select a callsign using your mouse it will be put into the callsign box on the Logger.

The two receive windows are resizable by middle splitter.

- **PSK DLL Window** − This window is used to interact with the PSK DLL and is called the Waterfall or Spectrum window. Across the top it shows the frequency of your radio. As you tune your radio this will update and the numbers will change. There are colored cursors which represent the 2 receive windows. The yellow cursor is for the 1st receive window and the red cursor is for the 2nd receive window. To change frequency for the 1st receive window you place your mouse pointer over a signal trace and click with your *left* mouse button. To change frequency for the 2nd receive window you place your mouse pointer over a trace and click with your *right* mouse button.

- **Transmit window** − This is a free form typing window. If you click on the TX button the cursor will be placed into this window and what ever is typed will be sent to your transmitter. The size is static and doesn't change size.

- **Control Panel** − The buttons on the control panel do the following:
  - **Macro buttons** − These buttons on the Digital Interface are 24 extra Macros for pre−programmed messages. Configuring these macros is done in the Digital Interface window under 'Setup, Settings' or by right clicking on them which brings up the Digital setup screen.
  - **Waterfall** − This button when clicked will switch the display mode to Waterfall.
  - **BPSK** − This button when clicked will switch the display mode to BPSK.
  - **Clr RX** − This is a fast way to clear BOTH receive windows. If you want to clear individual windows right click over the window and a menu will pop up. The only time this menu will not appear is if you are in RUN MODE. Then when you right click on either of the 2 receive windows the F2 macro will be sent. You can still access the clear menu by right clicking in the TX window.
  - **Callsign Textbox and Grab** − When a callsign is encountered in one of the receive windows (followed by a space) it will be placed in this textbox and when you press the Grab button it will transfer the callsign over to the main logger window. The grab callsign window holds the last 5 callsigns seen in the RX window. The most current one is at the top and is highlighted. A right click in this box brings up a menu to clear list or selected callsign.
  - **TX** − Places the interface into transmit, the transceiver is keyed, and places the cursor into the TX window for input. See the Radio Interfacing section for Parallel and Serial port info.
  - **RX** − This places the interface back into receive mode after all the characters in the transmit buffer have been sent. To abort transmit immediately you may press the ESC key.
  - **Swap** − This swaps the transmit control between the 2 RX windows. The indicator on the left of the window will turn RED if the window has transmit control and Green

when not. This is good in contesting as while working one station. You can dial the second station in via the second RX window and after you finish the first contact just hit swap button and then call the other station.

- **Net Checkbox** − This turns on and off the ability of the transmit frequency to follow the receive frequency in what ever window the transmit control is located.
- **AFC Checkbox** − This is used to turn on and off Automatic Frequency Control. It means if the signal you are copying is drifting and AFC is turned off the interface will not follow the signal.

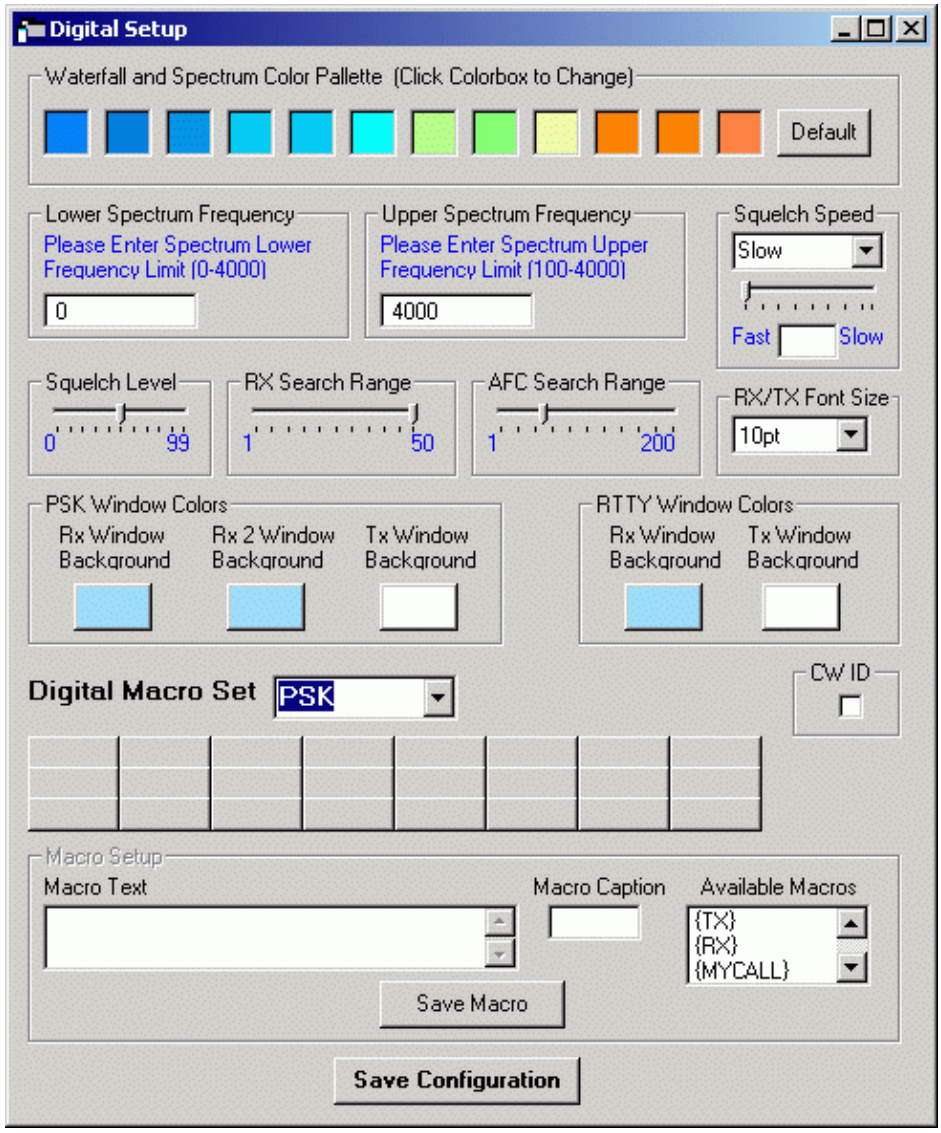
The remaining textboxes represent the receive frequency of both receive windows and also the transmit frequency. The IMD settings for each channel are listed and will change whenever idle signal (only signal no text) is received.

- **RX1 Frq** − This is the receive frequency for the first receive window.
- **RX2 Frq** − This is the receive frequency for the second receive window.
- **TX Frq** − This is the transmit frequency.
- **IMD 1** − Signal quality measurements for the first receive window.
- **IMD 2** − Signal quality measurements for the second receive window.

IMD 1 and IMD 2 are signal quality measurements. The only time an IMD event fires in any PSK terminal is when there is a transmitted signal but no characters are sent. Its like if you pause between words or something then the imd will fire. It will always show a negitive number and the higher the signal the narrower the received signal is. An IMD of say −16 is a real wide signal where a −26 is not taking up much band width and is a very good signal.

## 28.2 Setup Menu Selections

- **Setup** − When selecting this menu item you get a screen like the one below.




Along the top of this form is the Waterfall/Spectrum Color palette. The 12 colors that make up the color palette can be changed to represent whatever colors you would like. The colors go from the weakest signal on the top to the strongest signal on the bottom.

- **Lower Spectrum Frequency** – This allows you to change the amount of visible frequency displayed on the waterfall or spectrum. The frequency starts at 0 Hz.
- **Upper Spectrum Frequency** – This allows you to change the amount of visible frequency displayed on the waterfall or spectrum. The frequency starts at 100 Hz.
- **Squelch Speed** – This is how quick your squelch filters
- **Squelch Level** – This level represents the noise level as to where you would like the interface to start copying signals at. 0 indicates an open squelch and everything will be decoded.
- **RX Search Range** – This is how far in Hz the interface will look to lock onto a signal when you click on a signal in the waterfall or spectrum.
- **AFC Search Range** – This is how far in Hz the interface will track a drifting signal.

- **RX/TX Font Size** – This is the font size for the receive windows and the transmit window. You can select from 8pt, 10pt, or 12pt.
- **PSK Window Colors** − The PSK receive windows and the transmit window background colors can be changed here.
- **RTTY Window Colors** − The RTTY windows (RX, TX) background colors can be changed here.
- **CW ID** – If this check box is checked the interface will send DE xxxxxxx where xxxxxxx is the callsign listed in Station Setup of the logger after every transmission.
- **Digital Macro Set** − Update the macros definitions and button texts.
    - Select an interface from the dropdown menu. Choices are: PSK, MMTTY 1, Other 1, MMTTY 2, Other 2
    - Click on the macro button which has to be updated
    - Type the macro text in the field 'Macro Text'
    - Type the text on the button in the field 'Macro Caption'
    - Click on the 'Save Macro' button when satisfied
    - The selected macro caption text will be shown on the button
    - Available macros are shown in the box 'Available Macros'. First select a macro button to see them all.

Any changes made in the setup form must be saved by clicking the Save Configuration Button located on the bottom of the form. Any changes made and saved will be changed as soon as the setup area closes.

- **Help** − Starts the Help function.

## 28.3 Keyboard Assignments

- **Alt−T** − Toggle TX/RX, the cursor will be set to the TX window of the active interface.
- **Alt−G** − Grab callsign.

## 28.4 Mouse Assignments

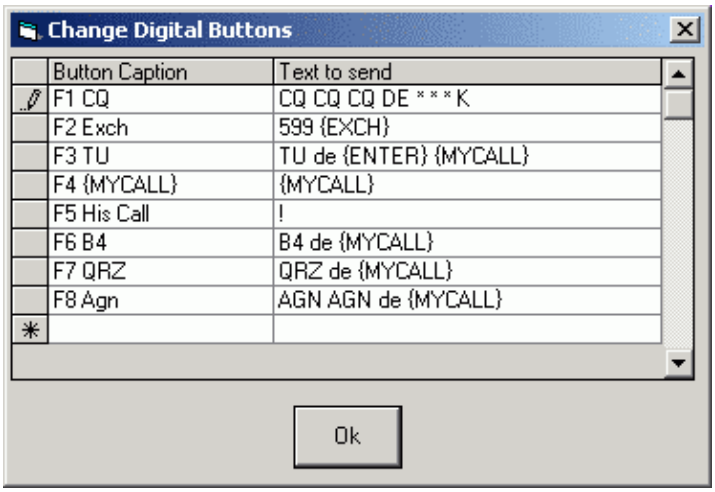
- **Left mouse key clicking**
    - **Single click** on a callsign grabs it and places it in the Callsign field on the Entry Window dialog.
    - **Double clicking** on exchange info etc. grabs it and places it in the Exchange field on the Entry Window dialog.
        - NB. The callsign field must be filled first!
- **Right mouse key clicking**
    - **In Running mode**
        - Right clicking in the RX or TX window will transmit the text from the Exchange function key (mostly function key number 2)
    - **In Search & Pounce mode**
        - **Clear RX** − Clear the Receive window
        - **Clear TX** − Clear the transmit window

## 28.5 Configuring the Entry window function keys

- The Entry window supports 2 times 8 function keys, a total of 16 function keys.
- These function keys which support 'Running' mode and 'Search & Pounce' mode.
- These function keys use the same macros for PSK and RTTY.
- The function keys can be changed under:
    - Config menu

- ♦ Change Packet/CW/SSB/Digital Message Buttons
- ♦ Change Digital Buttons.

Below a proposal how to define the buttons:




| Button Caption | Text to send |
|---|---|
| &CQ | CQ CQ CQ DE * * * K |
| &Exchange | 5NN # |
| &My Call | * |
| &His Call | ! |
| &TU | TU DE * |
| RY | ryryryryry |
| QSO | Tnx OM fer Call... |

## 28.6 Macro keys on the PSK interface

There are 24 extra macro keys on the PSK interface.
A right click on the macro buttons brings up the Digital setup screen where the macros can be configured.

These extra 24 function keys support all the macros but don't support 'Running' mode and 'Search & Pounce' mode.

Include in your macros the control keys needed to turn on the TNC and switch to RX...

Macro key substitution is supported by the buttons in the PSK window and the function keys on the Entry window.
The macros which can be used and some examples can be found on the macros page.

## 28.7 Other

- The Radio Frequency display on the Waterfall and Spectrum display follows the active Radio Frequency

- if you get object errors starting the program, or starting PSK.
- At least version 2.0 of the WinPSK.dll is needed, the program does check this and shows the current version in the transmit window.
- Getting (PSK) object errors during program start or starting PSK?
  You will likely have to run c:\windows\system\regsvr32 /u winpskx.dll, followed by c:\windows\system\regsvr32 winpsk.dll to register the WinPSK.dll. Run upgrade.bat which is located in the program install directory and these commands will be executed.

# 29 Supported Radios

Go look here for Radio Computer interfacing

Note. Not all the features listed in this Help/manual might be applicable to all the transceivers and brands mentioned below.
Known settings for transceivers or features not applicable are mentioned below as far as we know them.
Please inform us if you have information which should/could be mentioned here.

## 29.1 Kenwood

- All models are supported
  - Newer models connect directly via a serial port cable
  - Older models need the Kenwood IF−10 or the IF−232C interface
- Software handshaking is being used.
- Kenwood uses by default:
  - Speed: 4800 Baud
  - Parity: N
  - Databits: 8
  - Stopbits: 2 (!)
- **TS−570** −
  - When using the ACC2 port on the back, you must send both the audio signal and the PTT signal to the ACC jack.
  - You can't use the normal PTT connection from the MIC jack if you are inputting audio into the ACC jack.
- **TS−2000**
  - Uses default 9600 Baud and 1 stopbit
  - Also working for frequencies above 100 MHz

## 29.2 Yaesu

- Newer models connect directly via a serial port cable. Older models
- The models below are supported
  - FT−100
  - FT−847
  - FT−890
  - FT−920
  - FT−990
  - FT1000
  - FT1000MP
- Required interfaces
  - Newer models connect directly via a serial port cable
  - Older models need the Yaesu FIF−232C CAT interface
- Software handshaking is being used for all models.
- Yaesu uses by default:
  - Speed: 4800 Baud
  - Parity: N
  - Databits: 8
  - Stopbits: 2 (!)
- **FT−847**

- Split Operation does not work, because it is not supported via the CAT−connection. So it has to be done manually by the operaotr.
- RIT and XIT in the bandmaps are not working, because this is not supported by the FT−847.
- Also working for frequencies above 100 MHz

- **FT1000MP**
  - Please see also Key Assignments (Ctrl−F9 and Ctrl−F12)
  - The program can't send CW via the MP's serial cable. See the help for how to build a cw interface.

