

miLog 9.1

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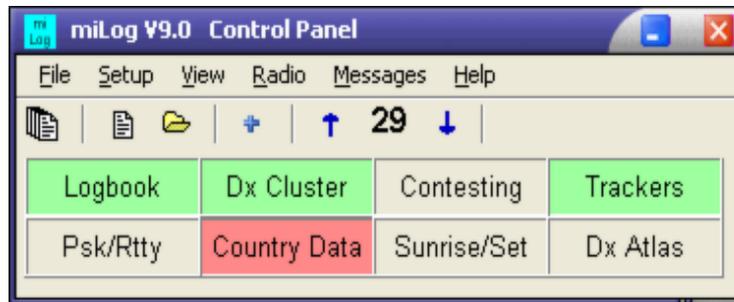
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Getting started

Control Panel

The Control Panel is the main interface to the features and modules of miLog. It is also where you can configure your station options such as your *location* (latitude and longitude), *rotors*, *radios*, *CW keyer* and other station equipment.

The Control Panel provides a unique way to access the various modules of miLog. Simply clicking on the rectangle for the desired module will open that module on your screen. The Control Panel also shows the current status of each module. If a particular module is already open, the button will appear in green and clicking on the green button will bring the module to the front of your desktop. If a module has been minimized, the button will appear in red and the module may be recalled by simply clicking on the red button.

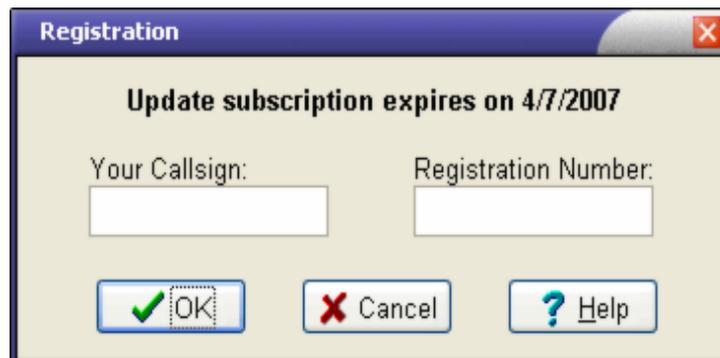


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Registration

Available in: Control Panel

To register your copy of miLog, open the Registration window by selecting *Setup-->Registration* from the menu in the Control Panel window. If you have downloaded miLog from our website and want to run in Demo mode, enter DEMO in the *Your Callsign* field and leave the *Registration Number* field blank. If you have purchased miLog, enter your call in the *Your Callsign* field and your registration number in the *Registration Number* field and click on the *OK* button or press *<Enter>*.

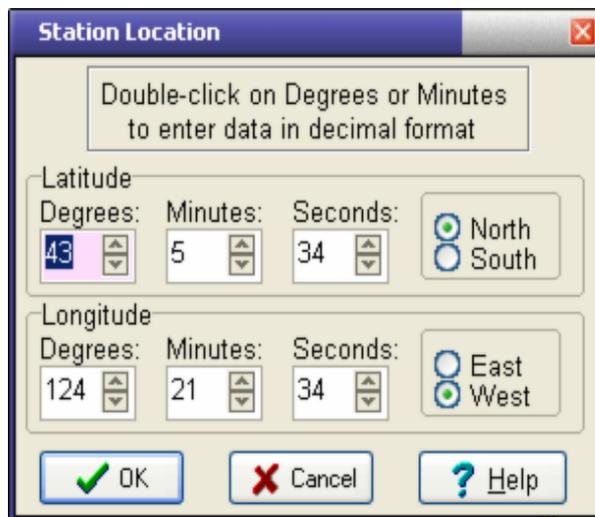


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Station Location

Available in: Control Panel

To configure your station location (coordinates), which are used for calculating antenna heading and distance, open the Station Location window by selecting *Setup-->Station Location* from the menu bar at the top of the Control Panel window. Enter your coordinates in the appropriate fields. If you prefer to enter either the degrees or minutes in decimal form, such as 34.216, simply double-click on the appropriate field and enter the decimal value in the prompt window. For example, if you want to enter 42' 39.45" first enter 42 in the Degrees field, double-click on the Minutes field and enter 39.45. After you have finished entering your coordinates click on the *OK* button or press *<Enter>* to save or update your location or click on the *Cancel* button to abort any changes. Don't forget to select North or South and East or West.



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Auto Create Log and Tracker Files

Available in: Control Panel & Logbook

The Auto Create function is a very handy way to create a new Logbook file along with matching base filenames for all the Trackers. To automatically create a file group, select *File-->Auto Create* on the menu bar in either the Control Panel or Logbook windows. Enter a name for the new files, such as your callsign, when prompted and then you will be asked to confirm the name, drive and directory of each Logbook and Tracker file. This is the preferred method of creating new logs as each log will have matching tracker files. You may consider placing each file group in its own sub-folder to facilitate keeping track of your data.

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Email settings

Available in: Control Panel + Logbook + Dx Cluster

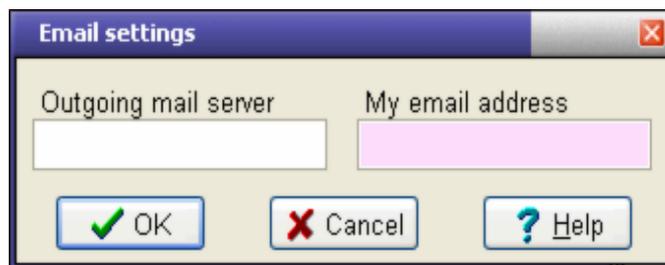
If you plan to use either the Dx Spot Paging or LoTW (Logbook of the World) features of miLog

you must first configure your basic email settings. First open the Email Settings window by clicking on *Setup* -> *Email Settings* on the menu in the *Control Panel*, *Logbook* or *Dx Cluster* windows. After the window appears you will see two data fields which need to be filled in.

The "Outgoing mail server" field is the address of the outgoing (SMTP) mail server at your ISP. Typical names are mail.myisp.com or smtp.myisp.com. If you are not sure of the proper name to enter you can either obtain it from within your email program or by contacting your ISP.

The "My email address" field should be filled in with your email address. It is important that you use your real address since confirmation of data uploaded to LoTW will be sent to this address.

Click on *OK* or press *<Enter>* after you have filled in the required data or on *<Cancel>* or press *<Esc>* to abort any changes.



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Address Database Configuration

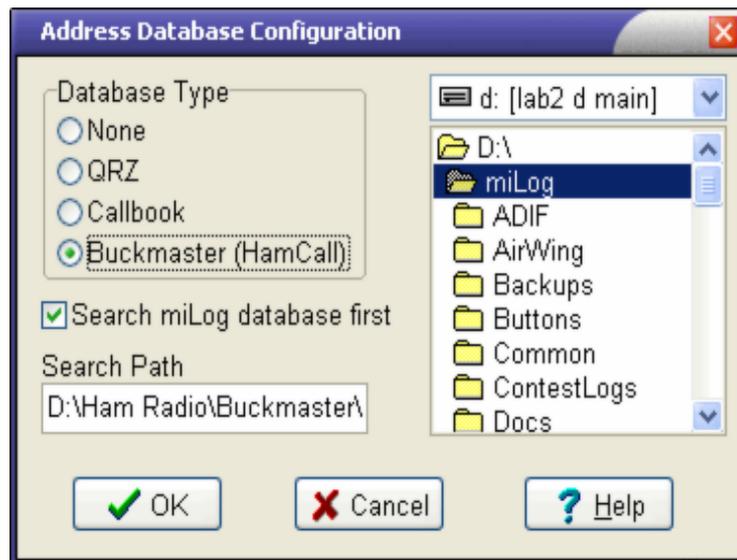
Available in: Control Panel + Logbook + QSLing

miLog supports three third party address databases in addition to it's own internal FCC database. These are Buckmaster Hamcall, Callbook and QRZ. miLog does not support any online address databases but does include a feature to lookup a callsign on QRZ.COM. To configure your database utility, open the Address Lookup Configuration window by selecting *Setup* -> *Address Database* from the menu in the *Control Panel*, *Logbook* or *QSLing* windows. First, select the type of database you are using and then, using the file controls on the right side of the window, select the drive and directory of the database. If you wish to first search the internal FCC database. check the box for *Search miLog databox first*. If the call is found in the internal database, this data will be returned. If the call is not found, the selected external database will be searched. The internal database is updated monthly and is available on the website at www.milog.com.

After the correct path or location has been entered, click on *OK* or press *<Enter>* to save your selections or on click on *Cancel* or press *<Esc>* to abort any changes.

NOTES: If you manually type in the path it must have a backslash ("\") at the end. If you are using the QRZ database, it must be installed in the root of a drive. For example, C:\Callbk. A location such as C:\QRZ\Callbk will not work. This is a limitation of the drivers supplied by QRZ.

Also see *Lookup Address*



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miLog Options

Available in: Control Panel

The miLog Options window is where you set options that affect many of the modules of miLog. Open this window by selecting *Setup-->Options* from the menu bar in the *Control Panel* window.

Window Stretching

The Window Stretching option is used mainly to disable stretching of the Logbook and Contest windows to prevent conflicts with drivers for a small number of video cards (mostly ATI). If you are unable to see some of the controls in these windows, disable stretching and restart the program.

Entry Field Highlighting

The Entry Field Highlight Color is used to the highlight color of the active controls when entering data or selecting options. This provides a good visual indicator of the active control. Since the control text is black, it is recommended that you choose a light color, preferably from the custom color palette. If you do not want to highlight the active controls, be sure the Do Highlighting box is unchecked. Since they have there own highlighting colors, this control highlighting does not apply to the contest modules.

Date Format

The Date Format option is used to set the date format in the *Logbook*, *Contesting* and *QSLing* modules and may be set to suit your preferences.

Dual Monitors

If you use dual monitors, enabling the Dual Monitor Support feature will allow miLog to remember each windows position on each monitor. Disable this feature if you only have one monitor. If this option is disabled, all windows will be restored to the primary monitor when miLog is started.

Keep on Top

To prevent the *Control Panel* from being covered by other windows, check the Enabled box under the Keep Control Panel on top option.

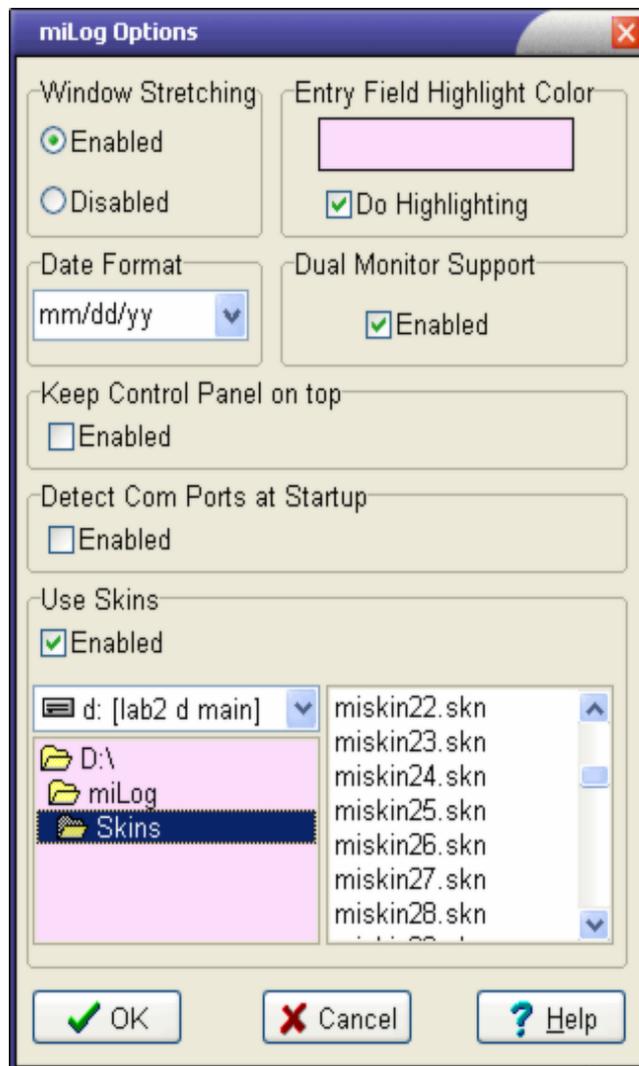
Detect Com Ports at Startup

When enabled, miLog will scan COM1 to COM8 to determine if the port is installed or in use by another program. This information is displayed in the *Port Assignments* window. This feature may cause an error message to appear in some versions of Windows when starting miLog.

Skins

If you are running Windows 2000 or XP, you have the ability to "skin" all the program windows. There are many different color schemes (skins) available and you should find one to suit your personal preference. For example, the window below is shown with skin 19. To enable skins, check the *<Enabled>* box and select the desired skin from the list. The skins are located in the Skin directory in your miLog program directory. Double-clicking on a skin file will immediately apply the new color scheme.

NOTE: The skin feature may not be available or visible if you are running Windows 95, 98 or ME and if you are using windows NT4 you will need to be current to at least service pack 6A.