## 29.3 Icom

- Newer models connect directly via a serial port cable. Older models require an ICOM CT−17 interface.
- Software handshaking is being used.
- Icom uses by default:
  - Speed: 1200 Baud
  - Parity: N
  - Databits: 8
  - Stopbits: 1
  - Address: see manual
- **IC−746** − VFO−B is a virtual VFO as long it isn't activated. The scale is not controlled by the VFO−B of the transceiver. It becomes an active VFO when it is activated. The IC−746 is switched to VFO−B and set to the frequency shown in the VFO−B−bandmap.
- **IC−746/756/756PRO/756PRO II etc** − To make N1MM logger show the right frequency in the bandmaps
  - Go into the setup menu in the radio
  - *CI−V Transceive* has to be set to *OFF*
  - *CI−V with 731* has to be set to *OFF*
  - The above wording is the IC−756 and may differ for the other rigs, but should be similar.
- **IC−751** − To make N1MM logger work with the radio interface Show correct frequency, modes etc.)
  - Remove the hood of the radio
  - Switch S1−3 has to be set to 'off' for computer control. This switch is default set to 'on'.

## 29.4 Other brands

- **Elecraft K2** with serial interface uses Kenwood alike commands so use the Kenwood setting. Only the KY command which is Elecraft specific is not supported.
- No other brands are supported yet

# 30 Interfacing

## 30.1 General

The program can interface with your radio using several ports from the computer. These ports are:

- Serial port − With a serial port it is possible to send CW, key PTT *or* communicate with your radio. Most computers have 2 Serial communication ports with 9 or 25 pins.
- Parallel port − With the parallel port it is possible to send CW or key PTT. There is additional info available on the parallel port. With this additional info you can switch antennas with the right interface connected. Also there is a pin that indicates which radio is currently active.
- Sound card − The sound card is used to send sound (Wav) files to your radio for instance for giving CQ and when using RTTY with MMTTY. You can also use the sound card to record all the qso's you are making.

For **CW** the parallel ports are assumed to have the address shown in the list below:

| Port | Address |
|---|---|
| LPT1 | &H378 |
| LPT2 | &H278 |
| LPT3 | &H3BC |

For **CW** the serial ports are assumed to have the address shown in the list below:

| Port | Address |
|---|---|
| COM1 | &H3F8 |
| COM2 | &H2F8 |
| COM3 | &H3E8 |
| COM4 | &H2E8 |

These addresses can be checked in (Win98) Control Panel/System/Device Manager/Ports (COM & LPT)/(Choose a port)/Resources/Input Output Range.

**Non−standard port addresses will not work for cw.**



Tip. If you have one standard and one non−standard com port, assign the non−standard to the radio, and the standard port to cw.

## 30.2 Radio interfacing

Interfacing to a radio is done directly with a serial cable or when using an older radio an additional interface is needed. Every brand has it's own solution for it, also they have there own commands when changing frequency, changing band etc.
When a direct serial cable is needed be sure it has all the necessary pins wired. A cable with full wiring is always ok.

When using an additional interface there are two choices again. You buy the original for your radio or you build one yourself. When you buy an original interface the manual will say what kind of cable you need for it. When you make an interface yourself or buy a not original interface it can be that you are in trouble. The program determines if you have to use a cable with only three wires (software handshaking) or five wires (hardware handshaking).

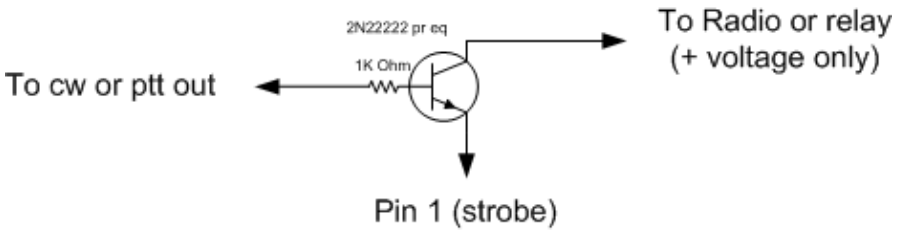
So it is possible that your interface is only suited for software handshaking and our program uses hardware handshaking. That won't work! So it is possible that a (3 wire) cable you have always used with your radio won't work with this program because N1MM logger uses hardware handshaking (and needs more wires) and the other program uses software handshaking (only three wires). If possible the program will use hardware handshaking because it is more reliable than software handshaking. The kind of handshaking the program uses can be found on the page with 'Supported Radios'.

| Software handshaking | DB−9 | DB−25 | Hardware handshaking |
|---|---|---|---|
| Ground | pin 5 | pin 7 | Ground |
| RXD | pin 2 | pin 3 | RXD |
| TXD | pin 3 | pin 2 | TXD |
| Not used | pin 7 | pin 4 | RTS |
| Not used | pin 8 | pin 5 | CTS |

## 30.3 CW key and PTT interfacing

### 30.3.1 Via Parallel port

Below a picture of a possible interface



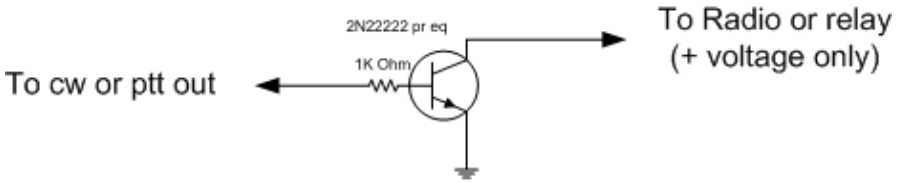

Parallel port cw or ptt interface.
Be careful, pin 1 can only sink a limited current.

**Parallel (LPT) port**

- Pin 16 − PTT output
- Pin 17 − CW output
- Pin 1 − Ground

N.B. Pin 1 is the return for all other pins. This pin has limited sink capability, so you may need a buffering transistor.

Via Serial Port




Serial port cw or ptt interface

**Serial port (9 pin)**

- Pin 7 − PTT output (RTS)
- Pin 4 − CW output (DTR)
- Pin 5 − Ground

**Serial port (25 pin)**

- Pin 4 − PTT output (RTS)
- Pin 20 − CW output (DTR)
- Pin 7 − Ground

Note. When using CW or PTT outputs on a serial port it must be on a different serial port than any radio or packet modem.

Note. The CW− and(!) the PTT−lines are coming from the same serial/parallel port. Example: When COM4 e.g. is the CW−Port the PTT−line has to be connected at the same

jack

- Equivalents for the *2N2222* are *2N3904*, *BC547* or *BC548*.

## 30.4 Additional Parallel Port Interfacing

If the type of CW port chosen is LPT1, LPT2 or LPT3, additional information will be present on the chosen parallel port.

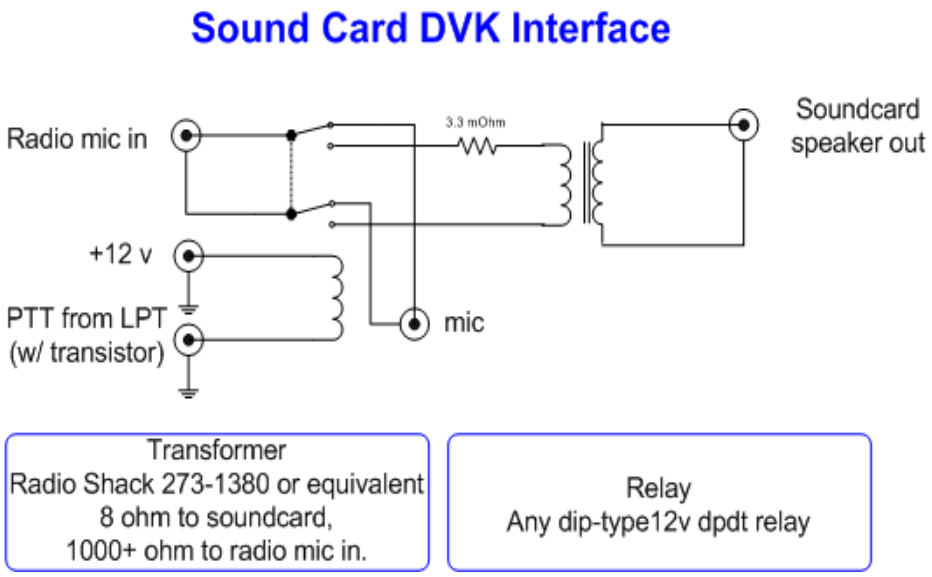
***Note: The cw port choice determines the port for all parallel/serial port radio interface capabilities (cw, ptt, band, selected radio, etc.).***

The pin descriptions are as follows:

1 − Return for all other pins. This pin has limited sink capability, so you may need to buffer it
2 − Least significant bit for band output
7 − band output
8 − band output
9 − Most significant bit for band output
160=1, 80=2, 40=3, 30=4, 20=5, 17=6, 15=7, 12=8, 10=9 (hex − e.g. 10m = pin 2 & 9 high). This is the coding scheme used by Top Ten.
14 − Radio 1/2. High = Radio 1/VFO 1, Low = Radio2/VFO 2
16 − PTT output, high = transmit mode
17 − CW output

Pins 2, 7, 8, 9 are being used for band information using the TopTen standard...

## 30.5 Sound card interfacing




Sound card DVK

- A 8:1000 ohms transformer should be used when the sound card speaker output is used to the radio microphone input.

- A 600:600 ohms (1:1) transformer should be used when the line output from the sound card is used to the radio microphone input.

## 30.6 Serial and Parallel port interfacing under Windows NT/2000/XP (32 bit OS)

Windows NT, Windows 2000, XP and their descendants require a special dll called: DLPORTIO.DLL to use the parallel and the serial ports.
*Windows 95, 98 (SE), ME don't need this special dll. In these 16 bit operating systems N1MM logger can access the parallel port direct without the need for an extra driver.*
To install the NT/2000/XP capable dll, do the following:

- Download DLPORTIO.ZIP. A link to this zip file containing dlportio.dll can be found in the installation section.
- In the "Completed Projects" section, under C++ Builder Components is a link. Take that link and look for TDLPortIO.
- You can also search the web for a file called DLPORTIO.ZIP with a size of about 851k.
- To install, follow the instructions in section 3.2 of the file DLPORTIO.PDF. It is called: *Automatically Installing the DriverLINX driver.* The actual code installed and operating is tiny compared to the size of the zip file.
- You will need to install this dll as the administrator of your machine.

## 30.7 Some interfacing links

- http://www.packetradio.com/rascal.html
- http://www.sedan.org/tnc2rad.htm
- http://www.qsl.net/wm2u/interface.html
- http://users.skynet.be/ON4AOI/keyer.shtml

# 31 Two Monitor Support

by K1JN

## 31.1 Requirements

- Requires Win 98 or better
- Additional videocard
- Additional monitor

## 31.2 Two Monitor Setup

### 31.2.1 Install hardware

- Shut down Windows
- Open the case
- Install a second video card
- Attach a monitor.
    - ♦ Any card/monitor will do, they don't have to be same as the one already installed, I used a Windows 95 era ATI Rage video card and an old Gateway 2000 CrystalScan monitor.
- Close the case

### 31.2.2 Software

- Start the PCReboot
- Windows should find the new card and monitor and install the software.
    - ♦ You will get a message on the 2nd monitor that says if you can read this, you can extend your desktop onto this monitor.
- You do that by right clicking on the desktop and click on properties. Click on the settings tab. There will be icons for two monitors. Click on the one numbered 2 and check the box that says extend my Windows desktop onto this monitor.
- Drag the monitor icons to set which is left and which is right.
    - ♦ The second monitor is actually an extension of your desktop, it will have the same wallpaper and color scheme. If you move the mouse cursor off the right edge of the left monitor, it shows up on the right monitor. The screensaver runs on the main monitor, but not the 2nd one here.

As far as the windows sticking, it varies by program. Luckily, in the case of N1MM Logger, they stick!

# 32 Supported Contests

## 32.1 General contest logging

| *Contest* | *Jump to* | *Remarks* |
|---|---|---|
| General log (DX) | Setup | with two exchange fields |
| Generic QSO Party | Setup | with serialnumber and extra exchange field |

## 32.2 Supported CW/SSB contests are:

All contests are supported 'both' sides unless specifically mentioned.

| *Contest* | *Jump to* | *Website* | *Remarks* |
|---|---|---|---|
| All Asian DX contest CW | Setup | Website | Third Saturday of June (48 hours) |
| All Asian DX contest SSB | Setup | Website | First Saturday of September (48 hours) |
| ARRL 10 Meter contest | Setup | Website | |
| ARRL Field Day contest | Setup | Website | |
| ARRL International DX contest CW | Setup | Website | |
| ARRL International DX contest Phone | Setup | Website | |
| ARRL November Sweep Stakes CW | Setup | Website | |
| ARRL November Sweep Stakes SSB | Setup | Website | |
| CQ World−Wide 160 Meter DX Contest − CW | Setup | Website | |
| CQ World−Wide 160 Meter DX Contest − Phone | Setup | Website | |
| CQ World Wide DX contest − CW | Setup | Website | Last full weekend of November (48 hours) |
| CQ World Wide DX contest − SSB | Setup | Website | Last full weekend of October (48 hours) |
| CQ World Wide WPX contest − CW | Setup | Website | |
| CQ World Wide WPX contest − Phone | Setup | Website | |
| IARU Radiosporting contest | Setup | | |
| North American QSO Parties (NAQP) − CW | Setup | Website | |
| North American QSO Parties (NAQP) − SSB | Setup | Website | |

| | | | |
|---|---|---|---|
| PACC contest | Setup | Website | |
| RSGB Jubilee | Setup | | |
| SP DX contest | Setup | Website | Last weekend of April (15:00−15:00 GMT)) |

## 32.3 Supported RTTY/PSK contests are:

All contests are supported 'both' sides unless specifically mentioned.

| *Contest* | *Jump to* | *Website* | *Remarks* |
|---|---|---|---|
| ARRL RTTY Roundup | Setup | Website | |
| BARTG RTTY Sprint contest | Setup | Website | |
| CQ World Wide DX contest − RTTY | Setup | Website | Last full weekend of September (48 hours) |
| CQ World Wide WPX contest − RTTY | Setup | Website | |
| TARA PSK Rumble | Setup | Website | |

# 33 Contest Setup Instructions

## 33.1 General

When a contest has a specific mode (*SSB*, *CW* or *RTTY*) then the *Sent Exchange* is automatically changed to that mode. So when you select CQWWSSB for the CQ World Wide SSB contest the *Sent Exchange* will be set by the program to SSB. You can change this but that will give wrong Cabrillo output and maybe even erroneous behavior of the program, so don't!! If the selected contest doesn't have a specific mode the program will set the *Sent Exchange* to *Mixed*.
Also the radio will be set on all bands to the mode set. The frequency though is not being changed to the CW/SSB/RTTY section of the band.