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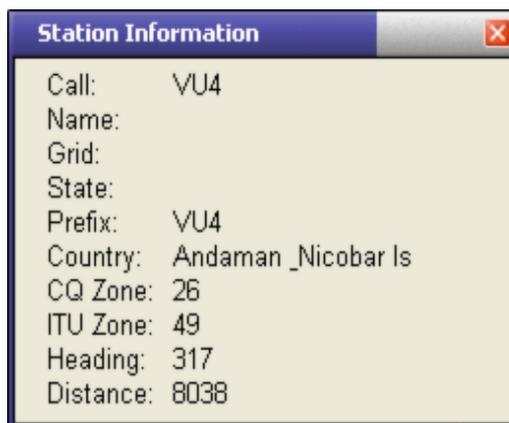
Lookup Country/Grid Info

Available in: All windows

The Lookup Country Info function is a handy way to get a snapshot of data pertaining to a country or grid square. If you enter a call or prefix, the country name, zones, heading and distance will be shown. If you enter a US call and have installed one of the supported database programs such as Buckmaster Hamcall, the name, grid and state of the station will be shown. If you enter a grid square, the heading and distance to the center of that grid will be shown. The Station Information window will also be updated when you look up the address of a station using one of the address databases.

This utility can be access via menu option or by pressing <F6> from within any module except the contest modules.

NOTE: If a country contains two or more zones the displayed zone number will be 0 since the correct zone cannot be determined.



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Address Lookup

Available in: All windows

If you have installed one of the supported address databases, you can use the Address Lookup feature to view a station's address. Just enter the station's call and press <Enter> or click on *OK* to view the address data. If the call is in the database, the address data will be shown. This utility is most used to view the QTH of a station or when addressing QSLs by hand. The QSLing feature of miLog automatically does an automatic address lookup for each QSL card or label being printed.

This utility can be access by menu option or by pressing <F2> from within any module except for the contest modules.



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Radio options

Available in: Control Panel + Radio Display

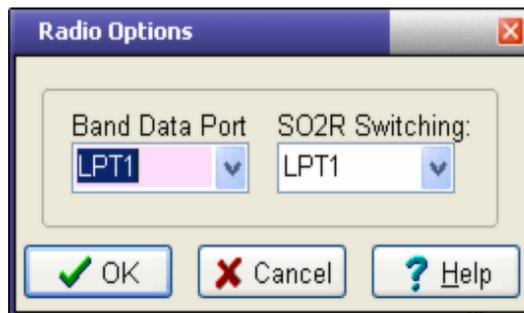
If you want miLog to output band data on one of the LPT (parallel) ports, open the Radio Options window by selecting *Setup-->Radio Options* from the menu in the *Control Panel* window or by selecting *Edit-->Radio Options* from the menu bar in the Radio Display window.

Band data is output as a 4-bit binary code and follows the same format as Yaesu radios and most of the popular DOS contest programs.

If you do not want band data to be available on an LPT port, set the Band Data Port to Disable otherwise set it to the desired port.

The SO2R Switching selection controls which port supplies the signal to switch your SO2R controller between radios. If you are not using an SO2R controller, set this option to Disable otherwise set it to the port to which the controller is connected.

Click on *OK* or press *<Enter>* to accept the settings or click on *Cancel* or press *<Esc>* to abort any changes.



Pin connections and data format for Band Data:

Band data format
BAND DCBA

160M	0001
80M	0010
40M	0011
30M	0100
20M	0101
17M	0110
15M	0111

LPT Port connections

	Radio 1	Radio 2
Bit A	Pin 2	Pin 3
Bit B	Pin 7	Pin 4
Bit C	Pin 8	Pin 5
Bit D	Pin 9	Pin 6

12M 1000
10M 1001

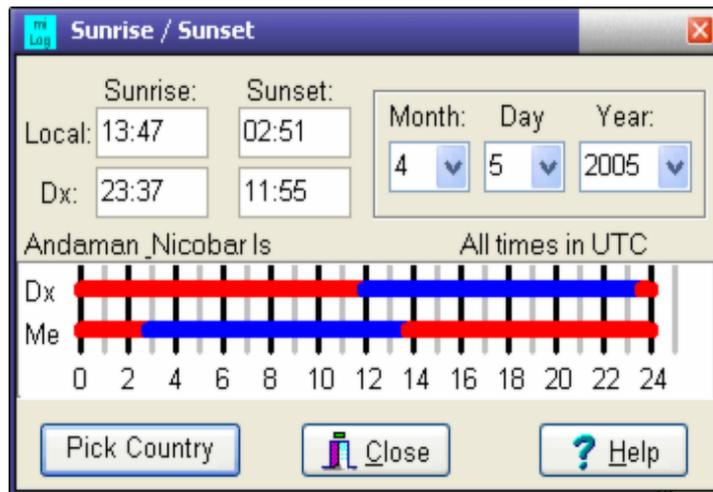
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Sunrise / Sunset

Available in: All major windows

The Sunrise / Sunset window is used to calculate the sunrise and sunset times for your Qth and a country of your choice. Open this window by clicking on the *Sunrise/Set Panel* in the *Control Panel* or by selecting *View-->Sunrise/Sunset* from the menu bar in most of the major windows. When the window is displayed, it shows your local sunrise and sunset times. To display the times for another location, click the *Pick Country* button and select the country of your choice. The times for that country will be displayed in text as well as a graphical display to easily see the overlapping periods of daylight and darkness. Click the *Close* button to close the window.

NOTE: All times shown are in UTC



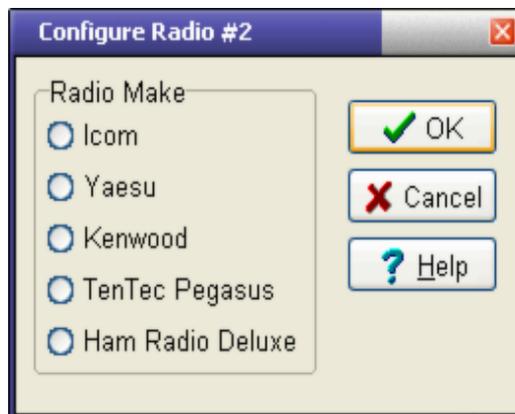
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Station control

Radio Configuration

Available in: Control Panel

miLog supports control of one or two radios. If you have previously installed a radio, you must first remove that radio by selecting *Setup-->Remove Radio #1* or *Setup-->Remove Radio #2* on the menu bar in the *Control Panel*. To configure your radio, select *Setup-->Radio #1* or *Setup-->Radio #2* from the menu bar in the *Control Panel* and a window will appear prompting you for the make of the radio. After making your selection, click the *OK* button and the configuration window for that make will appear. Refer to the sections below for instructions for your type of radio.



ALL RADIOS

For all types of radios except Pegasus and Ham Radio Deluxe, you need to select the port to which the radio is connected and the baud rate used by your radio. If you are using the *Shack-LAN Radio Interface*, instead of selecting a COM port and baud rate, you will need to select Shack-LAN as the port and then select the unit number of the interface. Baud rate selection for the radio interface is done in the Shack-LAN Radio Interface configuration window.

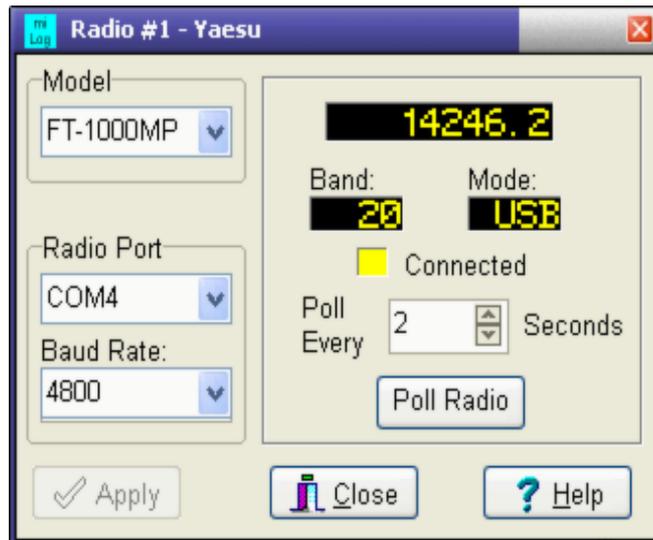
You might also want to change how often miLog polls your radio. The default interval is every 2 seconds but you can set the interval between 1 and 10 seconds.

The Radio Configuration window also has an LED indicator that shows the status of communications to your radio. If the LED is red, no response has been received from your radio for the last 10 polling attempts. A yellow LED indicates that the radio has been polled but no data has been received yet and a green LED indicates all is well.

Clicking on the Poll Radio button forces an immediate poll of the radio.

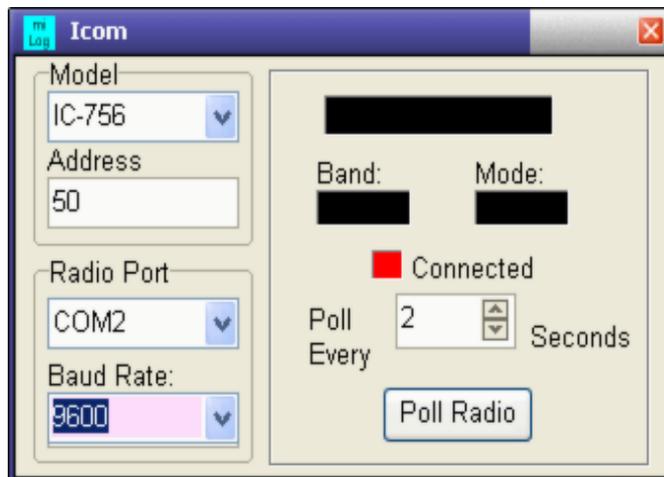
Yaesu

First select your radio model from the list and then select the port to which the radio is connected. Finally, select the proper baud rate for your radio. Refer to your radio manual for the correct baud rate. The Shack-LAN option also requires you to select the unit ID of the Shack-LAN Radio interface. At this point you should see the current frequency and mode show in the window. After everything is communication properly, click on *Apply* to save your data.



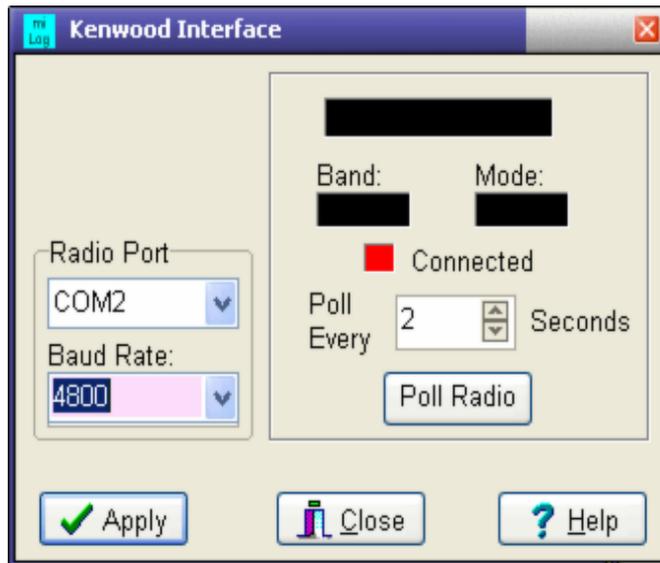
Icom

First select your radio model from the list and the default address for the model will appear in the Address field. If your model is not in the list, simply select any model and enter the appropriate address for your radio. All Icom radios use the same communications protocol with only the address byte being different. Next select the port to which your radio is connected and then the proper baud rate. Refer to your radio manual for the proper address and baud rate information. If you are using the Shack-LAN Radio Interface, you will need to set the Unit ID of the Radio Interface unit. At this point you should see the current frequency and mode show in the window. After everything is communication properly, click on *Apply* to save your data.



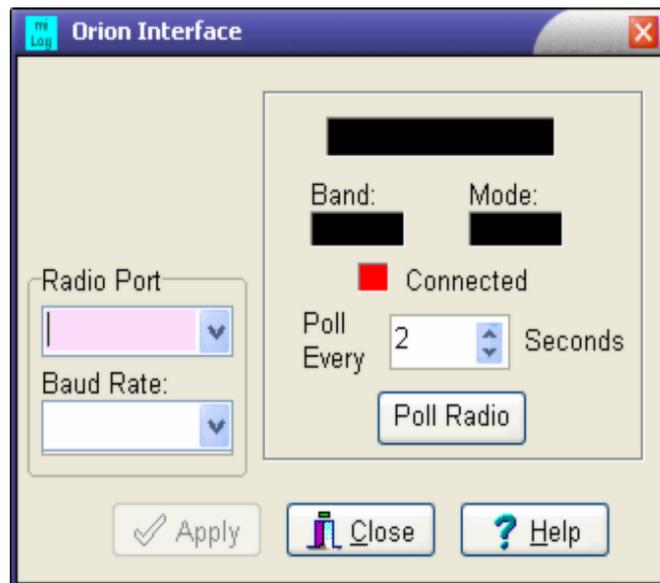
Kenwood

All current Kenwood models use the same communications protocol so there is no need to select a model. You need only select the port to which the radio is connected and the proper baud rate. Refer to your radio manual for the proper baud rate. If you are using the Shack-LAN Radio Interface, you will need to set the Unit ID of the Radio Interface unit. At this point you should see the current frequency and mode show in the window. After everything is communication properly, click on *Apply* to save your data.