This is a contest program but for general logging you can use **DX** as the selected contest if you want. Dupes are allowed and an exchange is not necessary.
To import a contest in your regular logging program use ADIF export (and ADIF import in your general logging program).

When going through the possible contests you will see a "contest" DELETEDQS.
This is not a contest but deleted qso's will be put in here by the program, this is especially for multi−user support.



*Note:* ***Always read the contest instruction from the contest committee prior to the contest.***
*Then you know how to set up the program, what exchange to give and what to expect in return, which hours to operate etc.*

## 33.2 General contest logging

### 33.2.1 General log

Window: Select Log type

- Log Type: *DX*
- Mode Category: *Mixed* If you want to have the possibility making SSB and CW contacts.

For general or DX logging.

- Entered qso's in General log (or DX log) doesn't need to have an exchange.
- Dupes are shown by the word Dupe! but the qso can be logged without a problem

## 33.3 Contest Setup Instructions for CW/SSB contests

### 33.3.1 All Asian CW

The All Asian contest can be used by Asian stations and DX stations.

- Window: Select Log type
  - Log Type: *ALLASIACW*

- Sent Exchange:
  - *Your age* Example: 34
    - *XYL and YL stations may give 00*

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are an Asian station or a non−Asian station.*

### 33.3.2 All Asian SSB

The All Asian contest can be used by Asian stations and DX stations.

- Window: Select Log type
  - Log Type: *ALLASIASSB*
  - Sent Exchange:
    - *Your age* Example: 34
      - *XYL and YL stations may give 00*

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are an Asian station or a non−Asian station.*

### 33.3.3 ARRL 10 Meter contest

The ARRL 10M contest can be used by K/VE stations and DX stations.

- Window: Select Log type
  - Log Type: *ARRL10M*
  - Sent Exchange:
    - *Your state/province* − for K/VE stations Example: NY
    - *001* − for DX stations (non K/VE)

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a DX station or a W, KH6, KL7, VE station.*

### 33.3.4 ARRL Field Day contest

The ARRL Field Day contest can only be used by K/VE stations

- Window: Select Log type
  - Log Type: *FD*
  - Sent Exchange:
    - *Your Class  Your section*

### 33.3.5 ARRL International DX contest − CW

- Window: Select Log type
  - Log Type: *ARRLDXCW*
  - Mode Category: *CW*
  - Sent Exchange: *Your state/province* − for K/VE stations Example: NY
  - Sent Exchange: *Power* − for DX stations (non K/VE) Example: 200

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a DX stations or a W/VE station.*

The default power for DX stations is

- 100 Watts − Default

- ♦ 200 Watts − For the following countries: UA, UA2, UA9, UK, UN, UR, R1FJ, R1MV
- ♦ 300 Watts − For the following countries: I, IS, IT9
- ♦ 400 Watts − For the following countries: G, GM, GI, GD, GM, GM/s, GW

Give 'Space' when the cursor is in the 'Power' field to have it filled with the default power. The default power will be selected, so that if you type another power level, it will replace the default power that the program put in there.

### 33.3.6 ARRL International DX contest − SSB

- Window: Select Log type
  - ♦ Log Type: *ARRLDXSSB*
  - ♦ Mode Category: *SSB*
  - ♦ Sent Exchange: *Your state/province* − for K/VE stations Example: NY
  - ♦ Sent Exchange: *Power* − for DX stations (non K/VE) Example: 200

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a DX stations or a W/VE station.*

The default power for DX stations is

- ♦ 100 Watts − Default
- ♦ 200 Watts − For the following countries: UA, UA2, UA9, UK, UN, UR, R1FJ, R1MV
- ♦ 300 Watts − For the following countries: I, IS, IT9
- ♦ 400 Watts − For the following countries: G, GM, GI, GD, GM, GM/s, GW

Give 'Space' when the cursor is in the 'Power' field to have it filled with the default power. The default power will be selected, so that if you type another power level, it will replace the default power that the program put in there.

### 33.3.7 ARRL November Sweep Stakes − CW

- Window: Select Log type
  - ♦ Log Type: *SSCW*
  - ♦ Mode Category: *CW*
  - ♦ Sent Exchange: *Precedence Year first licensed ARRL/RAC section* Example: B 70 EMA

Spaces are required in the exchange except between the nr prec. You may put the exchange elements in out of order and repeat them. The last one will be used.

### 33.3.8 ARRL November Sweep Stakes − Phone

- Window: Select Log type
  - ♦ Log Type: *SSSSB*
  - ♦ Mode Category: *SSB*
  - ♦ Sent Exchange: *Precedence Year first licensed ARRL/RAC section* Example: B 70 EMA

Spaces are required in the exchange except between the nr prec. You may put the exchange elements in out of order and repeat them. The last one will be used.

### 33.3.9 CQ 160 Meter DX contest − CW

- Window: Select Log type
  - ♦ Log Type: *CQ160CW*
  - ♦ Mode Category: *CW*

- Sent Exchange:
  - ◊ *Your state/province* − for K/VE stations Example: NY
  - ◊ *Your country abbreviation* − for DX stations (non K/VE)

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a DX stations or a W/VE station.*

## 33.3.10 CQ 160 Meter DX contest − SSB

- Window: Select Log type
  - Log Type: *CQ160SSB*
  - Mode Category: *SSB*
  - Sent Exchange:
    - ◊ *Your state/province* − for K/VE stations Example: NY
    - ◊ *Your country abbreviation* − for DX stations (non K/VE)

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a DX stations or a W/VE station.*

## 33.3.11 CQ World Wide DX contest − CW

- Window: Select Log type
  - Log Type: *CQWWCW*
  - Mode Category: *CW*
  - Sent Exchange: *Your zone* Example: 14

The default zone values for US (K,N,W,A) stations are

- Zone 3 − If number in callsign is 6 or 7
- Zone 4 − If number in callsign is 5 or 8 or 9 or 0
- Zone 5 − If number in callsign is 1 or 2 or 3 or 4

The default zone values for Canadian (VE) stations are

- Zone 1 − If callsign starts with: VY1
- Zone 2 − If callsign starts with: VE2, VO2
- Zone 3 − If callsign starts with: VE7, VC7
- Zone 4 − If callsign starts with: VE3, VE4, VE5, VE6, VA3
- Zone 5 − If callsign starts with: VO1, VE1, XJ1, VY2

Other

- Give 'Space' when the cursor is in the 'Callsign' field to have the 'Zone' field filled with the default value.
- The default zone will be selected, so that if you type another zone, it will replace the numbers that the program put in there.
- For US users, Ctrl−up/dn doesn't stop at US stations.
- US spots are not grayed out for Canadian users
- Don't show and count own countries as workable in the Bandmaps and the Available window

## 33.3.12 CQ World Wide DX contest − SSB

- Window: Select Log type
  - Log Type: *CQWWSSB*
  - Mode Category: *SSB*
  - Sent Exchange: *Your zone* Example: 14

The default zone values for US (K,N,W,A) stations are

- Zone 3 − If number in callsign is 6 or 7
- Zone 4 − If number in callsign is 5 or 8 or 9 or 0
- Zone 5 − If number in callsign is 1 or 2 or 3 or 4

The default zone values for Canadian (VE) stations are

- Zone 1 − If callsign starts with: VY1
- Zone 2 − If callsign starts with: VE2, VO2
- Zone 3 − If callsign starts with: VE7, VC7
- Zone 4 − If callsign starts with: VE3, VE4, VE5, VE6, VA3
- Zone 5 − If callsign starts with: VO1, VE1, XJ1, VY2

Other

- Give 'Space' when the cursor is in the 'Callsign' field to have the 'Zone' field filled with the default value.
- The default zone will be selected, so that if you type another zone, it will replace the numbers that the program put in there.
- For US users, Ctrl−up/dn doesn't stop at US stations.
- US spots are not grayed out for Canadian users
- Don't show and count own countries as workable in the Bandmaps and the Available window

### 33.3.13 CQ World Wide WPX contest − CW

- Window: Select Log type
  - Log Type: *CQWPXCW*
  - Mode Category: *CW*
  - Sent Exchange: *Serialnumber*  Example: 001

Leading zeros are being forced on sent received serial numbers.

### 33.3.14 CQ World Wide WPX contest − SSB

- Window: Select Log type
  - Log Type: *CQWWSSB*
  - Mode Category: *SSB*
  - Sent Exchange: *Serialnumber*  Example: 001

Leading zeros are being forced on sent received serial numbers.

### 33.3.15 IARU radiosporting contest

- Window: Select Log type
  - Log Type: *IARU*

### 33.3.16 North American QSO Parties (NAQP) − CW

- Window: Select Log type
  - Log Type: *NAQPCW*
  - Mode Category: *CW* − automatically by the program
  - Sent Exchange:
    - *For North American stations* − Operator name and station location (state, province, or country)  Example: Tom CT

◊ *For non−North American stations* − Operator name only  Example: Thomas

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a North American station or a non−North American station.*

## 33.3.17 North American QSO Parties (NAQP) − SSB

- Window: Select Log type
  - ♦ Log Type: *NAQPSSB*
  - ♦ Mode Category: *SSB* − automatically by the program
  - ♦ Sent Exchange:
    - ◊ *For North American stations* − Operator name and station location (state, province, or country)  Example: Tom CT
    - ◊ *For non−North American stations* − Operator name only  Example: Thomas

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a North American station or a non−North American station.*

## 33.3.18 PACC contest

The PACC contest can be configured for PA stations and DX stations.

- Window: Select Log type
  - ♦ Log Type: *PACC*
  - ♦ Sent Exchange:
    - ◊ *001* for non−PA stations
    - ◊ *Your province*  Example: DR for PA−stations

*PA stations have to import an adapted CTY.DAT file for the PACC contest so the right multipliers will be used. Rename PACC−CTY.DAT to CTY.DAT and place it in the program file directory. In the 'Entry window' go to 'Tools', and select 'Reload CTY.DAT'. Don't forget to backup the original CTY.DAT file and reloading the original CTY.DAT file again when entering other contests.*

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a DX station or a PA station.*

The PACC contest committee likes to receive

| ***File*** | ***How to make...*** | ***Exported*** |
|---|---|---|
| Log file | File, Export, Export to File (Generic) | [callsign].txt |
| Summerysheet | View, Score Summary, Print Summary Sheet to File | [callsign].sum |

## 33.3.19 RSGB jubilee contest

The RSGB jubilee contest can be configured for PA stations and DX stations.

- Window: Select Log type
  - ♦ Log Type: *RSGBJUBILE*
  - ♦ Sent Exchange:
    - ◊ *001*

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are in the Commonwealth or not.*

### 33.3.20 SPDX contest

The SPDXcontest can be configured for PA stations and DX stations.

- Window: Select Log type
  - ♦ Log Type: *SPDX*
  - ♦ Sent Exchange:
    - ◊ *001* for non−SP stations
    - ◊ *Your province*  Example: B for Lubuskie
  - ♦

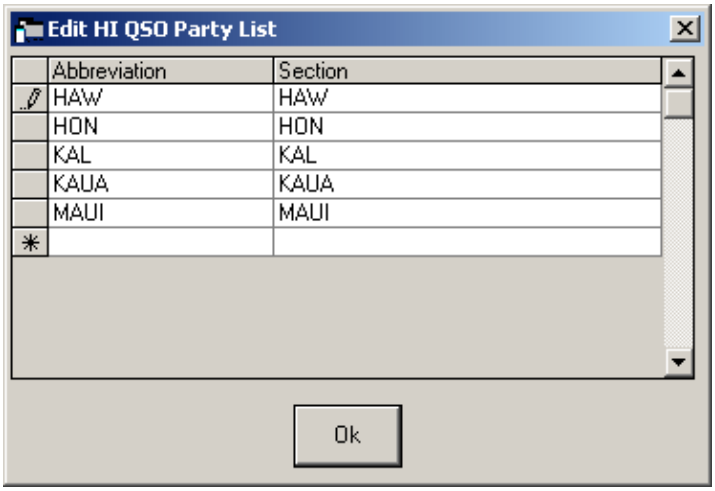
## 33.4 QSO parties

The program supports 23 US and Canadian QSO parties. There are some scoring anomalies though.

- Window: Select Log type
  - ♦ Log Type: *QSOPARTY*
  - ♦ A selectionbox where to choose the state / province appears (see picture below).
    - ◊ Select a State or Province (example image shows Hawaii HI)
    - ◊ Mode Category: *MIXED*
  - ♦ Sent Exchange:
    - ◊ The exchange depends on the QSO party. Mostly serial number and location
    - ◊ *Inside the selected State/Province* − See contest instructions
    - ◊ *Outside the selected State/Province* − See contest instructions

  The State/Province entered in the State filed in the Station Dialog will be used to determine if you are in or outside a state or province.



# 33.5 Contest Setup Instructions for RTTY/PSK31 contests

## 33.5.1 ARRL RTTY Roundup

The ARRL RTTY Roundup can be used by K/VE stations and DX stations.

- Window: Select Log type
  - ♦ Log Type: *ARRLRTTY*
  - ♦ Sent Exchange:
    - ◊ *Your state/province* − for K/VE stations Example: NY
    - ◊ *001* − for DX stations (non K/VE)

*The callsign in your Station Information dialog (Config / Change Your Station Data / Call) determines if you are a DX stations or a W/VE station.*

NB. US stations who work US "/MM" stations are also allowed to log serial numbers.

## 33.5.2 BARTG RTTY Sprint contest

- Window: Select Log type
  - ♦ Log Type: *BARTGRTTYS*
  - ♦ Sent Exchange:*001*

*An adapted CTY.DAT file has to be imported so also the call areas of JA, VK, K and VE are used as multipliers. Rename the file on Yahoo for the BARTG contest in the Files section to CTY.DAT and place it in the program file directory. In the 'Entry window' go to 'Tools', and select 'Reload CTY.DAT'. Don't forget to backup the original CTY.DAT file and reloading the original CTY.DAT file again when entering other contests.*

## 33.5.3 CQ World Wide DX contest − RTTY

- Window: Select Log type
  - ♦ Log Type: *CQWWRTTY*
  - ♦ Mode Category: *RTTY*
  - ♦ Sent Exchange:
    - ◊ *For North American/Canadian stations − Your zone plus the STATE or AREA* Example: 14 NY
    - ◊ *For other stations − Your zone* Example: 14

The default zone values for US (K,N,W,A) stations are

- ♦ Zone 3 − If number in callsign is 6 or 7
- ♦ Zone 4 − If number in callsign is 5 or 8 or 9 or 0
- ♦ Zone 5 − If number in callsign is 1 or 2 or 3 or 4

The default zone values for Canadian (VE) stations are

- ♦ Zone 1 − If callsign starts with: VY1
- ♦ Zone 2 − If callsign starts with: VE2, VO2
- ♦ Zone 3 − If callsign starts with: VE7, VC7
- ♦ Zone 4 − If callsign starts with: VE3, VE4, VE5, VE6, VA3
- ♦ Zone 5 − If callsign starts with: VO1, VE1, XJ1, VY2

The default section values for Canadian (VE) stations are

- ♦ VE − If callsign starts with: VE1, VE2, VE3, VE4, VE5, VE6, VE7, VE8, VO1, VO2,VY

Give 'Space' when the cursor is in the 'Callsign' field to have the 'Zone' field filled with the default value.
The default zone will be selected, so that if you type another zone, it will replace the numbers that the program put in there.
Abbreviations for Canadian regions are allowed.

### 33.5.4 CQ World Wide WPX contest − RTTY

- Window: Select Log type
    - ♦ Log Type: *CQWWRTTY*
    - ♦ Mode Category: *RTTY*
    - ♦ Sent Exchange: *Serialnumber*  Example: 001

Leading zeros are being forced on sent received serial numbers.

### 33.5.5 TARA PSK Rumble

- Window: Select Log type
    - ♦ Log Type: *CQWWRTTY*
    - ♦ Mode Category: *MIXED*
    - ♦ Sent Exchange: *Name* and *Location*  Example: Tom CT

## 33.6 Deleted QSO's

### 33.6.1 DELETEDQS "contest"

Qso's which you have deleted using 'Edit Contact' are placed in this 'contest'.
This is in especially for multi−user support.

# 34 Macros

## 34.1 General

Macros are key words in a text to send which are being replaced when send. An example is the ! which will be replaced by the station entered in the calsign field. The macros can be used on several places in the program.

- Function key buttons (Entry window)
- Packet buttons (Packet window)
- RTTY programmable buttons (RTTY window)
- PSK programmable buttons (PSK window)

Not all macros can be used on all the places mentioned above.
Note that when the length of the string after substitutions exceeds 1024 characters, the program will stop substituting characters. This is to prevent infinite loops.

### 34.1.1 *General macros*

General macros can be used on all the places mentioned above.

| ***Macro keyword*** | ***Substituted by*** |
|---|---|
| ***** | My Call from Stationinfo dialog, same as {MYCALL}. |
| **!** | Sends the callsign entered in the callsign field. |
| **{BEEP}** | Make a clicking sound from the pc speaker |
| **{CALL}** | Call in callsign textbox or, if none, the last call logged.<br><br>Note: This will send the call as it was when the message STARTED.<br>If you want to be able to type the call and send the changes use ! (exclamation point).<br>It does not ever send the previous call, however. |
| **{CLUSTER}** | Cluster callsign from Stationinfo dialog.<br>See examples. |
| **{EXCH}** | Sent last QSO number. |
| **{GRID}** | Gridsquare from Stationinfo dialog. |
| **{LASTCALL}** | Call of last station logged |
| **{MYCALL}** | My Call from Stationinfo dialog, same as * |
| **{NAME}** | Sends the name as entered in the Entry window name field (Example: TARA) |
| **{PREVNR}** | Sends the QSO # of the last logged QSO. |
| **{LRMHZ}** | Frequency Left Radio/VFO−A in MHz. Example: 28 when on 28.1234 MHz |

| | |
|---|---|
| **{RRMHZ}** | Frequency Right Radio/VFO−B in MHz. Example: 14 when on 14.1235 MHz |
| **{CTRL−A}** | Sends Ctrl−A character to TNC. ++ |
| **{CTRL−B}** | Sends Ctrl−B character to TNC. ++ |
| **{CTRL−C}** | Sends Ctrl−C character to TNC. ++<br>See examples. |
| **{CTRL−D} ...<br>{CTRL−Y}** | Sends Ctrl−D until Ctrl−Y character to TNC. ++ |
| **{CTRL−Z}** | Sends Ctrl−Z character to TNC. ++ |
| **{ENTER}** | Sends ENTER to TNC. |
| **{ENTERLF}** | Sends Return/Line Feed to the TNC.<br>Try this if ENTER doesn't seem to work. |
| **{ESC}** | Sends Escape character to TNC. ++<br>See examples. |
| **{DATE}** | Short date in Windows format as set in Regional settings. |
| **{DATE1}** | Date in Nordlink−TF/WA8DED format (dd.mm.yy)− format: 26.02.99 |
| **{SENTRST}** | Sends the RST sent as entered in Entry window Snt field |
| **{TIME}** | Time in Windows format as set in Regional settings. |
| **{TIME1}** | Time in Nordlink−TF/WA8DED format (hh:mm:ss)− format: 20:36:55 |
| **{TIME2}** | Short GMT time (hhmm)− format: 2036 |
| **{DAYTIME}** | Date in TAPR DayTime format − format: 0107162036 |
| **{DATEGMT}** | Date and GMT time − format: 16−jul−01 18:36:55 |
| **{TIMEGMT}** | GMT time − format: 18:36:55 |
| **{F1}** | Sends text assigned to function key F1 |
| **{F2}** | Sends text assigned to function key F2 |
| **{F3}** | Sends text assigned to function key F3 |
| **{F4}** | Sends text assigned to function key F4 |
| **{F5}** | Sends text assigned to function key F5 |
| **{F6}** | Sends text assigned to function key F6 |
| **{F7}** | Sends text assigned to function key F7 |
| **{F8}** | Sends text assigned to function key F8 |
| **{F9}** | Sends text assigned to function key F9 |
| **{F10}** | Sends text assigned to function key F10 |

| | |
|---|---|
| **{F11}** | Sends text assigned to function key F11 |
| **{F12}** | Sends text assigned to function key F12 |

++ = These macros can not be used in MMTTY and PSK.
The TNC Interface does accept all of the macros above.

### 34.1.2 *CW macros*

CW macros are only substituted when used in substitutions for cw buttons.

| *Macro keyword* | *Substituted by* |
|---|---|
| **<** | Increment CW speed with 2 wpm<br>See examples. |
| **>** | Decrement CW speed with 2 wpm<br>See examples. |
| **~** | Send half space character<br>See examples. |
| # | Send next (or last) serial number |
| **[** | SK |
| @ | AR |
| **]** | AS |
| **+** | AA |
| **–** | BT |

### 34.1.3 *SSB macros*

SSB macros are only substituted when used in substitutions for ssb buttons.

| *Macro keyword* | *Substituted by* |
|---|---|
| **{OPERATOR}** | Specify wav files like: wav\{OPERATOR}\cq.wav<br>Default to station callsign if not specified.<br>See examples. |

### 34.1.4 *Multi operator macros*

Multi Operator macros are only substituted when in MultiOp mode.

| *Macro keyword* | *Substituted by* |
|---|---|
| **{PASS 0}** | Pass frequency from station 0 (Master station) |
| **{PASS 1}** | Pass frequency from station 1 |
| **.....** | Pass frequency from stations 2 ... 14 |
| **{PASS 15}** | Pass frequency from station 15 |

### 34.1.5 *RTTY and PSK macros*

The following substitutions will be made when sending function key text.
In the Digital interface the macros below can be used but also all other macros shown under general macros.

| ***Macros*** | ***Substituted by*** |
|---|---|
| **{TX}** | Starts transmission in the digital interfaces |
| **{RX}** | Switches to receive in the digital interfaces |
| **{LOG}** | Logs the current contact<br>Same as ENTER in the Entry Window<br>Put the {LOG} macro after the {RX} macro... |

Some Remarks:

- Using the {TX} and {RX} macros will allow macros to be strung together as the radio will not unkey until it sees the {RX} or the RX button is pushed.
- Also ESC will switch the rig to RX.



It is best to add the command that your TNC uses to clear the transmit buffer to the end of your Abort Macro. If not, the transmit buffer still holds the remaining characters that were left in the sent string and will get sent the next time the TNC sends.

## 34.2 Macro examples

### 34.2.1 *CW macro examples*

- **Sent the call entered in the callsign field**
  - ♦ Macro: !
    - ◊ Sent his call. The callsign entered in the callsign entry field will be send by the program via the serial of parallel port.

- **Sent CQ with your call sent as a macro substitution**
  - ♦ Macro: cq~test~de~*
    - ◊ The time between the words is half a second
    - ◊ * will be replaced with the callsign from the Station dialog

- **Sent part of exchange faster (report sent 6 wpm faster)**
  - ♦ Macro: <<<5nn>>>{EXCH}
    - ◊ The report 5nn is send 6 wpm faster than the exchange

### 34.2.2 *SSB macro examples*

- **Sent the call entered in the callsign field**
  - ♦ Macro: !
    - ◊ Sent his call. The callsign entered in the callsign entry field will be send by the soundcard. In the 'Letters' directory all the wav files for the letters/numbers etc. must be present. Examples can be found in the 'Files' section of Yahoo.

- **Let each operator have his own wav files**
  - ♦ Macro: wav\{OPERATOR}\cq.wav
    - ◊ You can specify wav files like: wav\{OPERATOR}\cq.wav As you change operators in a multi op contest, the wav files will change as well. You will have to name them consistently. Note that wav directory syntax indicates a subdir under install directory. You can also fully qualify, like: "C:\wavfiles\cq.wav".
    - ◊ If you **really** wanted to, you could have: \wav\{OPERATOR}CQ.wav and name them:
      N1MMCQ.wav
      PA3CEFCQ.wav
    - ◊ {OPERATOR} is a string substitution only implemented for ssb buttons.

### 34.2.3 *RTTY and PSK macro examples*

- **Example macros for the PK−232 (Digital interface window)**

| ***Button text*** | ***Macro*** |
|---|---|
| Abort | {CTRL−C}R{ENTER}TC{ENTER} |
| Tx | X{ENTER} |
| Rx | {CTRL−D} |
| Band Up | RB U{ENTER} |
| RxReverse | RXREV T{ENTER} |

- **Example function key macros for the PK−232 (Entry window function keys)**

| ***Mode*** | ***Button text*** | ***Macro*** |
|---|---|---|
| Running | F1 CQ | X{ENTER}CQ CQ CQ TEST DE {MYCALL} {MYCALL} K CQ{CTRL−D} |
| Running | F2 Exch. | X{ENTER} ! UR 599 {EXCH} 599 {EXCH} BK{CTRL−D} |
| Running | F3 Tnx/Qrz | X{ENTER} ! TU GL DE {MYCALL} QRZ{CTRL−D} |
| S&P | F1 {MYCALL} | X{ENTER}! DE {MYCALL} {MYCALL}{CTRL−D} |
| S&P | F2 Exch. | X{ENTER}! UR 599 {EXCH} 599 {EXCH} GL DE {MYCALL}{CTRL−D} |

- **Example macros for the SCS PTC (Digital interface window)**

| ***Button text*** | ***Macro*** |
|---|---|
| Abort | {ESC}CLR{ENTER}{CTRL−D}{ENTER} |
| TX/RX | {CTRL−Y} |
| RX−Reverse | {ESC}TR 1{ENTER} |

| | |
|---|---|
| RX−Norm | {ESC}TR 0{ENTER} |
| 45 Baud | {ESC}BAU 45{ENTER} |
| 75 Baud | {ESC}BAU 75{ENTER} |
| Command mode | {ESC}Q{ENTER} |

| ***Button text*** | ***Macro*** |
|---|---|
| RTTY | {ESC}Q{ENTER}BAU{ENTER} |
| PSK31 | {ESC}Q{ENTER}PSKT{ENTER} |
| CW | {ESC}Q{ENTER}CWT{ENTER} |
| AMTOR | {ESC}Q{ENTER}AMTOR{ENTER} |
| PACTOR | {ESC}Q{ENTER}PT{ENTER} |
| PACKET | {ESC}Q{ENTER}PACKET{ENTER} |