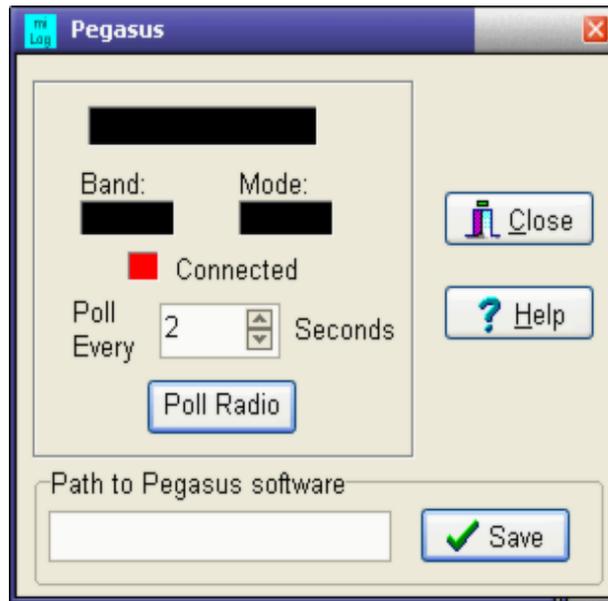
TenTec Orion

The only things to configure for the TenTec Orion are the port and baud rate. The factory default baud rate is set to 57600. Click on *Apply* to save your data.



TenTec Pegasus

The only thing to configure for the TenTec Pegasus is the path to the directory or folder containing the Pegasus software. If you have entered the proper directory, the proper data should be displayed in the window. After everything is communication properly, click on *Apply* to save your data.



Ham Radio Deluxe

There are no configuration settings required to interface to Ham Radio Deluxe but it is mandatory that Ham Radio Deluxe is running before you start miLog or attempt to configure a radio to interface to it.

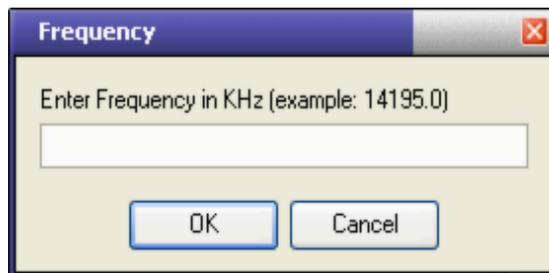
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Radio Functions

Available in: Most windows

Setting the Radio Frequency

To set the current radio's frequency, select *Radio-->Enter Frequency* from the menu bar or press *<Ctrl-F>*. After the Frequency window appears, enter the frequency, in KHz, and then press *<Enter>* or click on the *<OK>* button to set the radio or press *<Esc>* or click on the *<Cancel>* to abort the operation. The mode to use will be determined by the frequency and the settings in the *Sub-Band* module. You can view or change these settings by selecting *Edit-->Sub-Band Limits* from the menu bar in the Radio Display or *Dx Cluster* windows.



Setting Radio Frequency On-the-Fly

You can directly enter a radio frequency in the Callsign fields in the *Logbook* and *Contest* modules. After entering the frequency, in KHz, press *<Enter>* and the radio will go to the desired frequency with the mode determined by the frequency and the setting in the *Sub-Band*

module.

Setting the Current Radio

To set the current radio to Radio #1, select *Radio-->Select Radio #1* from the menu bar or press *<Ctrl-F1>*. To set Radio #2 as the current radio, select *Radio-->Select Radio #2* from the menu bar or press *<Ctrl-F2>*. You can also toggle between the two radios by selecting *Radio-->Toggle Radios* or press *<Ins>* (Insert).

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CW Keyer & PTT Control Configuration

Available in: Control Panel + Logbook + Contests + Psk + Rtty

miLog supports two type of keyers. One is the internal keyer where all CW is generated by miLog and keying and PTT outputs are available on either COM or LPT ports and paddle inputs are available on the LPT ports. Also, CW keying outputs can be set to the same COM port as your radio **as long as the radio does not require handshaking control (such as Kenwood and TenTec Orion)**. To use the internal keyer, select Direct under CW Method options and the desired port under Keyer Setup options. If you do not want any CW operation, select the Disable option for both radios.

When using the internal keyer, miLog has support for keying two separate radios. The keying port for Radio #1 is set with Keying Port #1 and the port for Radio #2 is set with Keying Port #2. Keying and PTT outputs are routed to the currently selected radio. This switching is real-time and can be switched between radios in mid-stream. NOTE: Neither keyer port needs to be the same as the paddle port. The paddles can be on LPT1 and keying can be done on two different COM ports if you so desire. If you select a COM port that is either a USB-->Serial Adaptor or on a PCI card you may need to set the address for these ports. This is required because the internal CW Keyer runs as separate task and in order to preserve accurate timing does not control the port via the main program.

To use your paddles with miLog, the Paddle port should be set to LPT1 or LPT2.

NOTE: If miLog is configured to automatically switch your SO2R control box, paddles must be connected to the switch box instead of directly to the LPT port or they may not operate correctly.

miLog also has full support for the external Hamation Serial Keyer. Using this external keyer preserves all the features and convenience of the internal keyer while eliminating all of the timing problems associated with Windows on some computers. It can operate as a stand-alone keyer with speed adjusted on the keyer or, if used with miLog, speed control and weighting are controlled from the keyboard just like the internal keyer. To configure the Serial Keyer, select Serial Keyer under CW Method options and the desired COM port under Keyer Setup options.

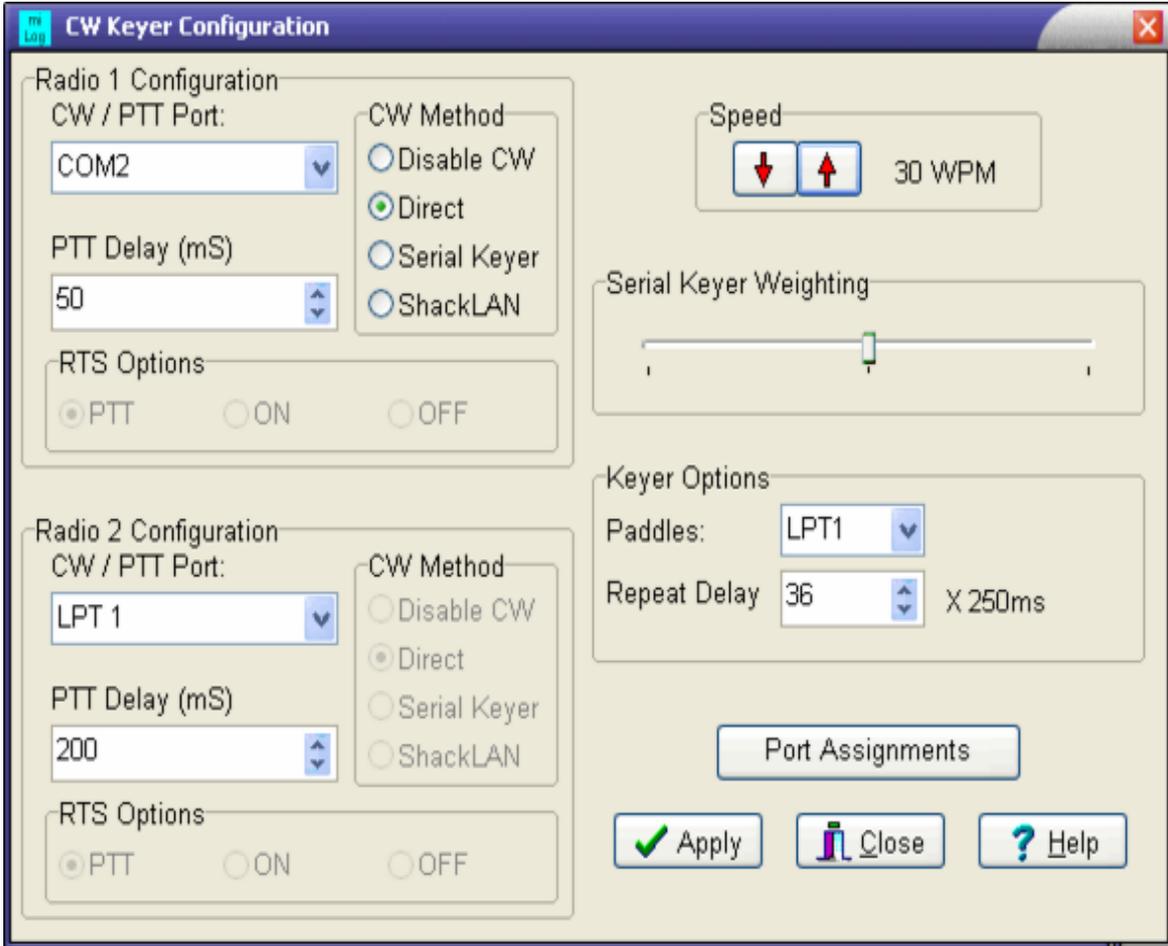
NOTE: Weighting is only available in the Serial Keyer and not the internal keyer.

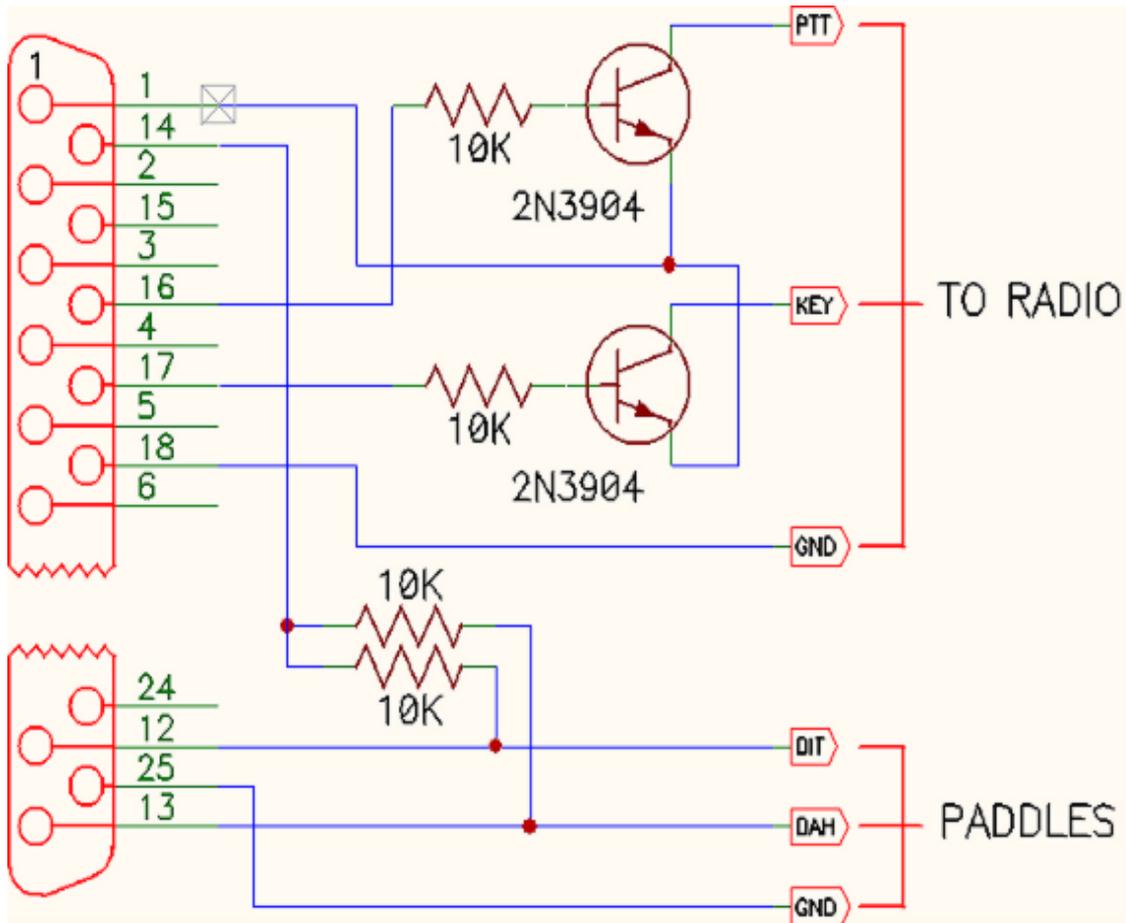
Both the internal and external keyers provide a PTT output. The delay between asserting the PTT signal and the start of a CW message can be set from 0 to .25 seconds. This is very useful in preventing hot switching amplifier relays and more importantly, eliminates clipping the first character of a message.

Also, the miLog CW keying system provides for automatically repeating a message after a user selected delay. The repeat system supports both the internal and external keyers The

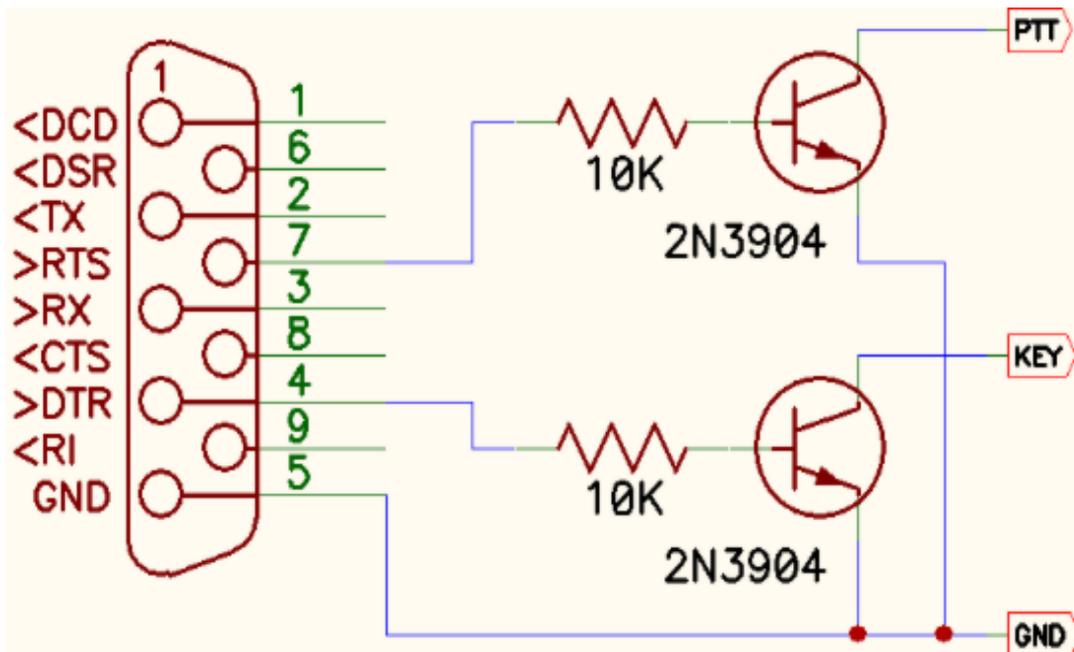
desired delay is set in the Repeat Delay box and is in intervals of 250mS, ie, the number of seconds X 4. For example. for a delay of 2.5 seconds, enter a value of 10.

If you are not using the PTT outputs, miLog gives you the ability to set the state of the RTS pin on the keyer COM port. This is primarily used when powering a radio level translator circuit from the voltage on the RTS pin. To set the RTS pin positive, set the RTS Option to *ON*. Set the RTS Option to *OFF* to set the RTS pin negative.





Sample circuit for parallel (LPT) port keying



Sample circuit for serial (COM) port keying

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General CW & Voice Messages

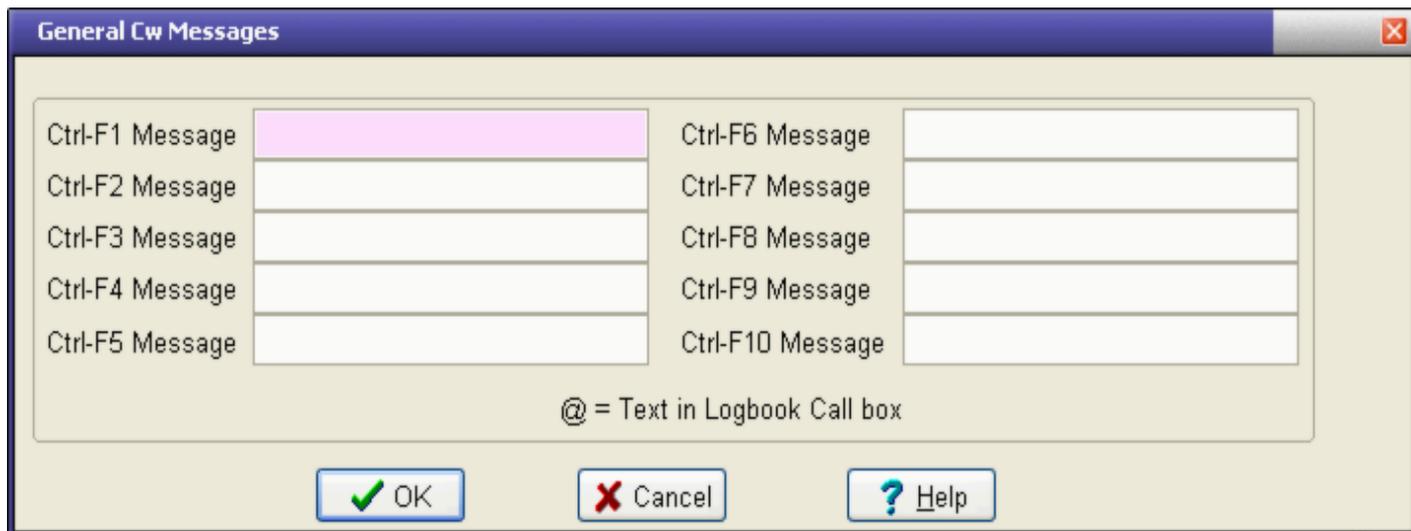
Available in: Control Panel + Logbook

miLog has 10 CW message memories and 10 Voice message memories that can be used for everyday use. Please note that these 10 memories are separate from those in the contest modules and the macros in the PSK and RTTY modules. Select *Messages-->General CW Messages* in the *Control Panel* or *Logbook* windows to program the CW messages or *Messages-->Record Voice Message* to set the voice messages. CW messages can be sent by pressing *<Ctrl-F1>* for message #1 through *<Ctrl-F10>* for message #10 or by selecting *Messages-->Send Cw Message #x* from the menu bar. To send a voice message, press *<Shift-Ctrl-F1>* through *<Shift-Ctrl-F10>* for voice messages 1 to 10 or select *Messages-->Send Voice Message #x* from the menu.

These messages may contain the macro character @ which, if the message is sent while in the Logbook window, will insert the callsign currently entered in the Logbooks Call/Freq/Head field. No call will be inserted if the message is sent from any other window.

CW keying speed can be changed by pressing *<Shift-F7>* to decrease the speed and *<Shift-F8>* to increase the speed. Both CW and voice messages can be aborted by pressing *<F9>*.

See *CW Keyer Setup* for information on configuring and interfacing the CW Keying interface.



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Rotor configuration

Available in: Control Panel

The Rotor Setup window is used to configure rotors you want to control from within miLog. Unlike most logging programs that support one or possibly two rotors, miLog supports up to eight rotors which can be mapped to one or more bands and each band can contain more than one rotor. Open the rotor configuration window by selecting *Setup* -> *Rotors* from the *Control Panel* menu bar.

Configuring your rotors is a two-step process. First you configure the rotor ports then assign bands to the rotors. Listed below are the steps to take to configure each rotor:

- 1 - Select the rotor number you wish to configure.
- 2 - Select the type of rotor from the drop-down list.
- 3 - Give a name to the rotor in the Rotor Name field.
- 4 - Set the communications parameters which apply to the port to which this rotor is connected.
- 5 - If your rotor is connected to your computer, you should now see the current heading on the right side of the window.
- 6 - If any antennas turned by this rotor are offset, select the band and then the degree of offset.
- 7 - Click the Save button to save your configuration for this rotor.
- 8 - Repeat the above 4 steps for each rotor you wish to configure.

After all rotors have been configured you now assign bands to rotors using the following procedure:

- 1 - Select the band to be mapped from the Band drop-down list. Start with 160 even if no rotor is used for that band.
- 2 - Select the rotors available for the selected band by pressing the buttons under the Rotors heading. These buttons can be pressed or unpressed by clicking in them. If no rotor is available for the selected band, be sure no buttons are down.
- 3 - Repeat the above 2 steps for each band, working your way up from 160 to VHF.

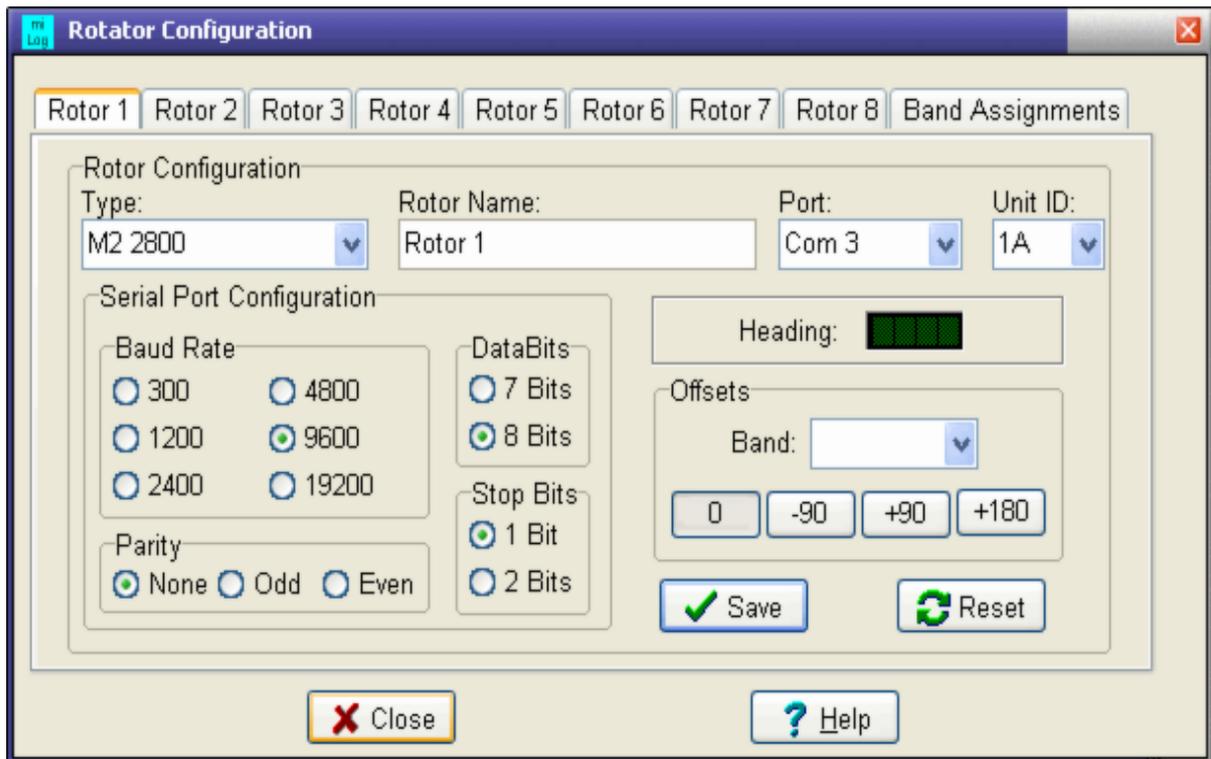
When all rotors have been configured and all bands assigned, click on the *<OK>* button to save your changes or click on the *<Cancel>* button to abort any changes.

After setting your rotor types, ports and names, you are ready to map bands to rotors. Start by clicking on the *Band Assignments* tab. To map a band, select the band and depress the

button for each rotor turning an antenna for that band. If an antenna for a certain band is not rotatable or is turned by a rotor that is not remote controlled, be sure none of the buttons are depressed..

HINT: If you have more than one rotatable antenna for a band, be sure to make the rotors for your primary antennas the first ones in the list.

Rotors supported include the Hamation interface for the Ham-2/3/4/T2X, the Prosisel (BigBoy) "C Box" , Hy-Gain DCU-1 , M2 2800 Orion, Sartek, Yaesu, TicRing and other controllers using one of the above protocols, such as RotorEZ, are supported.



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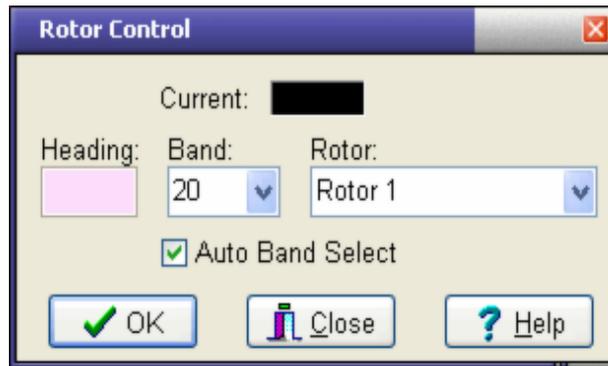
Rotor Control

Available in: Most windows

The Rotor Control functions are used to send commands to a computer controllable antenna rotor. Rotors may be commanded using three different methods. The Rotor Control window also displays the heading of the current rotor for the band selected.

MANUAL

The Manual mode is selected by pressing *<Shift-F11>* in the Logbook or Contest modules. Simply select the band and heading, the desired rotor (if you have more than one rotor for the selected band) and either press *<Enter>* or click the *<OK>* button. The command will be sent to the rotor assigned to the selected band in the *Rotor Setup* window.



AUTO

The Auto mode will use the heading shown in the Station Information window and will automatically turn the rotor assigned to your current band by pressing *<F11>* when you are in the Logbook or Contest modules. If there is more than one rotor assigned to that band, the command will be sent to the last rotor used. If you wish to change the current rotor for your current band, you must use the Manual function *<Shift-F11>*.

The data in the Station Information window can be updated by using F2 to lookup a call in an address database, F6 to lookup country or grid information or by entering a call in the Logbook and Contest modules. You can also right-click on an announcement in the Dx Monitor and select Rotate Antenna.