- **Example function key macros for the SCS PTC (Entry window function keys)**

| ***Mode*** | ***Button text*** | ***Macro*** |
|---|---|---|
| Running | F1 CQ | {CTRL−Y}CQ TEST DE * * * k{ENTER}{CTRL−Y} |
| Running | F2 EXCH | {CTRL−Y}! HI 599 {EXCH} {EXCH} K{CTRL−Y} |
| Running | F3 CFM | {CTRL−Y}! QSL TU DE * QRZ? K{CTRL−Y} |
| S&P | F1 CALL | {CTRL−Y}! DE * * K{CTRL−Y} |
| S&P | F2 EXCH | {CTRL−Y}DE * TU 599 {EXCH} {EXCH} GL DE *{CTRL−Y} |

- **Example macros for MMTTY (Digital interface window)**

| ***Button text*** | ***Macro*** |
|---|---|
| Abort | {CTRL−C}R{ENTER} |
| Tx | {TX} |
| Rx | {RX} |
| Band Up | RB U{ENTER} |
| RxReverse | RXREV T{ENTER} |

- **Example macros for MMTTY (Entry window function keys)**

| ***Mode*** | ***Button text*** | ***Macro*** |
|---|---|---|
| Running | F1 CQ | {TX}CQ CQ CQ TEST DE {MYCALL} {MYCALL} K CQ{RX} |

| | | |
|---|---|---|
| Running | F2 Exch. | {TX} ! UR 599 {EXCH} 599 {EXCH} BK{RX} |
| Running | F3 Tnx/Qrz | {TX} ! TU GL DE {MYCALL} QRZ{RX} |
| S | F1 {MYCALL} | {TX}! DE {MYCALL} {MYCALL}{RX} |
| S | F2 Exch. | {TX}! UR 599 {EXCH} 599 {EXCH} GL DE {MYCALL}{RX} |

### 34.2.4 *Packet macro examples*

- **Connect the Local DXcluster using TAPR firmware:**
  - {CTRL−C}C {CLUSTER}{ENTER}
    the above sentence is specified for a function key in the Packet Window.
    - {CTRL−C} sends a Control−C character to the TNC which is placed in command mode.
    - {CLUSTER} will be substituted with the Packet Node Call from the Station Information dialog. In my case PI8RWD−7.
    - {ENTER} will be substituted with the Enter key.
  - The result is that the TNC is placed in Command mode (with CTRL−C) and C PI8RWD−7 is sent to the TNC because an Enter is sent after the command.

- **Connect the Local DXcluster using TF/Nordlink firmware:**
  - {ESC}C {CLUSTER}{ENTER}
    the above sentence is specified for a function key in the Packet Window.
    - {ESC} places an Escape character in the command line buffer. This is the same as Shift−Escape when the cursor is on the command line from the Packet Window.
    - {CLUSTER} will be substituted with the Packet Node Call from the Station Information dialog. In my case PI8RWD−7.
    - {ENTER} will be substituted with the Enter key.
  - The result is that the TNC is placed in Command mode (with ESC) and C PI8RWD−7 is sent to the TNC because an Enter is sent after the command.

- **This is an example where more commands are placed under one function key:**
  - {ESC}I {MYCALL}{ENTER}{ESC}P 100{ENTER}{ESC}S1{ENTER}{ESC}C {CLUSTER}{ENTER}
    the above sentence is specified for a function key in the Packet Window.
    - {ESC}I {MYCALL}{ENTER}
      Sends my call to the TNC.
    - {ESC}P 100{ENTER}
      Change the Persistence to 100
    - {ESC}S1{ENTER}
      Change to channel 1
    - {ESC}C {CLUSTER}{ENTER}
      Connects my local DXcluster

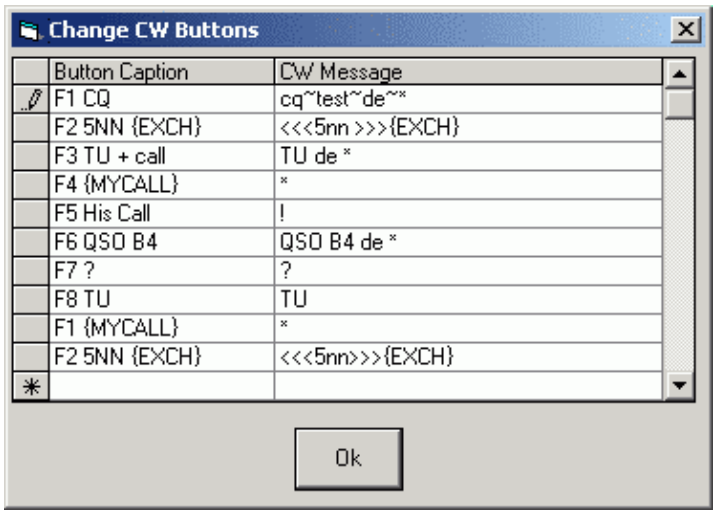
    So one function keys does it all!!

# 35 How To

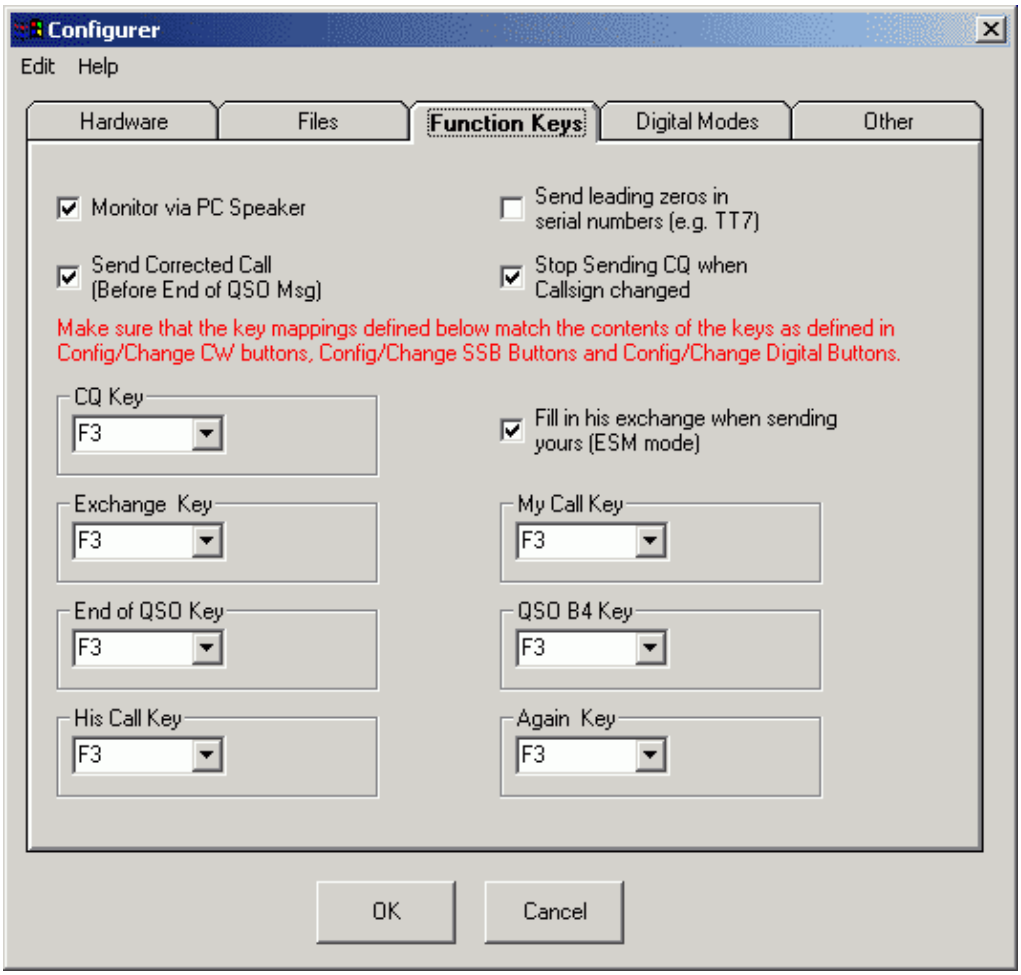
## 35.1 How to send messages in cw?

You need to do two things:

2. Set the message properly in Config/ Change Packet/CW/SSB/Digital Message Buttons/ Change CW Buttons. The first 8 rows are the run messages for F1−F8. The second 8 rows are the S&P messages for F1−F8. If you have less than 9 messages, the S&P messages will just repeat the Run messages.




1. Make sure that the function key tab in the main configurer (Config/Configure Ports, Telnet Address, Other) has each button set to its correct meaning. I.e. if F1 is your CQ key as set in the messages (#1 above), then make sure that the "CQ Key" box is set to F1.




To send the serial number in any message, put the character # as part of the CW message in #1 above. There is a list of other characters that you can substitute.
The macros which can be used and some examples can be found on the macros page.

## 35.2 How to set up the function keys so it works ok with 'Enter mode'.

Below an example of a possible setup from Jose, CT1AOZ.

Setup the function keys (Config | Configure Ports, Telnet Address, Other | Tab: Function Keys)

| | |
|---|---|
| CQ Key | F1 |
| Exchange Key | F2 |
| End of QSO Key | F3 |
| His Call Key | F4 |
| My Call Key | F5 |
| QSO B4 Key | F6 |
| Again Key | F8 |

Enable all check box options except Monitor via PC speaker (but you may if you want to).

Now set the " MACROS " in the "Config|Change CW buttons", the same settings are used for the SSB and the RTTY buttons.

| ***Button Caption*** | ***CW message / .WAV file /Text to Send*** |
|---|---|
| F1 CQ | CQ CQ ** |
| F2 Exch | <<< ENN >>># |
| F3 TU | TU * |
| F4 My | * |
| F5 His | ! |
| F6 QSOB4 | ! QSOB4 TU * QRZ |
| F7 His/TU | ! TU |
| F8 Again | ! AGN PSE * |
| S−F1 QSY | PSE QSY QRL * |
| S−F2 Exch | <<< ENN >>># |
| S−F3 | |
| S−F4 My | * |
| S−F5 His | ! |
| S−F6 QSOB4 | ! QSOB4 DE * |
| S−F7 Corr | |
| S−F8 Again | |

As Jose writes: Try this and I'm sure you will be happy with the performance of the program and the ENTER KEY MODE...

## 35.3 How to find a worked station in the log when I missed the beginning of the call and only have (part of) the suffix?

There are three possibilities to find a worked call in the log. The results are shown in the bottom part of the low window below the logged qso's.

- When entering the beginning of a callsign after 3 characters a worked station starting with these three characters will be shown automatically.
- When you have from N1MM only N?M this is also enough to show N1MM and every other station that starts with N?M.
- When you only have 1MM and missed the first part of the prefix you can place a * in front of the characters you have. *1MM will show N1MM and every other station that starts with 1MM in the callsign.

Combinations are also possible:

- *1?M will show N1MM but also K1MR, J41YM etc.
- *3? or *3* will show all worked callsign with a 3 in the callsign
- *3*Z will show every station with a 3 followed by a Z somewhere in the callsign like K3ZO, VA3UZ etc.

Using a * is called a "like" search in sql. The problem is that a "like" search is very slow so on slow computers this will take some time.

## 35.4 How to record Wav files for the Function keys used in SSB contests.

Here is what I recommend (by Tom, N1MM).

1. Use Cool Edit. I use Cool Edit 96, but there are later versions.
2. Record **all** of the messages on one wav file. Make sure you have a quiet room. Record each message at least TWICE. Sound excited!
3. Leave 5 seconds of empty space at the beginning of the recording.
4. Record.
5. Save the recording as "Raw CQ" or some such.
6. Use Cool's noise reduction feature. Mark the blank part of the wav, and set the noise reduction, then noise reduce the whole wav file.
7. Save the recording as "Noise reduced CQ".
8. Perform bass reduction, treble boost or whatever other transformations and save them as you do them.
9. You can use compression, but I don't recommend it.
10. Split the wav file into the separate messages, saving the best of the two recorded.

When you are done, they will all be recorded at the same level and sound the same.
Don't ask why you need Cool Edit 2000. Just get it at http://www.syntrillium.com/

Place the Wav files you have made in the *N1MM Logger\wav* directory and call them cq.wav n1mm.wav 59.wav etc. Just what you like!
In the program I specify them as

```
CQ      wav\cq.wav
N1MM    wav\n1mm.wav
Exch    wav\59.wav
```

NOTE THERE IS NO LEADING \ !
This notation means to start looking for the dir at the current dir (N1MM Logger or whatever).

Below some extra information from Mario, S56A, N1YU

- I recorded CQ CONTEST FROM S56A S56A CONTEST, S56A, THANKS S56A, THANKS 599 15 in one session. That should cover most of my automatic SSB transmissions.
- I used 20 dB MIC preamp in SoundBlaster and spoke few words before the real recording in order to settle ALC. I used modest 8 bit 11K sampling.
- Graphic equalizer was later used with 125 Hz cutoff, flat settings on 250 and 500 Hz, +7 db on 1 kHz, +14 dB on 2 kHz and − 18 dB on 4 kHz.
- Output was checked for flat topping and later normalized. This is NOT Hi−Fi sound but HF SSB optimised audio.

# 36 Frequently Asked Questions

## 36.1 Program errors and requests

**Q. Where can I download the program?**

- All information for a first or a subsequent install can be found at the installation page

**Q. The program displays an error. What should I do?**

A. When the program displays an error or suddenly ends this may be a bug in the program or a problem on your computer. Here are some hints on how to determine if it is a bug and how to report it.