ON-THE-FLY

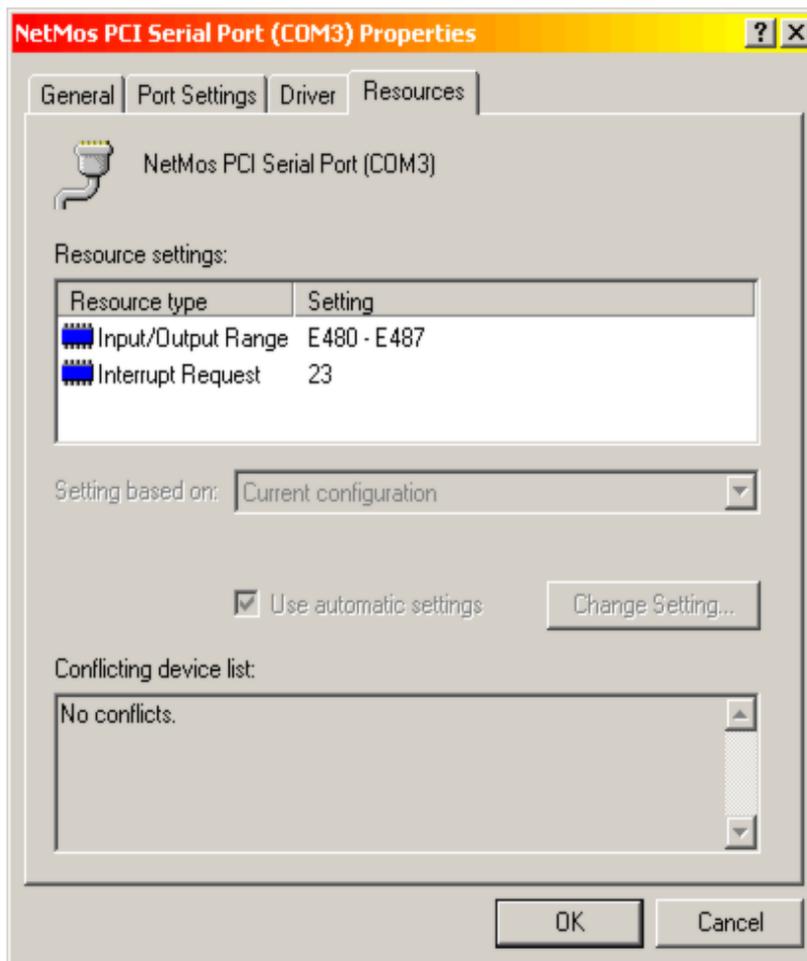
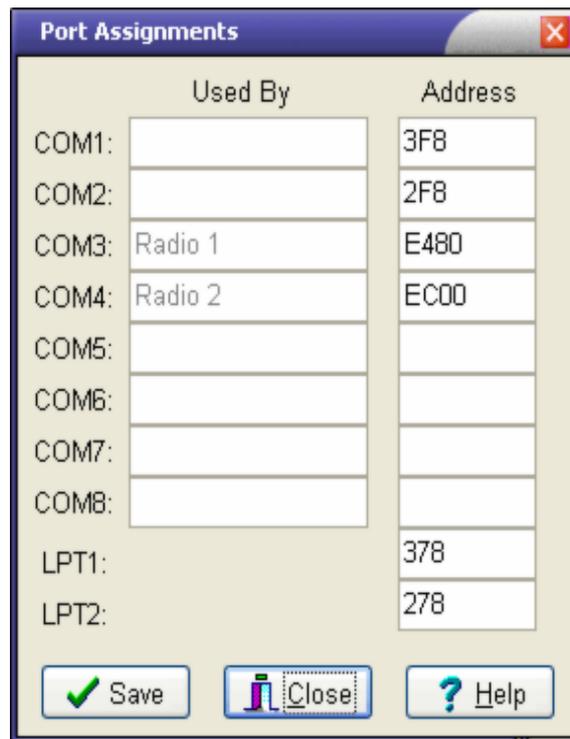
The On-the-Fly mode allows you to enter the desired antenna heading in the callsign entry field in the Logbook window or any of the contest windows. The rotor assigned to the current band will be commanded to rotate to the new heading. If there is more than one rotor assigned to that band, the command will be sent to the last rotor used. If you wish to change the current rotor for your current band, you must use the Manual function. In the Logbook, you must press *<Tab>* or *<Enter>* after entering the new heading. In the contest modules, you can press either *<Tab>*, *<Spacebar>* or *<Enter>*.

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Port Assignments

This is a utility that can be useful in solving conflicts when assigning Com ports to various functions in the miLog system. It is also where you enter the port addresses for PCI serial cards used by the internal CW Keyer. It lists which device is assigned to each port or if the port is in use by a separate application.

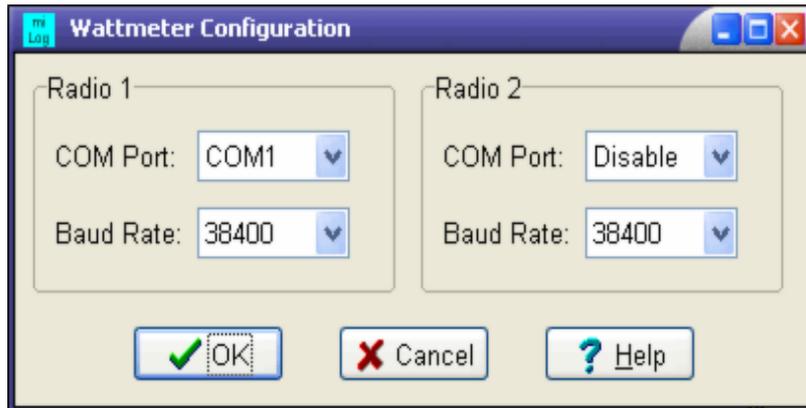
If you have installed a PCI serial adaptor card or a USB-->Serial Adaptor, the ports may not be at standard addresses. The internal Cw keyer runs in a separate task from the main program and cannot access the ports in the main program, therefore it is necessary to manually enter the port addresses so the keyer task can find them. You can obtain these addresses by opening the Windows Device Manager and then selecting Properties and then Resources for each port on the PCI card. Use the value shown for Input/Output Range. Shown below is a typical port properties window.



Wattmeters

miLog has built-in support for two WX0B Power Master digital wattmeters. The power from the wattmeter is displayed realtime in a bar graph and peak power is shown in text format. SWR is also shown in text format. These display are available in the Radio Control and Contest windows.

To configure the wattmeters, select Setup-->Wattmeters from the menu bar in the Control Panel or Radio Control windows. Select the desired COM port and baud rate and click on OK to apply the new settings.



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Country Data

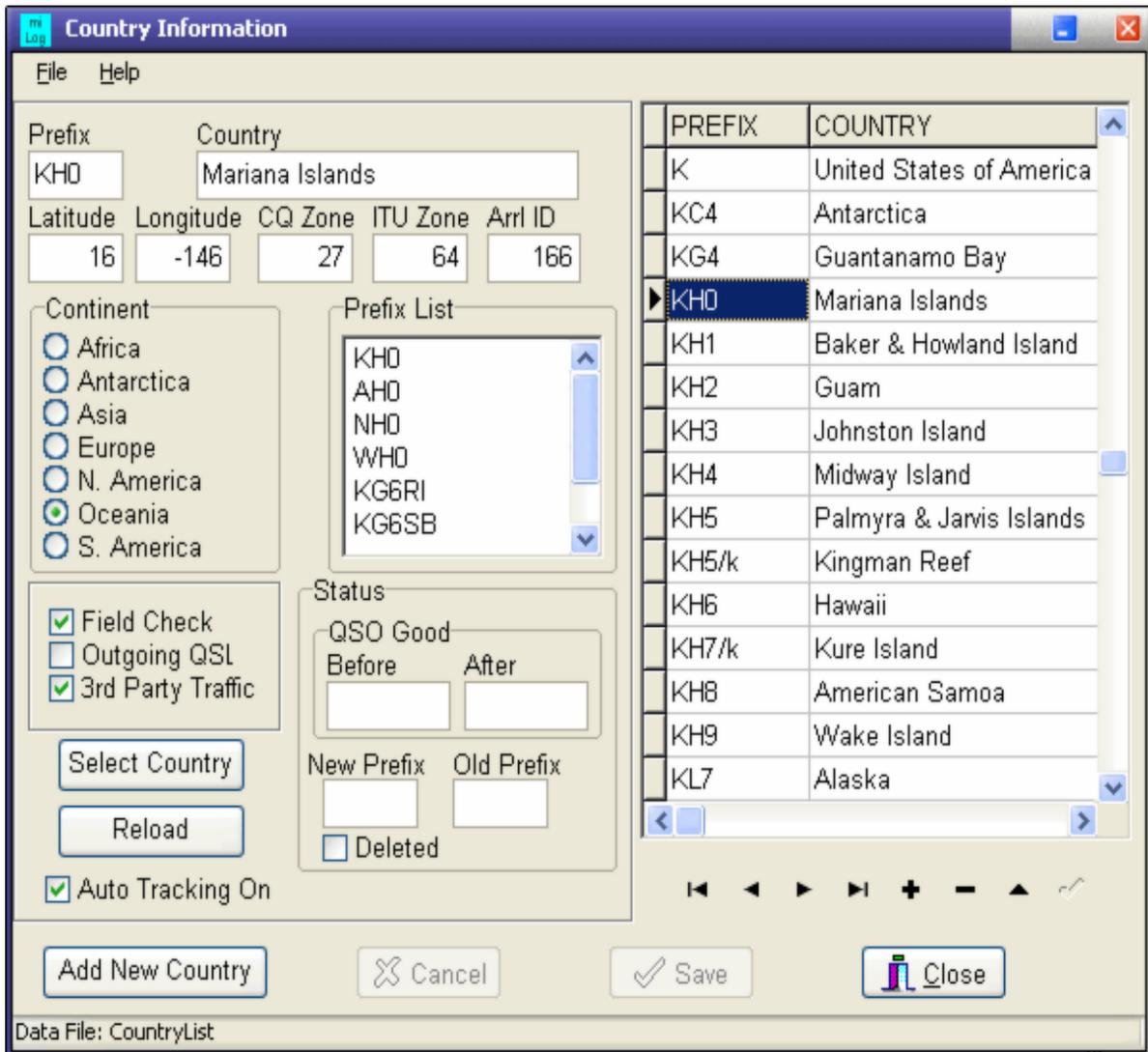
Country Data

The Country Information window is where you manage all data relating to DXCC countries, such as coordinates for beam headings, zones, prefixes, etc.

To change any of the data, simply type in the desired changes and then click on the OK button. To cancel any changes you have type in, click the *Cancel* button or press <Esc>. If you want to add a new prefix for a country, select the country, add the new prefixes in the Prefix List box and click *Save* when finished.

To add a new country, first click on the *Add New Country* button and then enter the data for the new country. If you neglect to enter the coordinates of the new country, you may get an error message when asking for the beam headings to that county.

If a country becomes "Deleted", simply remove all entries from the prefix list so no callsigns will be allocated to that country. Since deleted countries still count for DXCC credit, deleted contries are not removed from the list. If you enter a qso in your logbook for a deleted country and the wrong country is derived from the callsign. you can manually select the deleted country name.



Logbook

Creating a New Log File

Available in: Control Panel + Logbook

Toolbar shortcut icon

There are two ways to create a new log file. If you wish to create a new log along with tracker files with matching filenames, use the *Auto Create* function. If you wish to just create a new log file, select *File -> New* from the menu bar in the Logbook window or click on the New File icon on the tool bar at the top of the Logbook window. You will be prompted for a name for the new log. After entering a name for the log file you will be prompted for the drive and folder (directory) in which to create the file. If a file already exists with the same name, you will be prompted whether or not you wish to overwrite the existing file. The text "LOGxx_" , where "xx" is the log database version, is automatically added to the front of the filename. For example, you might use your call for the filename or, if you operate VHF/UHF from different grids, you might use the grid you operated from as the log name.



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Opening an Existing Log File

Available in: Control Panel + Logbook

Toolbar shortcut icon

To open an existing log file, select *File -> Open* from the menu bar in the Logbook window or click on the File Open icon on the toolbar. When the Open File window appears, select the desired file and then click on the *Open* button. miLog will remember the current log selection and will automatically load this log the next time you run the program.

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Merging Log Files

Available in: Logbook

The Merge Log Files function is used to merge QSOs from a specified log file with the log file open in the current log frame. The log to wish to merge from must be open in another log frame. To merge two log files, select *File -> Merge* from the menu bar in the Logbook window.

When prompted, select the log file from which QSO data is to be read. After a log file has been selected you will be asked to confirm the operation since it cannot be undone once logs are merged. To abort the operation click on the *Cancel* button or press <Esc> when asked for a log file or click on the *No* button when asked if you want to continue. Since the merge operation does not automatically update the Tracker files, you will be asked if you want to update the tracker files when the merging operation is complete.

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Handling ADIF Files

Available in: Logbook

Importing

To import an ADIF file, select *File-->Import ADIF* from the Logbook menu bar. After selecting the file to import, a new Logbook will be created in logbook frame 6 with the same name as the ADIF file. If you wish to add the imported data into another log file you will need to run the merge function after importing the ADIF file. This two step process allows you to review the imported data before adding it to your main log file. If the ADIF file contains special fields such as 10-10 and Fists numbers and you want to import this data, you should first configure the *custom ADIF fields*.

NOTE: Your ADIF file **must** contain the DXCC field for each Qso in order for the proper country information to be assigned to that Qso. It has been found that ADIF files exported by some logging programs do not contain this data. miLog does have a function to assign the DXCC number to each Qso in a Log file according the prefix of the callsign, but you can expect some errors due to prefix changes in years past, notably the Russian prefixes. See *Determine Country from Callsign*.

Exporting

To export your log data to an ADIF file which can then be imported into other applications supporting ADIF files, click on *File-->Export ADIF* on the menu bar in the logbook window. If you want to export only a portion of your log, you can first do a search on the log to show the desired qsos then create the ADIF file before clearing the search filters. If you have data in the user text fields and want the data to be exported in your ADIF file you must first configure the *custom ADIF fields*. An ADIF file is created with the same filename as your log file but with the extension .ADI. After the file is created it is displayed in a viewer window where you can view and/or change the data. Click *Close* to close the window or click *Save* to save any changes you may have made.

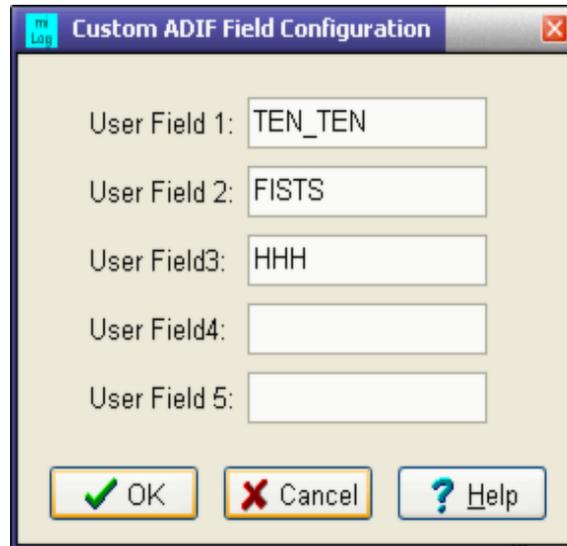
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Custom ADIF fields

Available in: Control Panel + Logbook

miLog gives you the ability to map the five User text fields in the Logbook to custom fields for *importing and exporting ADIF files*. To configure these custom ADIF fields, select *Setup-->Custom ADIF Fields* from the menu bar in the *Control Panel* or *Logbook* windows. In

the configuration window you will see five text entry boxes into which you enter the ADIF field name, without the "<>". For example, if an ADIF file you wish to import has fields for 10-10 and Fists numbers, enter "TEN_TEN" in one of the boxes and "FISTS" in another. Now, when importing an ADIF file the data in the fields with the entered name will be imported into the appropriate User field. These custom fields will also appear in any ADIF file you export from miLog.



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Backing up and Restoring Logs

Available in: Logbook + Contests

The Backup and Restore functions available in the Logbook and Contest modules allow you to backup your log files and restore them at a later date. To create a backup, select *File-->Backup* on the menu bar in the Logbook or Contest windows. You will then be asked to confirm the name of the backup file. The default name is the name of the log file with the new extension of .LBU for logbook backup files and .CBU for contest backup files. Although you may choose to rename the files from the default name, it is highly advisable that you do not change the file extension since it is used by the Restore feature to locate your backup files.

To restore a previously backed up log or contest file, select *File-->Restore* from the menu and choose the backup file you wish to restore from. Note that contest backup files can only be restored from the appropriate contest module.

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Printing Logs

Available in: Logbook

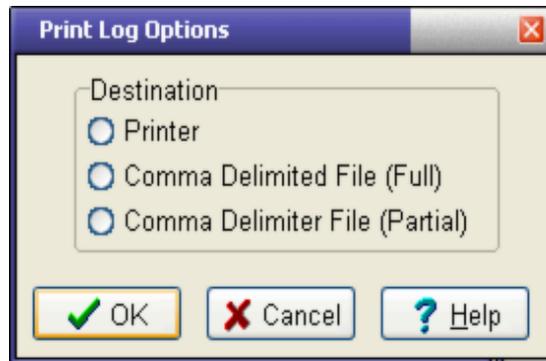


Toolbar shortcut icon

miLog has the ability to print log sheets. To print your logs, select *File-->Print* from the menu bar in the Logbook window or click on the toolbar icon. You will then be asked to choose the type of output. If you want to print to a printer, choose the Printer option.

If outputting to your printer, select Printer and click the *OK* button. A Print Preview window will now appear. The preview window can be enlarged by increase the zoom factor at the top of the page or by maximizing the window. If you wish to go ahead with printing, click on the printer icon in the upper left of the preview window. If you wish to cancel the print job, click on the *Close* button at the top of the window. Only the primary data fields will be printed in order to make the pages easily readable.

The Comma Delimited options create a text file with commas between the fields. This file can then be loaded into many of the popular spreadsheet programs to allow you to manipulate the data in any way you choose. The Full option includes all log fields while the Partial option only includes a subset of the fields. After the file has been generated, it will be shown in an editor window. The default filename is the name of the log file with the extension changed to .TXT. If you wish to save the file under a different filename, select *File -> Save As* from the menu bar in the editor window. After the file has been saved, click the *Close* button to close the editor window.



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Updating the Trackers

Available in: Logbook + Trackers

There are two functions available in the Logbook module for updating the trackers. Both of these functions will update all trackers from qso data in the currently selected log frame. To update existing tracker data, use the *File -> Update All Trackers* function. If you want to reset all tracker data before updating the trackers, use the *File -> Reset & Update All Trackers* function. These functions are located on the Logbook menu bar.

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New Band/Modes

Available in: Logbook

miLog has a great feature for the Dx'er that tracks new band/modes for each country. This makes generating QSL labels or cards for "new one" a snap. Each qso is checked to see if it is a new band/mode when you are entering and editing qsos and also when merging logs. This field may also be used when searching your logs.

Resetting the Band/Modes data

You may also clear the band/mode status of all qsos and re-scan the log to mark the new ones by selecting File--Reset Band/Modes from the menu bar. This operation will reset the data in the Dx Tracker and scan your entire log to update the Dx Tracker and mark the new band /modes.

Generating QSLs for the new Band/Mode qsos

miLog makes it very easy to generate QSL labels or cards for qsos that are new band/modes. To do this, select QSLing-->New Band/Modes from the menu bar and all qsos marked as New Band/Mode that are not marked as the QSL having been sent will be automatically added to the QSL list in the QSLing window. Also, as each qso is added to the QSL list it will be marked as having the QSL sent.

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Setting the Custom Log Options Configuration

Available in: Logbook

This is one of the unique features of the Logbook module in miLog. It allows you to place your own custom named fields in your log. In addition to giving you fields to store custom data, these fields can be applied to searches of your log. Open the configuration window by selecting *Setup-->Custom Log Options*. To put your own label on an item, click on the box and enter your own text. Click on the *OK* button to save your changes or click on the *Cancel* button to abort your changes.

There are 16 customizable check boxes which are located in the small scrollable region at the lower right of the Logbook window. You may select any combination of these items for each QSO in the log. Some of the uses include check boxes for state capitals, mobiles, QRP, etc.

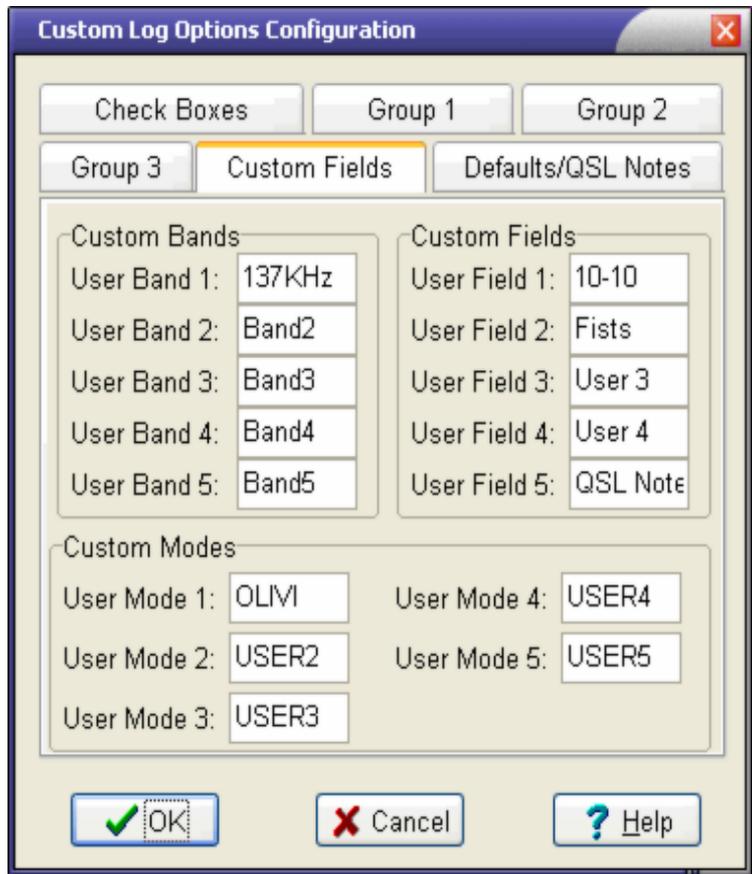
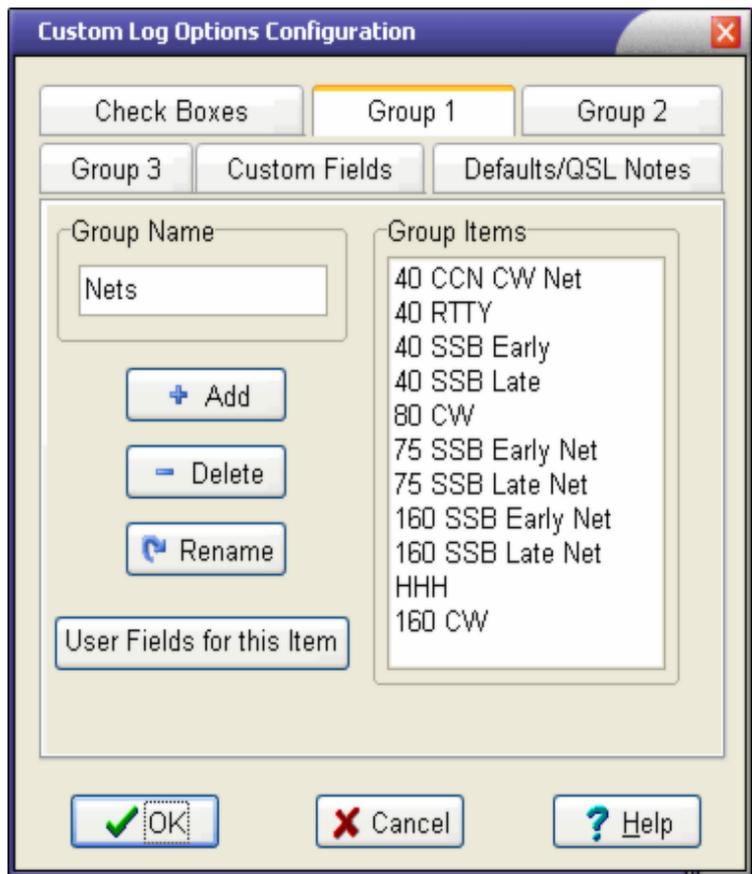
There are also 3 groups of 10 radio buttons each which are located below the 16 check boxes in the small scrollable region at the lower right of the Logbook window. These are groups in which you can select 1 of 10 options. For example, you may use them to indicate what net or satellite on which a Qso was made.

miLog provides five User definable bands. You can put your own names on these bands using the fields under Custom Bands. These custom band names will be shown in the logbook band control and in the various trackers as well as reports generated by the trackers.

There are also five User definable text fields that can be used for any data entry you desire and can be included in searching the log. You can set the name of the of these fields to the name of your choice. Your new name will be shown above the field in the Logbook window and on the Search menus. Each field can contain up to 20 characters each. These fields can be used for such things as 10-10, FISTS, HHH numbers, etc.

The data you enter in the fields under Defaults will be pre-filled into the appropriate field when entering new Qsos, saving you the trouble of typing it for each entry.

You also have to ability to set one of the User definable text fields to be used for notes on your QSL cards or labels. If you use this feature, any text entered into the designated field will automatically be printed on the card or label for that qso.



Customizing Colors

Available in: Most windows

Module windows that have information grids such as the Logbook, DX Cluster, Contest, Trackers, Dx Monitor, Multiplier Monitor, Band Map, PSK, RTTY, etc allow you to customize the colors to your preferences. Simply select the desired color from the Color Dialog. All colors are saved and recalled the next time you run miLog.

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Adding QSOs to Your Main Log

Available in: Logbook



Toolbar shortcut icon

To add new Qsos to your main log, you can either select *Edit-->Add Qso* from the menu bar in the Logbook window, click on the toolbar icon or press *<F8>*.

After entering the Add Qso mode, the cursor will be placed in the callsign entry box. You have three options on what to enter in the callsign box.

For normal Qso entry, you would enter the callsign here. You can also enter a valid frequency and press Enter to move your radio to the new frequency. You may also enter an antenna heading and press Enter to command your rotor to move to the new heading.

Press *<Tab>* after entering the callsign and miLog will try to determine the country from the call. If miLog is *connected to your radio* and the *Auto Band/Mode* feature is enabled, the band, mode, frequency and default signal reports will be automatically filled in for you. Also, if you have installed one of the supported *address databases*, miLog will also, if the option is enabled, automatically lookup the call in the address database and fill in the fields with data obtained from the database such as name, Qth, state, grid, county, etc, and if the State, US County, Country, CQ Zone or Grid are new band/modes their fields will be highlighted in green. Enter all desired information by moving through the entry boxes by pressing *<Tab>*. You may move backwards by pressing *<Shift-Tab>*. Of course, you may select any box at random by clicking on it with the mouse. The only required fields are CALL, DATE, TIME and BOTH SIGNAL REPORTS along with BAND and MODE. All other fields are optional. You may enter any miscellaneous information such as QSL route in the NOTES field. This field has no limits on the number of characters. When you finished entering data, press *<Enter>* or click on the *Save Qso* button. To abort this entry, press *<Esc>* or click on the *Cancel* button.