- Try to record what you did when it happened.
- If you do the same thing again does it happen again?
- If so, try to run 'clearregistry.bat' in the program directory of N1MM logger. You will reset all of your configuration settings, but this often fixes the problem.
- If the problem still exists, submit a bug report and give as much information as possible.
    - What operating system are you running?
    - How fast is your computer (processor speed, type of cpu)?
    - How much memory does the computer have?
    - What log are you using (DX, CQWW CW etc)?
    - What radio are you using?
    - What are the steps to reproduce the problem?
    - Has it worked before (earlier version)?
    - Any information you think is necessary to help resolve the problem. What things are working, what is not.
    - Enter this information to the form on the bug site from G4UJS

**Q. Why isn't there an xyz feature?**

A. If you haven't at least looked at the key assignments in the help, please don't ask.

**Q. It seems like N1MM has favorites. Why do some users get almost all their requests implemented, and others don't?**

A. You are right, he does have favorites. Want to be a favorite? Follow these rules:

- Read the help before reporting a bug. I.e. understand what the program is supposed to do.
- Do some work to determine the circumstances that cause the bug. Don't report, "I start the program and it crashes, what's up?" Instead report, "I am running 1.1.xxx. My radio is an FT−1000D, and I'm using the dx log. If I try to start with ESM mode, the program gets a runtime error xxx. If I clearregistry and start again everything is fine, but every time I set ESM mode, the runtime error returns." That is a problem that can be fixed. The first description can't.
- Don't ask for general logging features. This is a contest program.
- Don't install the program during CQWW, and then complain about it. This actually happened!
- Reports from the heat of a contest get the most attention. If they are serious bugs during the contest, they'll get fixed if possible. Feature requests that are a result of making a lot of qso's in a contest get more weight than "wouldn't this be nice".
- Remember that this is a freeware project, and you are expected to help.

**Q. The contest I want to participate in is not listed, what to do?**
The N1MM logger does not have a contest setup program so you can't create your own contests. Make a request you want this contest added. There are some possibilities to use a supported contest or general logging (DX) for the contest you want to participate in. Most of the times the multipliers are not correct but the dupes are checked. In some contests you could use an adapted CTY.DAT file (like the PACC contest). If the contest committee wants to have Cabrillo logs the multiplier will be calculated by them.

## 36.2 Program features

**Q. When I tune close to a station in the bandmap, the call appears in the frame around the callsign field. Do I have to retype the call to enter it?**

A. No. Press the space bar, and if the callsign field is empty, the call from the frame will be placed in the callsign field. You can use the space bar as your normal Tab key.

**Q. Is there any way I can avoid having the tab key jump to fields (like rst) that don't normally need to be changed?**

A. Yes. Use the space bar. It is the preferred tab character in the entry window. The space bar operation is described in the Key Assignments portion of the help.

**Q. Why don't the calls of the stations that I have already worked show up in the Check window?**

A. They appear in the bottom portion of the Log window (the one with your contacts). Also, once you press the space bar, dupe will appear if the station is a duplicate.

**Q. In ARRL Sweepstakes, the program ignores two−digit NR's. What can I do to enter a two−digit serial number?**

A. You have two choices. Either enter 033 for 33, or append the precedence without a space, like '33B'. I'm thinking about programmatic solutions.

**Q. What will the program send when the exchange is a number?**

A. There are two possibilities. Let's assume the last qso had qso number 133
If the callsign field is filled with a call the next number will be sent. Example: 599 134
If the callsign field is empty the last number will be sent. When there is no callsign why give a new number, most probably the last worked stations asks his received number again. This number will be sent. Example 599 133

**Q. I connect to packet, do a sh/dx/30, but no spots show up in the bandmaps. What's up?**

A. A few things can be wrong. First, check to make sure that the spots are not older than the Packet Spot Timeout value in the configuration dialog (Config/Configure Ports, Telnet Address, Other/Other). If this is not the cause of the problem, make sure that your system is set to the proper time zone (not GMT!), with the proper daylight savings time option in Windows (not in N1MM logger). Next, make sure the time on the PacketCluster is close to the time on your system. Finally, make sure the dates of your system and the PacketCluster system are the same. Note, if you connect to a local, non−internet connected PacketCluster early in the morning, often there are few, if any, current spots available. This is normal.

**Q. While sending cw my keying speed slowed but the display did not change. What is happening?**

A. It is possible in cw to send parts of a message faster (mostly in the exchange)than the normal text. This can be done with the characters < (increment CW speed by 2 wpm) and >(decrement CW speed by 2 wpm). When the speed slows down or increases without the display changing than there are probably unmatched < < <  >>>characters in your exchange.

**Q. How do I spot stations?**

A. Spotting stations may be done from the Entry window.
The station entered in the callsign field will be spotted. If the callsign field is empty the last qso with its correct frequency will be spotted.

- Alt−P spots stations
- Ctl−P spots them with a comment.

It is also possible to spot every logged qso automatically. Only stations not already in the bandmap and stations that are worked while searching pouncing will be spotted.

**Q. How to start a repeated CQ?**

A. Ctl−R sets the repeat time. Alt−R toggles repeat mode on off.

**Q. There is a missing section or abbreviation for a section. Can I add it?**

A. Yes, go to 'Config / Change Packet/CW/SSB/Digital Message Buttons' and select the table to edit.

**Q. Is the score displayed anywhere?**

A. Yes, the last pane in the status bar at the bottom of the Entry Window is the score. The middle pane shows Q's/Mults.

**Q. I'm sure the shown score is not correct, what to do?**

A. Do a rescore, this is a slow process so do it after the contest or only when you have not to much qso's
If the score is still off and the log to send is cabrillo then there is no problem because the score will be calculated by the ARRL, CQ etc.
If the log to send is not cabrillo you have to edit the log file made by the program (you won't like that...)

**Q. How do I change (CW/SSB/RTTY etc.) messages without retyping them?**

A. Click on the message you want to change. The entire message will be highlighted. If you type now, the message will be deleted, and your typing will take it's place. To insert characters or delete characters >from the message, click once again at the position you want to edit. Alternatively, press F2 and the cursor will be placed at the end of the text, at which point you may edit the message. This technique can be used anywhere you are able to edit a grid in the program.

**Q. The program says: Can't find Master.dta etc.**

A. Are you starting the program in its own directory?
I.e. if you have an icon for it, are you setting the Start in parameter to the directory in which the program is loaded? Master.dta must be in Program start−up directory (usually C:\Program Files\N1MM Logger).

**Q. When I start N1MM logger it changes the mode (LSB/USB/CW) on the transceiver.**

A. This is contest dependant. When a CW contest is selected (example: CQWW CW) the radio will automatically be placed in CW, the same for Phone contests but then it will be placed in SSB. When a contest is chosen which accepts both SSB and CW (Example: ARRL 10 Meter) the program changes nothing.

**Q. How do you delete contest databases you don't want anymore ... i.e. those used for testing purposes.**

A. A database is a .mdb file and contains multiple contests.

- Delete that file if you want all your contests to go away (I doubt it). You'll need to leave an empty ham.mdb around somewhere to replace it. Deleting a database can **usually** be undone by retrieving it from the recycle bin.
- A contest can be deleted by picking it in the contest selection dialog and pressing delete. Read the confirmation message and look at the number of rows carefully before deleting. Once a contest is deleted, it cannot be retrieved.

**Q. How do you delete a row from a table i.e. the function keys, exchange abbreviations etc.**

A. To delete a row, click on the row "handle" − the gray arrowhead − and press the delete key.

**Q. How to print a Summary Sheet?**

A. Go to 'View', 'Score Summary' and select 'Print Summary Sheet to File'. A file [callsign].sum will be made. Example: N1MM.sum
This is a normal ascii text file which can be edited with any text editor before being send to the contest manager.

## 36.3 Yahoo Discussion Group

**Q. If you think you get to much E−mail.**

A. Do you want to reduce or eliminate the number of emails you are receiving about this program? Do the following:
Go to: http://groups.yahoo.com/group/N1MMLogger then select "Edit my membership". It is on the right, near the top. Then choose from the four choices:

- Individual emails − Send individual email messages
- Daily digest − Send many emails in one message
- Only special announcements − Only send me important update emails from the group moderator.
- No email − Don't send me email, I'll read the messages at the Web site
  If you choose "No email", I will only send you email if a really serious bug develops (like one that loses your log data). So far, I have never had to, but I think it is important to have that capability.

Make sure to save changes.
DO NOT SUSPEND YOUR YAHOO ID. I will get bounce messages about your id, and remove it.
Another way of handling many emails is to use a filter to organize emails into folders in your mail reader. Different readers will support this in different ways.

**Q. Are you no longer receiving emails from this group?**

A. The reason may be that you email has been "bouncing".
Yahoo keeps track of how many emails are returned from the email address that you give it. If too many are returned, you show up on a bounce list.
If you are on the bounce list, you no longer will receive emails. Periodically, I go through the bounce list, and set your account to receive no emails, and "unbounce" you. Once you have corrected the problem with your email address, you can reset your options to individual emails or daily digest as you prefer (see "Edit My Membership", "Message Delivery"). Note that if you are bouncing from other groups within Yahoo, those bounces count towards putting you on the N1MMLogger "bounce" list. I can't change this. Now that membership is no longer required to download, I delete all the bouncing id's from membership. You may rejoin at any time, but you'll need to correct the problem that caused you to bounce, or it will happen again.

**Q. I have problems downloading files from Yahoo.**

A. There are many possibilities, below some frequent problems

- Do you have enough room on your hard disk? Having more than 10 MB free would be nice
- Already tried to download with the 'Save as' function. Right click on the file to download and select 'Save as' or equivalent.
- When using Netscape disable/remove Netscape Smart Download
- ...

## 36.4 Digital modes

**Q. The callsign to grab already scrolled of the screen (RX window), how to grab it now?**

A. You can pause the RX screen by clicking on the green strip on the side which will pause the input and scroll back to where you need to and click on the callsign. To turn input to the window back on click in the pane again and everything that was to be printed to the window will now enter the window.

**Q. A message "lost sound" briefly appears in the MMTTY waterfall.**

A. Try to bring up the sound card buffers under Misc settings in the MMTTY setup or the combination of MMTTY and N1MM Logger may be too much for your processor.

**Q. The MMTTY RTTY Engine panel is always on top of the other windows.**

A. No, you can change this in the configuration dialog (Config/Configure Ports, Telnet Address, Other/ Digital Modes).
There is also the ability to choose between Fullsize(Normal) window and Small window (without controlpanel)

## 36.5 Other

**Q. The program won't accept the exchange send by the station.**

A. This could be a bug or an operator who doesn't know what he is doing.
The workaround is that you log the contact with whatever the program wants, then go edit it (Ctl−Y) to make it what it should be.

**Q. Why doesn't the help work? Why is it out of date?**

A. The help changes on a schedule different from the program. You need to download it separately. Like all the other parts of the program, it can be downloaded from the N1MM homepage. The Help is also available in PDF format so it can be printed.

**Q. Where to get the latest country file for the program.**

A. The country file used by the program is CTY.DAT in the program directory. Information about this file and how to update this file can be found on the File Information page.

**Q. How to setup the time on the computer.**

A. There are two options

- Run your computer in *local time* with the correct daylight time choice selected (recommended). The GMT Time will change correctly in the middle of the contest.
- Run your computer with the time zone set to Monrovia (*GMT time*). There is a bug in some versions of Windows that makes the London time work incorrectly

**Q. I have used the wrong type of contest, what now?**
Is there a quick way of converting the log or do I have to copy all the contacts by hand.

No not really but it can be done. This example is for converting >from DX to CQWW SSB.

1. Back up your database. Omit this step at your peril.
2. Export the log using ADIF.
3. Edit the ADIF log until it has all of the columns you want. Use global change replace to fix the types.
4. I'm sure your zones are probably in the wrong column, you'll need to change the type. To find the type, create a sample log for CQWW and export that (ADIF format). Make the CQWW SSB exported ADIF log look like the DX exported ADIF log.
5. Change the contest ID from DX into CQWWSSB (see the sample log you made in the step above)
6. Start a new CQWW SSB contest (the date doesn't matter in the choose contest dialog).
7. Import the modified ADIF file into the new contest.
8. If the score is wrong, rescore (I think it will be correct).

**Q. My computer lost a lot of time during the contest.**

During a 48 hours contest we lost about 10 minutes. Windows is known to do this during heavy usage of the computer.
This is both a question and a warning. Check your time. I don't think 10 minutes will concern the log checkers, but it's just smart to watch it.

There are tools for resyncing your time with Internet time standards.
A nice one used by N1MM logger users is Dimension 4 (http://www.thinkman.com/dimension4/ − opens a new window) .

**Q. Where can I download parallel and serial port support for NT, Windows 2000 & XP?**

A. Download DLportIO.zip. A link containing the required dll can be found in the installation section.
To install, follow the instructions in section 3.2 of the file DLPORTIO.PDF. It is called:
*Automatically Installing the DriverLINX driver.*
The actual code installed and operating is tiny compared to the size of the zip file.

**Q. I installed DLPORTIO but still no CW from the parallel/serial ports (NT, Windows 2000 & XP)** or

**Q. I keep getting a "red" error message in the Entry window that says "no cw port configured".**

A. Try installing DLPORT.DLL if no success just copy the DLPORTIO.DLL and DLPORTIO.SYS in the logger directory and try again, this sometimes works...

# 37 Customizing the DXCC list

## 37.1 Updating the country file − CTY.DAT

The program uses a country file from which it takes all the information like the country name, CQ zone, ITU zone, continent, latitude and longitude etc. This file called CTY.DAT is being used for all contests supported by the program.

When entering a callsign the left pane of the Entry Window will give Prefix, country name, CQ zone and continent. The Info Window will gives this information and additional calculated information like beam heading, distance, sunset and sunrize.

### 37.1.1 How to update the country file.

- You can download the update from: http://www.k1ea.com/cty/
- The file is called cty.zip. This single file contains files for CT, NA, TR and WriteLog. The files can also be downloaded separately from this page.
- Use the *CT9 version* (cty.dat) or the *Writelog version* (wl_cty.dat) which is preferred.
- NB. The Writelog version has to be *renamed from wl_cty.dat to CTY.DAT*.
- Copy the file CTY.DAT in the N1MM logger program directory and *load the file via Tools/Reload CTY.DAT*.