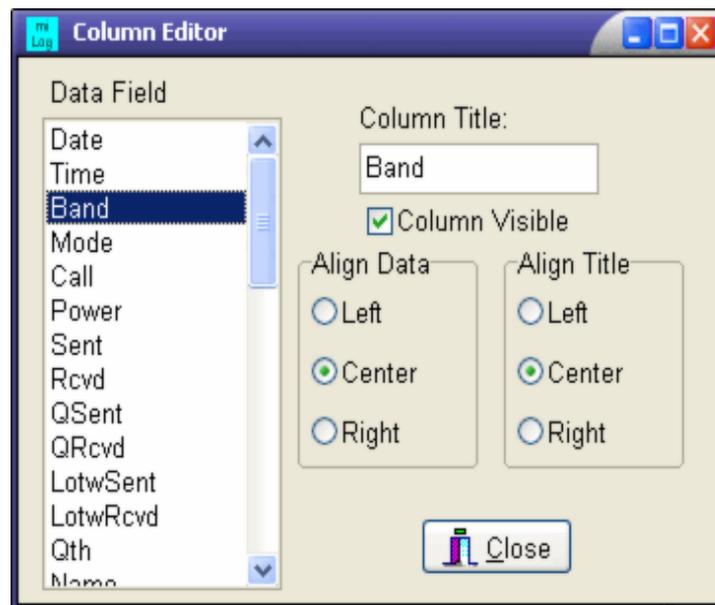
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Column Editor

Available in: Logbook and Contests

miLog gives you the ability to set the width and ordering of the columns in the qso grid in the Logbook and Contest windows. To change the width, simply place the mouse cursor on one edge of the column and press and hold the left mouse button while dragging the edge of the column left or right to the desired width. To move a column, place the mouse cursor over the title of the column and press and hold the left mouse button to drag the column to its new position.

You also have the ability to set the column titles and how the text is justified (left, center or right). You can also set whether a column is visible or not. To edit these properties, select *Setup-->Column Editor* from the menu bar in the Logbook or Contest windows. In the Column Editor window you are able to set these properties for each field. Simply close the editor when you are finished with your changes. miLog automatically saves you changes and will load them next time you run the program.



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Editing existing QSOs

Available in: Logbook



Toolbar shortcut icon

You may edit qso data by first selecting the desired qso in the log grid by either scrolling to it using the up and down arrow keys or by clicking on it. After selecting the qso you wish to edit, you can either enter the Edit Qso mode by selecting *Edit-->Edit Qso* from the menu bar, right-clicking on the qso and selecting *<Edit This Qso>* from the popup menu, click on the toolbar icon or press *<F7>*. The qso data will now appear in the entry fields and you may now add or update any information for that particular qso, such as checking the boxes for QSL Sent or QSL Rcvd. Press *<Enter>* or click on the *OK* button when finished. To abort any changes, press *<Esc>* or click on the *Cancel* button. To *toggle the QSL Received field* you may simply select the qso and press *<Ctrl-Q>* without going into the Edit Qso mode.

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Searching the Log File

Available in: Logbook



Toolbar shortcut icon

Simple log searches can be done on Call, Country, State, Grid, County, Date, Prefecture and the five *Custom Fields*. These searches are selected from the *Search* heading on the menu bar in the Logbook window. You can also click on the Call Search icon on the toolbar to do an Advanced Search. If there are any matches, all qsos matching the search parameter are displayed in the log grid. Partial Call searches will show all calls containing the characters you enter. For other fields you can use the * wildcard character at the end of the search text. To do a search on data in a particular qso, right-click on the qso in the log grid and select the search field on the popup menu. This saves the trouble of manually selecting the search data.

miLog also provides advanced searching capabilities using a combination of fields. To use this search method, select the fields you want to match and then select the desired search method using the buttons. Be sure you check the Apply to search box for the fields you wish to include in your searches.

HINT:

When you are finished with searching, click on the Clear Filters button in the toolbar to restore the entire log in the log grid.

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Unknown Countries

Available in: Logbook

On occasion miLog will be unable to determine a country from a callsign. In this case, the country name will be set to Unknown. To find qsos with unknown countries, select *Utilities-->Find Unknown Countries* from the menu bar and all qsos with unknown countries, if any, will be displayed in the log grid.

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Changing a Country Name in the Log File

Available in: Logbook

This function will change the name of a qso's country in the log file but does not change the

DXCC ID number. This is useful to update your log when a country changes its name. **Before you can change the country name in the log file, you must either change or add the name in the Country Data module.** To change the name of a country in your logbook, select *Edit -> Change Country Name* from the menu bar in the Logbook window. A list of all the countries in your log file will be created and displayed. Select the name of the country you want to change and click the *OK* button. If you want to abort the operation, click on the *Cancel* button or press *<Esc>*. After you have chosen the old name to change, a list will appear of countries currently in the Country Data database. Select the new name from the list and click on the *<OK>* button and all Qsos in your log file with the old country name will be updated to the new name. To abort the operation, click on the *Cancel* button or press *<Esc>*.

The DX Tracker uses country names to keep track of what you have worked so it is very important to update your log if you change the name of a country in the Country Data module.

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Qso Entry Options

Available in: Logbook

There are several options that control behavior when entering new Qsos into your log. Each of these options is located on the menu bar under the Options heading. These options may be enabled or disabled by clicking on the menu item. An option is enabled if there is a check mark next to the appropriate menu item.

Auto Update Date/Time



Toolbar shortcut icon

This option controls how to enter the date and time of a qso. If this option is disabled, the qso's time will be set to the time when you started entering the qso or to the time you enter manually. Disable this option if you are entering past qso's from an old logbook.

If enabled, this option will allow the date and time fields to continue updating with the current date and time and the qso's time will set to the time you actually save the qso to the log. For example, you enter the qso data but it takes you ten minutes to break a pileup. In this case, The qso's time will reflect the time you actually worked the station, not the time you started entering data.

Auto Band/Mode

This option allows the Band, Mode and Frequency fields to be continuously updated from the currently selected radio. This feature will also fill in default signal reports based on the mode. Updating will stop when you enter the Band or Mode fields or when you start typing a new frequency into the Frequency field. When disabled, the Band, Mode and Frequency fields have to be entered manually. Disabling this feature when you are entering past qsos from your logbook..

Auto Lookup

This option will lookup each call in the Buckmaster, Callbook or Qrz database (if installed) when entering a new qso and if the call is found in the database, the data from the database will be pre-filled into the appropriate fields.

Prefill Data from Previous Qsos

This option, when enabled, will search the log for previous qsos with a station when you are entering a new qso. If there are any previous qsos in the log the data from the previous qsos

will be prefilled into the appropriate fields for the new qso.

Show Qso History

When enabled, this feature will show all previous qsos with a station in the data grid when you enter the call in a new qso. If there are no previous qsos or this feature is disabled, the current log will be shown in the data grid.

Use Default Signal Reports

This option, when enabled, will enter default signal reports of 59 or 599 based on the current mode.

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Updating the Dxcc ID Numbers

Available in: Logbook

The ARRL keeps track of Dxcc countries with a numbering system. This numbering system is also used in ADIF files for designating these DXCC entities. You would normally use this function after importing an ADIF file that does not contain the Dxcc Id numbers. To run this utility, select *Utilities-->Update Dxcc Id* from the menu bar. After confirming you wish to do this the entire log will be scanned and the Dxcc Id Number for each qso in your main log file will be updated based on the country name.

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Determining the Country from the Callsign

Available in: Logbook

The ARRL keeps track of DXCC entities with a numbering system and this same numbering system is used in ADIF files for designating the DXCC entity of each Qso. Several popular logging programs do not include this number in their ADIF files. The Determine Country from Call utility scans the entire logbook and does its best to determine the country and zone information based on the callsign for that qso. After you import an ADIF file and no country names are showing in the log, you may need to run this utility by selecting *Utilities-->Determine Country from Call* on the menu bar. Note that some prefixes have changed over the past years and may yield improper results for some countries, primarily Russian qsos made before they changed many of their prefixes in the mid-1990s. This function also will add the proper zone information to each qso if the country occupies only one zone. If there are multiple zones in a country, the zone field will be left blank.

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Sending a Qso as Dx Spot

Available in: Logbook + Contests

There are several methods of sending a particular qso as a Dx Spot to your favorite Dx Cluster. If you select a qso in the log grid and press <F12> or select *Send-->Send Qso as Dx Spot* from the menu bar, that qso will be sent as a Dx spot. You can also right-click on the qso and select *Send Qso as Dx Spot* from the popup menu. If there are no qsos selected, pressing

<F12> will send the last qso entered as the Dx Spot.

NOTE: You must have a radio connected or manually enter the frequency to use this feature. Qsos without frequency data will not be sent.

You may also manually send a Dx Spot by selecting Utilities-->Send Manual Dx Spot from the menu bar or by pressing Shift-F12. A prompt window will appear in which you may enter the data for the spot. If you have a radio connected, the frequency will automatically be entered for you. After entering frequency and call, click on OK to send the spot or click on Cancel to abort the operation. You may also add comments to be included in the spot.

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Checking in QSLs

Available in: Logbook



Toolbar shortcut icon

Checking in QSL cards you receive is a simple process using the following steps:

- 1 - First search the log for the call on the QSL card.
- 2 - Select the desired Qso in the Search Results window.
- 3 - Either select *QSLing-->Mark QSL Rcvd* from the menu bar, press <Ctrl-Q> or click on the toolbar icon, which will toggle the QSL Rcvd box on and off.

Of course, you can also select the qso in the Logbook window, go into *Edit Qso* mode and manually check the Qsl Rcvd box.

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Setting up nets

miLog makes it very easy to operate on your favorite nets such as OMISS, HHH, Century Club and track your net qsos. miLog also gives you the ability to automatically include the net name on your QSL cards. Setting up miLog for your net operations is simply done with the following steps:

1. Open the Custom Log Options Configuration window by selecting *Setup-->Custom Log Options* from the menu bar in the Logbook window.
2. Select one of the three groups in which you wish to list all of the names of the nets you wish to include. You can enter separate names for nets of the same club but on different bands, early or late net, etc.
3. To automatically include the net name on the QSL cards or labels, select the Defaults/QSL Notes Tab. Select one of the 5 user fields in the QSL Notes box (Field 5 is a good choice) and check the Use Net Name from Net List box.

That is all there is to it. For information on using miLog while operating on the net see Net Operations.

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Net Operation

Operating on your favorite net is easy with miLog. After configuring your net preferences, open the Net List window by selecting *Utilities-->Net Operation* from the menu in the Logbook window. Before the Net List window appears you will be prompted for the net. After you have selected the net the main Net List window will appear.

Entering stations into the Net List

The first step in adding stations to the list is to select the line on which you wish to add a station. Next, either press *<F8>*, select *Edit-->Add Entry* or right-click on the desired line and select *Add Entry* from the popup menu. Enter the callsign when prompted and press *<Enter>*. If you have previously worked that station the line will show the data from previous qsos otherwise the data is retrieved from the installed address database. The entry will be color-coded according to whether you have worked that station on that net or not. The color will also show if a QSL has been received for a contact with that station on that net.

Working stations on the list

Double-click on a station or right-click on the entry and select *Work Station* from the popup menu and the qso will be initiated in the Logbook with all the appropriate data fields pre-filled for you, including the net selection. The color of the entry will be updated after completing the qso and entering it into the Logbook. Note that this color updating only occurs if the qso is initiated from the Net List window.

Removing stations from the list

You can remove one station at a time by selecting the entry and choosing *Edit-->Delete Entry* from the menu. Alternatively, you can right-click on the entry and select *Delete Entry* from the popup menu. You may also clear the entire list by selecting *Edit-->Clear Entries* from the menu.

Searching for the call in the logbook

You can search for previous qsos with a station by first selecting the station and either press *<F3>* or right-click on the station and select *Find in Logbook*.

File Operations

You can save and recall your net lists using the *File-->Save to File* and the *File-->Load from File* functions on the menu. After loading a list from a file all entries are checked against qsos in the Logbook using the net currently selected in the Net List window and color codes updated accordingly.

Changing the net selection

You can change the current net by selecting *Action-->Select Net* from the menu bar and choosing the new net. This will result in all entries being rechecked against the Logbook using the new net selection and color codes updated accordingly.