### 37.1.2 CTY.DAT file format

The format from CTY.DAT is as follows:

| ***Column*** | ***Length*** | ***Description*** |
|---|---|---|
| 1 | 26 | Country name terminated by a colon character. |
| 27 | 5 | CQ zone terminated by a colon character. |
| 32 | 5 | ITU zone terminated by a colon character. |
| 37 | 5 | 2−letter continent abbreviation terminated by a colon character. |
| 42 | 9 | Latitude in degrees, + for North terminated by a colon character. |
| 51 | 9 | Longitude in degrees, + for West terminated by a colon character. |
| 61 | 9 | Local time offset from GMT terminated by a colon character. |
| 69 | 6 | Primary DXCC Prefix terminated by a colon character. |
| next line(s) | | List of prefixes assigned to that country, each one separated by a comma and terminated by a semi−colon. |



Note: The fields are aligned in columns and spaced out for readability only. It is the ":" at the end of each field that acts as a delimiter for that field.

Alias DXCC prefixes (including the primary one) follow on consecutive lines, separated by ",". If there is more than one line, subsequent lines begin with the ""continuation character. A ";"

terminates the last prefix in the list.

If the country spans multiple zones, then the prefix may be followed by a CQWW zone number in parenthesis, and it may also be followed by an ITU zone number in square brackets, or both, but the CQ zone number in parenthesis must precede the ITU zone number in square brackets.

The following special characters can be applied to an alias prefix:

(#) Override CQ zone where # is the zone number

[#] Override ITU zone where # is the zone number

### 37.1.3 Writelog country file

N1MM logger can also use the country file WL_CTY.DAT from WriteLog which has extra CQWW zone information for several countries including: Canada, Australia, and China. Because each of these countries is allocated a multitude of prefixes, but the CQWW zone is determined by the call area regardless of prefix, a very large number of entries would be ncessary to spell out all the combinations. Instead, WL_CTY.DAT contains special "macro" commands that indicate how the CQWW zones are determined for that country. See the example below.
NB. The file WL_CTY.DAT has to be renamed to CTY.DAT! See the update instructions.

### 37.1.4 Other info

- You can override the continent, zone etc. on a prefix−by−prefix basis.
- Primary prefixes preceded by an ***** are only valid for the CQWW and WAE contests. The logging program will ignore these lines otherwise. When updating the country file please don't remove the *****.
- The logging program doesn't handle prefixes such as FR5ZQ/J correctly. Listing FR/J as a prefix for Juan de Nova in the country file doesn't work unless a station signs "FR/J" as his callsign. If you work one of these islands, you'll have to add the callsign of the worked station to the country file manually before it is counted as the right country.
- When updating the CTY.DAT file use a text editor, not a word processor. Notepad is fine, watch out for Wordpad etc, always save as a text file!
- After updating the CTY.DAT file it has to be reloaded. *Reload the file via Tools/Reload CTY.DAT*.
- After a Reload the prefixes are written into the database which you are using. When changing to another database you have to do a reload again to be sure that you use the most recent country file (or the one you want).
- When a database is copied, also the prefixes in it will be copied. So if the country file was updated in the original file after a copy you don't have to reload CTY.DAT.

### 37.1.5 Examples

*Netherlands: an easy example with nothing special. The program will assign all calls starting with PA, PB, PC, etc. to the country Netherlands in CQ zone 14, ITU zone 27 and EU as continent. PA will be the the prefix shown in the multiplier window.*
Netherlands: 14: 27: EU: 52.40: −4.90: −1.0: PA:
PA,PB,PC,PD,PE,PF,PG,PH,PI;

*Greenland: Normally only stations with OX are counted as Greenland. The callsign XP1AB has been added which normally belongs to Denmark (OZ). XP1AB will be valid as Greenland with*

*standard Greenland parameters i.e. zones, continent etc.*
Greenland: 40: 05: NA: 62.50: 45.00: 3.0: OX:
OX,XP1AB;

*African Italy: This is an example where a * is added before the primary prefix which means that the country only counts in CQ−sponsored contests.*
African Italy: 33: 37: AF: 35.40: −12.50: −1.0: *IG9:
IG9,IH9,IQ9L,IZ9;

Other nice examples with zone changes on calls are VE and UA9, see the CTY.DAT file in the program directory.

*Writelog macro example.*
*The macro starts with # and ends with the next ; It means that for all the prefixes in China the zones are determined by the call area and first letter of the suffix.*
China: 24: 44: AS: 40.00: −116.40: −8.0: BY:
# BY: BY3G(23),BY3H(23),BY3I(23),BY3J(23),BY3K(23),BY3L(23),
BY9A(23),BY9B(23),BY9C(23),BY9D(23),BY9E(23),BY9F(23),BY9G(23),
BY9H(23),BY9I(23),BY9J(23),BY9K(23),BY9L(23),BY9T(23),BY9U(23),
BY9V(23),BY9W(23),BY9X(23),BY9Y(23),BY9Z(23),BY0(23);
3H,3I,3J,3K,3L,3M,3N,3O,3P,3Q,3R,3S,3T,3U,BG,BT,BW,BY,BZ,XS;

# 38 Technical Information

## 38.1 General Information

N1MM logger is a contest program written in Microsoft Visual Basic which uses a Microsoft Access 2000 database for storing information. Writing and retrieving data to and from the database is done with SQL (Structured Query Language).
For running the program no more programs or files are necessary than supplied in the installation package and the program update.

Do you need all the information given below to use the program? **NO**

We recommend not to change any data in the database or any other files unless you are very sure what you are doing. It is possible to change the behavior of the program and get erroneous results. If you have changed the contents of the database and the program behaves strange go back to the original (unaltered) version of the database.

No support will be given to users who change the database structure or contents. The same goes for changing registry settings and files used by the program.

***You are on your own!***



Note: Normally there is no need to access the database or registry settings.
Don't make changes if you are not very sure what you are doing. **Second and last warning!**

When you are interested in the structure of the database you need to have installed Microsoft Access 2000 or the Access 2000 viewer or more recent versions.



Note: When changing data always make a backup from the database (and preferably the whole N1MM logger directory).

## 38.2 Why is this information given?

Accessing information direct in the database sometimes gives possibilities not directly supported by the program.

Examples:

- You want to have reports which are not (yet) standard in the program. With some knowledge of SQL and Access it is possible to generate your own.
- Changing information in the database can sometimes be done much easier this way than within the N1MM logger program
  Example: The time is off by an hour for the whole contest.



Note: After changing qso information always do a rescore!
N.B. Multiplier information and qso points will be updated after a rescore so these changes made direct in the database will be lost. Change multiplier and qso points in the (Cabrillo) output files.

**N.B. It is not possible to add a contest to the program this way.**
Contests and it's rules etc. are in the main program file (N1MM logger.exe) and are not stored in the database or any other files!

## 38.3 Directory structure

The default directory where the program is installed is in the 'Program Files' directory on the first hard disk (C:).
Below this directory two directories are (or can be) made to support Digital Voice Keying (DVK).

| | |
|---|---|
| C:\Program Files\N1MM Logger | Program file directory |
| C:\Program Files\N1MM Logger\Letters | Directory to store all wav files to 'speak' numbers and letters.<br>Example files are in the Files ection on the Yahoo reflector |
| C:\Program Files\N1MM Logger\Wav | Directory to store all wav files used in the SSB function keys.<br>You have to make these yourself. |

## 38.4 Where is the program information stored?

There are several places where program information is stored.

- The Access database file
  - ♦ After a first install called HAM.MDB
  - ♦ You can rename it or add your own databases from within the program.
  - ♦ General contest information
    - ◊ Contests information
    - ◊ Station information
    - ◊ QSO's made in the contests
    - ◊ Packet spots
    - ◊ (Function) key information
    - ◊ Country information
    - ◊ Etc.
- The Windows registry
  - ♦ Program settings from the configuration screens
  - ♦ Window settings (screen setup)
- Configuration files
  - ♦ Setting up your external TNC
  - ♦ MMTTY specific files
- Other files
  - ♦ Wav files for cq etc.
  - ♦ Exported Cabrillo, ADIF, generic log and summery sheet files

## 38.5 The Access database

A database has tables with in it the data.

| ***Table*** | ***Contents*** |
|---|---|

| | |
|---|---|
| BandModeFrequency | Radio (vfo) number, frequency and mode information used when changing band. |
| Contest | All the available contests in the program |
| ContestInstance | The contests which are shown in the Previous contest dialog |
| CTYDAT | Country information like 'master' prefix, name, CQ and IARU zone, latitude, longitude etc. |
| DXLOG | QSO's from all the contests in the table ContestInstance |
| Lookup | (Function) keys, States, Provinces etc |
| PacketSpots | Packet spots for all the bands. Spots from this table are shown on the bandmaps |
| PacketSpotsTest | Test packet spots (for program development) |
| Prefixes | Prefixes recognized by the program with default country prefix |
| SectionsWorked | Information to show the section multipliers in the Multipliers by Band window |
| Station | Station information i.e. call, name, address etc. |
| ValidCalls | Not used anymore (empty) |

## 38.6 The Windows registry

In the windows registry program information like window and configuration settings from the configuration screens are stored. Also the most recent used database and contests are stored here.

The information in the registry can be exported and imported in the File menu.

- 'File / Export / Export Program settings to File' − The file 'N1MMWindows.txt' is made
- 'File / Export / Export Windows settings to File' − The file 'N1MMSettings.txt' is made
- 'File / Import / Import Program settings to File' − The file 'N1MMWindows.txt' is retrieved
- 'File / Import / Import Windows settings to File' − The file 'N1MMSettings.txt' is retrieved

For more information about these settings look in these ASCII files.

## 38.7 Configuration files

After installation the files below are stored in the N1MM logger program directory.

### 38.7.1 Program files

Never delete these (program) files!

- arrow.bmp − arrow icon used in the bandmaps (non active bandmap)
- clearregistry.bat − used to clear the contents of the registry used by the program. After using this program you have to enter all the configuration information again and set up all the windows.
- cty.dat − the country file used when the menu item 'Tools / reload CTY.DAT' is selected.

- CW IF.exe − this is the Active X component which generates the CW
- cyanarrow.bmp − arrow icon used in the bandmaps (active bandmap)
- empty.wav − file used to stop sending a wav file
- led_Red.bmp − icon used when a message is shown which needs attention
- master.dta − file used by the Check window with calls from many contesters
- N1MM Logger Help.chm − windows help file (shown when pressing Alt−H)
- N1MM Logger.exe − the N1MM logger contest program
- N1MM logger.pdf − the manual which is shown when selecting 'Help / Manual'
- reddot.gif − icon used when a warning message is shown in the Entry window pane
- ST6UNST.LOG − file used by windows when removing this program from your hard disk
- Suncalcs.dll − dll used by the program
- Update Log.wri − overview from the last program changes and updates. Do read!!
- Upgrade.bat − file to register CW IF.exe to Windows (normally automatically done by the program)

### 38.7.2 Database files

- ham.mdb − default database file (don't delete)
- hamnew.mdb − default database file used when a new database is created by the user (don't delete)
- *. MDB − database files made when selecting 'File / New Database'.
  Deleting this file means loosing all the contest qso's in it. It's good practice to make a new file every (major) contest and name it after the contest. Example: PACC2002.MDB

### 38.7.3 Files created on your command

- N1MMSettings.txt − Windows settings created when selecting 'File / Export / Export Windows settings to File'
- N1MMWindows.txt − Program settings created when selecting 'File / Export / Export Program settings to File'
- .ADI − ADIF file made by the program when selecting 'File / Export / Export ADIF to file...'
- .LOG − Cabrillo file made by the program when selecting 'File / Export / Export cabrillo to file...'
- .SUM − Summery Sheet made by the program when selecting 'File / Export / Print Score Summery to File'
- .TXT − Log file made by the program when selecting 'File / Export / Export to File (Generic)...'

### 38.7.4 RTTY files

MMTTY files are not in the program installation package and should be downloaded separately when needed.

- MMTTY.exe − the MMTTY program
- MMTTY.ini − MMTTY configuration file
- MMTTY.* − other files used by the MMTTY program
- Settings.txt − example file for the AEA PK−232 external controller
- UserPara.ini − MMTTY program settings

### 38.7.5 WINPSK files

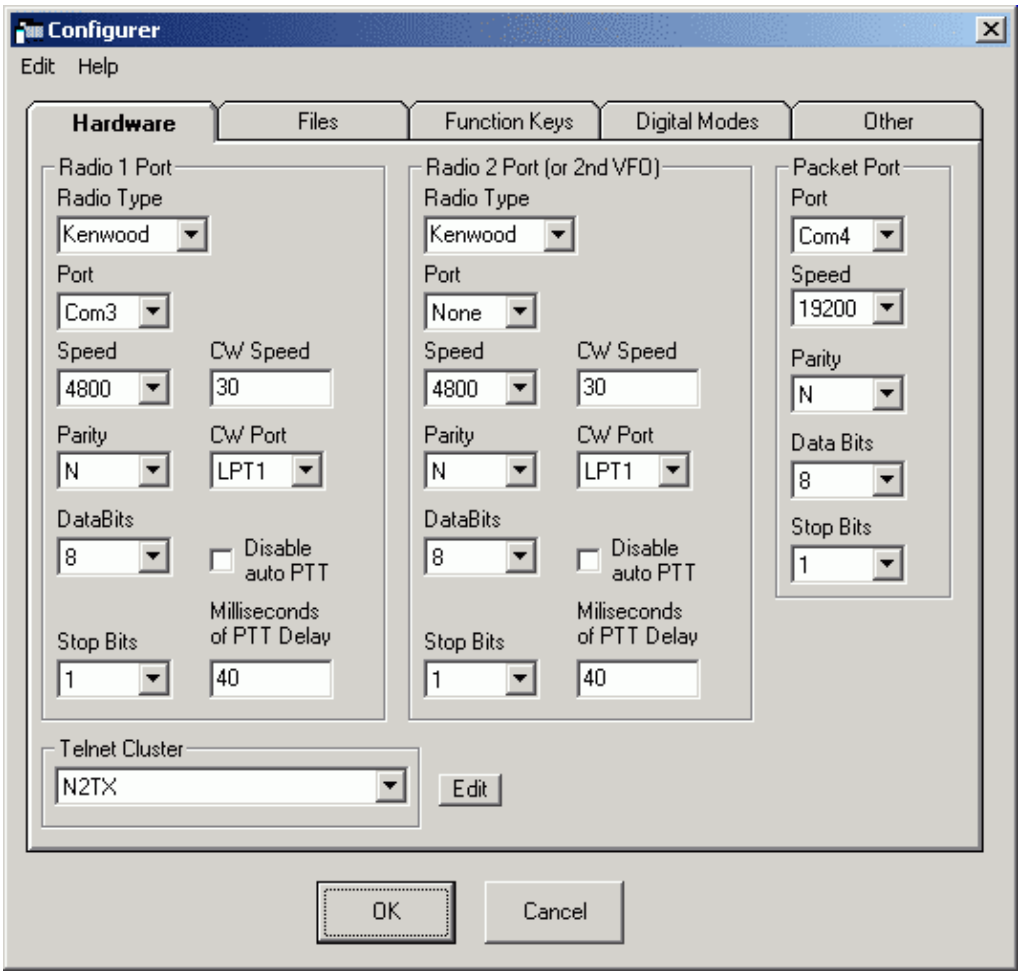
- PSK.pal − color setting file for the WINPSK dll
- WINPSKX.dll − WINPSK program file
- WINPSKX.oca − WINPSK support file

# 39 10 Pasos sencillos para tener éxito en las finanzas o para tener éxito con este programa − Adivina cual...

(y no..., no estaba bebiendo cuando escribí esto...)

Translated by: Fernando LW2DX
Date: april 2001
Version: 1.1.94

## 39.1 Paso 1. Setup




Realice todas las conecciones de su radio, packet y telnet (ver Tools/Configure). Sinceramente Ud. no se impresionarà si no conecta su radio. Este programa impresiona cuando las conecciones (packet o telnet) están activas.

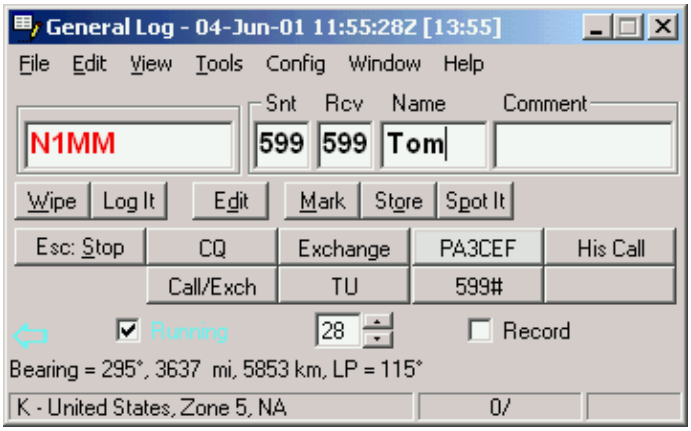
## 39.2 Paso 2. Ajuste de las posiciones de las ventanas

Ajuste las ventanas de acuerdo a su conveniencia.

## 39.3 Paso 3. Conecte su placa de sonido

Conecte su radio a la placa de sonido de su PC de manera de poder reproducir archivos “wav” y grabar contactos.

## 39.4 Paso 4. Ingresando un comunicado




Ok, ya estamos listos para logear. Por default Ud. debería estar en la ventana de logeo “DX”. De modo que desea ingresar un qso..??. Tipee en esa ventana, en el campo correspondiente al call, (en el que aparece JJ3YBB) el call de la estación que desee logear. Digamos que tipeó “N1MM”. Advierta que la ventana “CHECK” muestra calls que comienzan con N1M. Esto sucederá con cualquier call o parte de un call que tenga 3 o más caracteres de largo. Use el mouse y haga clic sobre N1MM. Advierta que N1MM será completado en el campo de logeo, los defaults serán seteados para aquellos campos que así lo permitan (en este caso los campos de RST) y el cursor se posicionará en el próximo campo que deba completarse, en este caso el del nombre de su corresponsal.

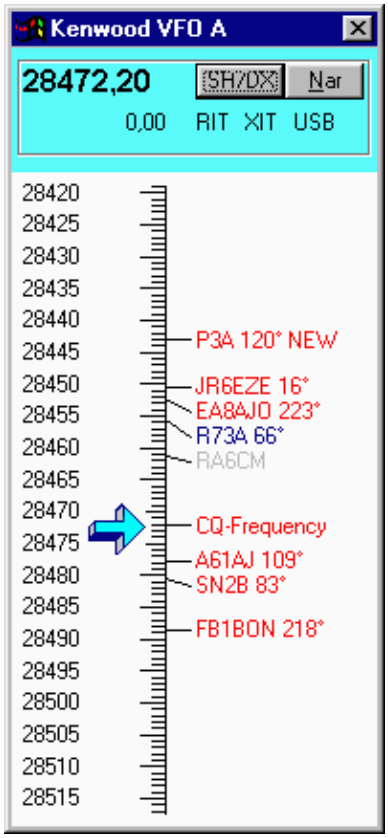
## 39.5 Paso 5. Uso de la barra espaciadora para tabular

Ok. Esto es muy práctico, pero tratemos de hacerlo de otra forma. Haga clic en el botón “WIPE” para limpiar los campos de la ventana de logeo. Su cursor estará posicionado en el campo de call nuevamente. Ahora tipee N1MM y pulse la barra espaciadora. Nuevamente los campos por default se completarán y el cursor se posiciona en el próximo campo a completar. Ingrese “TOM” y pulse la barra. En este caso no se tabulará hacia el próximo campo, toda vez que un espacio es un valor legítimo en cualquier nombre de persona. Este comportamiento es atípico. La mayoría de los campos para concursos no permiten espacios dentro de ellos, de manera que la barra siempre saltará de campo en campo. Seguramente a Ud. le gustará esto...!! Realmente pienso que le stará...particularmente durante los concursos.

## 39.6 Paso 6. Uso del tabulador

De modo que si la barra tabula, entonces que hace el tabulador..? También tabula, pero no lo hace como la barra espaciadora. La tecla TAB (y shift+tab) se comportan tal como lo hacen en la mayoría de los programas. Saltan de campo en campo, de modo que si es necesario cambiar el RST, se necesitará usar el tabulador para llegar a ese campo.

## 39.7 Paso 7. Mapas de bandas, spots y otros asuntos divertido




Muy bien, ahora la parte divertida. Necesitamos que aparezcan los spots en nuestro mapa de la banda. Si Ud. ya ha seteado su radio, debería tener a la vista dos mapas de bandas, y deberían mostrar las frecuencias de sus VFO´s A y B en la parte superior. Entonces, cómo hacemos para que aparezcan los spots allí.?. Necesitaremos conectarnos en packet o en telnet, por supuesto. Si Ud. posee una conección en internet, pruebe con telnet, y si es packet, pruebe con packet. Para elegir cuál, haga clic en la solapa correspondiente de la ventana “PACKET”. Para conectarse en packet, simplemente tipee los comandos en la ventana “ENTER COMMAND”, por ejemplo “C K1TTT” y presione enter. Luego haga todo lo acostumbrado. Luego tipee “sh/dx/100” (querremos muchos spots..!!) si es un weekend, de otro modo tipee “sh/dx/30” (Por qué la diferencia.? El programa no mostrará los spots más antiguos, dado que el tiempo default es de 60 minutos)

Para usar telnet, se deberá elegir un server. Esto se podrá hacer en la ventana de configuración (espero que no haya saltado el paso nº 1...) No quiero recomendar ningún server, por temor a que se sature, de modo que pruebe con cualquiera, cierre la ventana de configuración y tipee su señal distintiva en el campo “ENTER COMMAND” y presione enter. Conteste las preguntas que realizará el server y luego tipee “sh/dx/100 (queremos muchos spots..!!) salvo que no sea un fin de semana, entonces tipee sh/dx/30. Lo mismo respecto a la antigüedad de los spots en la conección de packet sucederá aquí.

## 39.8 Paso 8. Los spots son divertidos.

Los spots deberían empezar a aparecer. Entonces...qué podemos hacer con los spots.? Muchas cosas. Primero note que cada spot (excepto los de estaciones de USA) tienen la dirección de orientación de su antena a su lado. En realidad es la dirección de orientación para mi antena, en mi QTH. Lo que será muy malo ya que no será la orientación de su antena, en su casa. Si realmente

desea corregir esto vaya a “CONFIG/CHANGE YOUR STATION DATA” y allí deberá ingresar la latitud y longitud de su domicilio. Si no conoce la latitud y longitud de su domicilio, entonces.....bueno, esto no es una clase de geografía.

Cuando llegamos a la parte divertida.?. Ok. Ud tiene spots en los mapas de sus bandas. Pruebe con UN SOLO clic en uno de ellos. Advierta que su radio se sintoniza en la frecuencia de ese spot. También adviértase que el call aparece en la pantalla alrededor del campo callsign de la ventana de logeo. Ahora presione la mágica barra espaciadora nuevamente. El spot saltará en el campo de call..!! Probemos de esta otra forma. Haga clic en el botón WIPE (o presione Ctl+W). Ahora sintoniza tu radio a una frecuencia que difiera en 200 hz de algún otro spot. Advierta que el callsign aparece en la pantalla, y nuevamente la barra espaciadora lo ingresará en el campo correspondiente.

Ok, pruebe WIPE otra vez . Ahora haga DOBLE CLIC sobre un spot. Advierta que nuevamente, se pasa a la frecuencia del spot pero en esta oportunidad el callsign es ingresado en el campo call de la ventana de logeo y los campos con default son completados y Ud. estará listo para completar el próximo campo vacio, en este caso el del nombre de su corresponsal.

Haga WIPE nuevamente. Probemos de saltar sobre los spots sin usar el mouse. Su cursor deberá estar posicionado sobre el call. Si no lo está, póngalo allí. Ahora presione Ctl+flecha arriba o Ctl+flecha abajo. Ud debería estar desplazándose de spot en spot en la misma banda. Elija un spot al que pueda escuchar en su radio. Use las flecha−arriba y flecha−abajo (sin Ctl esta vez) para sintonizar la estación. Cada presión sobre la tecla moverá su sintonizador 100 hz en SSB y 20 hz en CW. Veo que está sonriendo...Hay mucho más...Para ver más funciones particulares de las teclas vaya a:

Key Assignments

## 39.9 Paso 9. Logeando comunicados

Ahora pondremos nuestra atención en el logeo de los comunicados. Ingrese un call en el campo correspondiente, presione la barra y luego tipee un nombre, cualquier nombre excepto “Arthur” en el campo del nombre (Lo siento mucho pero no me haré responsable si Ud. tipea “Arthur”) Ud. tipeó Arthur y nada sucedió, no es así..? Ok. Volvamos a lo nuestro. Presione enter y el comunicado aparecerá en la ventana “LOG”.

Ahora la parte divertida. Ingrese el mismo call nuevamente y presione la barra. Lo de siempre aparecerá, pero dos cosas también sucederán. El primer contacto se mostrará en la parte de debajo de la ventana “LOG” y el nombre del primer contacto aparecerá en el campo correspondiente al nombre. Si Ud. estuviese logeando un concurso, por ejemplo el ARRL DX, la potencia debería ingresarse desde el primer contacto. Si el primer contacto lo ha sido en la misma banda que el segundo la palabra “DUPE” en *grandes letras rojas* aparecerá.

Ok. Presione enter y logee el “dupe”. Ud. no estará de acuerdo conmigo en logear dupes..? Entonces haga un clic con el BOTON DERECHO en la ventana LOG sobre el dupe y elija “delete contact”. Y aquí no pienso decirle que hacer con la ventana de diálogo que aparecerá. Le creo. Siento como si ya fuésemos amigos...

## 39.10 Paso 10. El final excitante

Y ahora el final excitante. En realidad si lo hubiese llamado “el final aburrido” no lo hubiesen leído. En realidad es un poco aburrido, pero si han llegado hasta aquí puedo confiar en ustedes...Este

paso se refiere a todas las maravillosas cosas que se pueden cambiar en este programa. Si tratara de explicarlas todas, seguramente no leerían todo, asi que aquí va solamente un poco. Vean el Menú “EDIT”. Aquí podrán cambiar el uso de los numerosos botones del programa, como ser los botones para CW, packet, telnet, etc.

El menú “TOOLS” y “CONFIG” te permite cambiar las tablas de los estados, de las secciones, recalcular el score de un concurso y recargar el archivo “CTY.DAT”. Ni que mencionar la configuración que todos conocemos y queremos.

## 39.11 Paso 11. Grabaciones en CW y WAV

Hey...un momento....Haz dicho que eran 10 pasos....qué es este número 11..?. La respuesta es simple. Mentí. Quise escribir sólo 10, pero olvidé contarte acerca de los botones para CW y SSB. Están seteados en la fábrica (mi casa...bah...) para ser muy útiles solamente para mi. Puedes probarlos de todos modos. Si tienes una interfaz para CW, los botones CW enviarán un bello CW, aún si estás haciendo otras cosas, como moviéndote a través de distintas ventanas. Más te vale apreciar esto ya que me costó mucho trabajo codificarlo, y estoy muy orgulloso de ello.

Los botones SSB (los que sólo verás si tu radio está en SSB) son usados para enviar archivos WAV. Mientras esto parece más difícil, en realidad fue bastante más sencillo, pero me daré por satisfecho si logro impresionarte bien. No es necesario conectar tu radio para disfrutar de esta maravilla, solamente conecta un par de parlantes a tu placa de sonido y escucha mi melodiosa voz llamando CQ al presionar el botón CQ. Durante un concurso, en realidad, desearás conectar la salida de la placa de sonido a la entrada de tu micrófono a través de un transformador de audio de Radio Shack y un resistor. La parte de alta impedancia se conecta (con un resistor de serie 100k) a la entrada del mic, la de baja impedancia a la salida de parlante de la placa de sonido. Por supuesto que será necesario ajustar el nivel usando el software que trae tu sistema operativo o el de la placa de sonido.

Esta cosa también grabará los qso´s, pero prefiero que encuentren este tema en el HELP.

Espero que hayan disfrutado esta guía rápida tanto como he disfrutado escribiéndola, y por segunda vez, no estuve bebiendo mientras la escribí.−