	Date	Time	Call	Notes	Name	Qth	State	QS	Sent Date	QR	Rcvd Date
15			KC8PXS		Marcus	St Helen	MI				
16	3/18/2006	2103	N8LPQ		EDWARD	TOLEDO	OH				
17			KD7JOR		Billy	Great Falls	MT				
18	10/7/2005	0340	K0HNM		Larry	Poplar Grove	IL	X	11/4/2005	X	11/4/2005
19	11/30/2005	0436	WA9YNE		Wayne	La Porte	IN			X	2/22/2006
20	3/18/2006	2101	N1NU		Jay	Le Sueur	MN			X	3/18/2006
21	3/18/2006	2101	N0PUI		Jay	Merna	MN			X	3/18/2006
22			KC0VAK				MN				
23	11/29/2005	0433	KC0OCC							X	1/4/2006
24			K9RVB								
25	1/28/2000	0428	KB1VU		John	North Uxbridge	MA	X		X	
26			N1ZIP		Christophe	North Andover	MA				
27	10/11/1999	0409	W1BML		Earl	Groton	CT	X		X	
28	11/29/2005	0441	N5OHL		Jim	Oklahoma City	OK	X	12/23/2005	X	1/4/2006
29			KD1EJ		David	Coventry	RI				
30			K1CCN								
31			KC2MVC								
32	1/28/2000	0433	WB2RWT		Gladys	Schenectady	NY	X		X	
33	2/4/2000	0425	KA2WQR		Jerry	Binghamton	NY	X	12/23/2005	X	2/22/2006
34			NR3MT								
35			WU2I		Blase	Linden	NJ				
36	12/6/2005	0426	KC2IYE		Robert	Lindenwold	NJ	X	12/23/2005	X	1/5/2006
37			AB2LA		Joseph	Newark	NJ				
38			K3QX			Lake Worth	FL				
39			N1ARS		Ronald	Greensboro	NC				

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Sending QSLs

Available in: Logbook

miLog can print either QSL labels or complete QSL cards using a user supplied image for the card. Generating labels or cards is done using a simple process as follows:

1 - The first step is to open the QSLing window by clicking on QSLing on the menu bar in the Logbook window. Depending on whether or not this is your first QSLing session, there may already be Qsos listed in the QSLing window. If you want to delete all the entries, click on the Clear List button.

2 - The next step is to select the Qsos for which you wish to make labels or cards. This is done simply by selecting the qso in the log grid in the Logbook window and selecting **QSLing->Mark QSL Sent** or by pressing **<Ctrl-S>**. If the QSL Sent box is not checked for this Qso then it will be automatically checked and the Qso data added to the QSL list. If QSL Sent is checked, this function will uncheck the box and remove the Qso from the QSL list if it has been previously added. Simply press **<Ctrl-S>** to remark it as sent and add the Qso to the QSL list. You may also automatically add all qsos that are *new band/modes* and are marked as the QSL having already been sent.

3 - After all Qsos have been selected, go back to the QSLing window by clicking on it or by selecting **QSLing-->Show QSLing Window** from the menu bar in the Logbook module. Click on the **QSL Data** tab and all your selected qsos should be showing there. If you want to delete

specific qsos, first select them by clicking on the and then press *<Delete>* or click on the *Delete Qso* button.

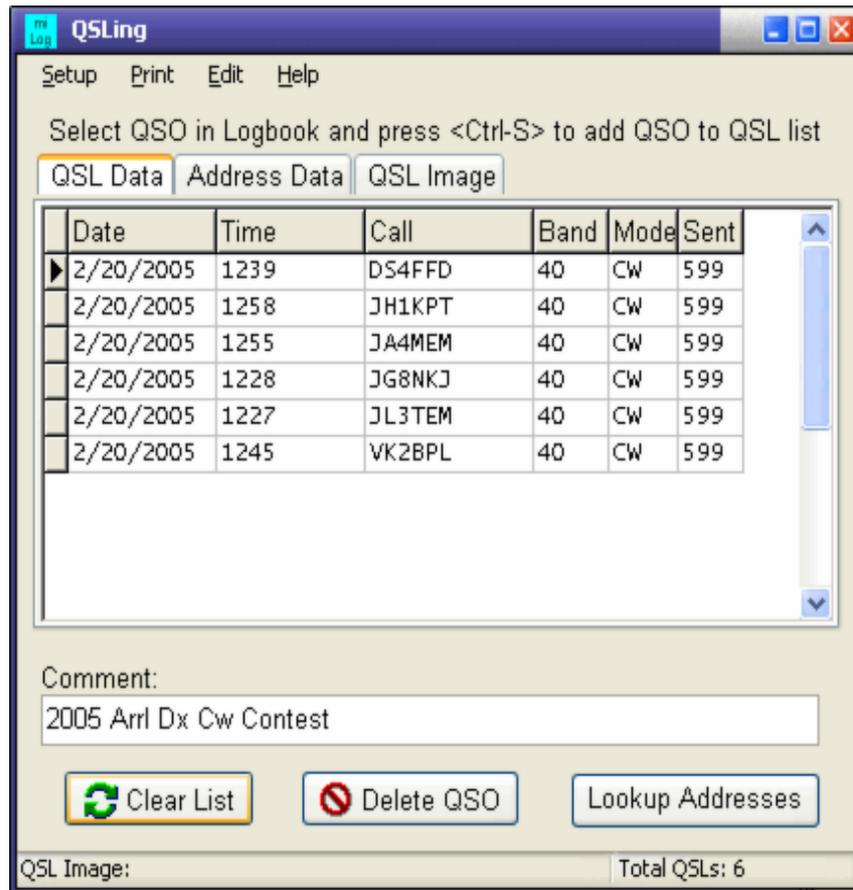
4 - If you have installed one of the supported *Address Lookup databases* and you want to generate address labels, click on the *Lookup Addresses* button and addresses will appear for every call that was found in the address database.

5 - If you want to print QSL cards instead of labels, you must load an image for the QSL card if you have not previously done so. You can use any graphics program you wish to create your card image before loading it into miLog. Supported file formats are JPG, BMP, EMF, ICO and WMF. You do not need to make a place for Qso data in your image since the Qso data is printed in a strip across the bottom of the card. You only need to have your call, name, address, grid, etc included in your image. Digital photos or scanned images of you in your shack or antenna farm make great QSL images and since you are printing cards on demand, you can change the image as often as you wish. You can check the image by clicking on the QSL image tab.

6 - If you are printing labels, select either *Print-->QSL Labels* or *Print-->Address Labels* from the menu bar and you will be asked for the format of your labels. If you choose a sheet format, you will be asked to select the starting label on the page. This feature allows you to start with a partially used page of labels. Due to limitations of the report generator component, you cannot print QSL and Address labels at the same time since they do not have the same data format. Since the address labels contain the callsign and are printed in the same order as the QSL labels, they are easy to match up.

7 - If you are printing QSL cards, select the desired card format under the *Print* heading on the menu bar.

8 - After you have made your printing selections, a print preview window will appear to let you examine how the print output will appear. If you are happy with it, click on the Printer icon in the upper left corner of the preview window. The three icons to the right of the printer icon are for zooming in on your image. You can also maximize the preview window for a better look.



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LoTW (Logbook of the World)

Available in: Logbook

miLog contains full support for Logbook of the World (LoTW), including uploading logs to LoTW and downloading confirmed Qso logs and marking LoTW QsIs received in your log files. In order to use the LoTW features of miLog you must first install the TQsl software available free from the Arrl website. You must also have installed valid TQsl certificates. See the Arrl website for more information on LoTW.

Configuring miLog's Lotw interface

There are two steps you must take before you can use the LoTW features. First, you must configure your *basic email settings*. Click [here](#) for information on basic email settings. After you have entered your basic email settings you are ready to configure your LoTW settings. Select *LoTW-->Configuration* from the Logbook menu bar to open the LoTW configuration window. The fields for User name and Password should be filled in with the data provided by the Arrl. The LoTW upload address field should contain the email address used by the Arrl for uploading logs. The default is "lotw-logs@arrl.org". This should not be changed unless the Arrl changes this address. The last step is enter the search path to where you install the TQsl program. You can either type it in manually or use the drive and directory boxes. If you type it in manually, be sure there is a backslash at the end of the path name. Click the *OK* button to accept the entries or the *Cancel* button to abort any changes.

Creating a file for LoTW

Creating an ADIF file for the TQsl program is very simple. First select *LoTW-->Create File for LoTW* on the menu bar. You will be prompted for a filename. Enter any name you wish, with

no extensions, but you should always choose a different filename for each LoTW upload. You will next be asked if you want to limit the file to qsos not already marked as LoTW Sent. Choose *Yes* to include only qsos not previously sent to LoTW or choose *No* to include all qsos. After the ADIF file has been created, an editor window will appear that allows you to view the created data. After clicking on the *Close* button, the TQsl program will be activated using the ADIF file just created. Perform the standard operations in the TQsl program to process the qso data. If TQsl does not appear, double-check the TQsl path in your LoTW configuration settings.



Uploading your file to LoTW

After processing your qsos in TQsl and closing TQsl, you are now ready to upload the "TQ8" file to LoTW. Start this process by selecting *LoTW-->Upload* to LoTW from the menu bar. Now select the file with the filename you entered with an extension of .TQ8. After clicking on the *Open* button an upload status window will appear which shows the status and progress of your upload. If any error message appear you should double-check your *email settings* and LoTW configuration settings.

Download from LoTW

After you have uploaded your data to LoTW and received an acknowledgement email from LoTW you are ready to download a file from LoTW that contains a list of confirmed qsos. Do this by selecting *LoTW-->Download from LoTW* on the menu bar. When the File Download window appears, click on *Save* and a File Save window will appear. **DO NOT USE THE DEFAULT FILENAME** as it will be the same for every LoTW download. A good idea to use the same filename you used for the upload but add "LOTW_" to the beginning of the filename, such as "LOTW_MyQsos.adif". After the download is complete you are ready to update your log file to mark all confirmed qsos as "LoTW Rcvd".

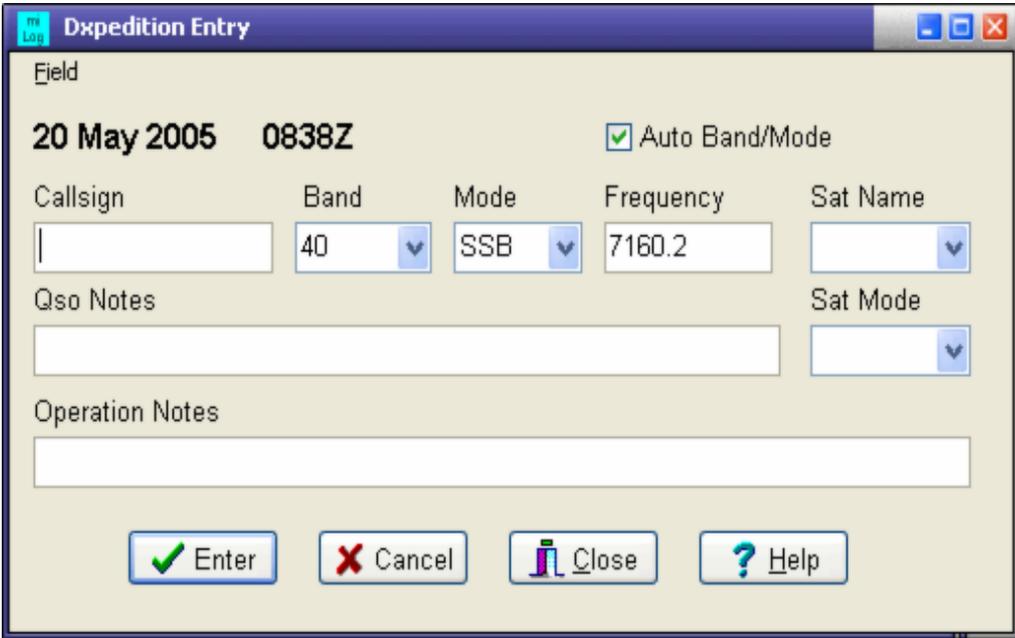
Checking in your LoTW QSLs

Updating your logbook qsos that have been confirmed by LoTW is a simple task. First select *LoTW-->Update LoTW Qsls Received* from the menu bar. Now select the ADI file you wish to use. After clicking on the *Open* button all qsos contained in the LoTW file will now be marked as LoTW Rcvd.

Dxpedition Qso Entry

Available in: Logbook

To facilitate rapid Qso entry, miLog has a Dxpedition Entry screen which is available on the Logbook window menu bar. Operation of this entry screen is very simple. Just type in the callsign and press *<Enter>* and the Qso will be entered into the currently selected logbook file. If you have interface your radio to miLog, the frequency and mode will be set automatically. If not, select the desired band and mode before entering the Qso. If you wish to disable the automatic setting of the band and mode, such as when using a VHF/UHF transverter, uncheck the Auto Band/Mode box and set the data manually. If you are operating through a satellite, select the desired satellite name and operating mode. You may enter notes for each Qso and you may also enter a Operation Note that will be entered for each Qso. Click on *Cancel* or press *<ESC>* to abort a Qso and start a new one or click on *Close* to close the entry screen.



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Dx Atlas

Available in: Logbook

Dx Atlas is a third party program by VE3NEA that has many useful features including Gray Line projections and the ability to plot Qso locations, similar to placing pins into a map. To use the Dx Atlas features in miLog you must first download and install Dx Atlas. The program can be found at www.dxatlas.com

Dx Atlas can be invoked from within miLog by clicking on the Dx Atlas panel in the Launch window. After Dx Atlas is running the menu functions in the Logbook window for Dx Atlas will be enabled.

Dx Atlas menu options are:

Show brings the map window to the foreground

Hide is used to hide the Dx Atlas window

Close is used to close the Dx Atlas program (Only if Dx Atlas was invoked from within miLog)
Show Gray Line toggles the gray line projection on and off

CQ Zones will overlay an outline of CQ zones on the map

ITU Zones will overlay an outline of ITU zones on the map

No Zones cancels zone overlays

NOTE: Before you can display pins you must first build the pin list.

Show Worked Pins will place dots on the map for every Qso in your log (you must first build pins list)

Show Qsl Confirmed Pins will place dots on the map for every qso in your log confirmed by QSL card

Show LoTW Confirmed Pins will place dots on the map for every qso in your log confirmed by

LoTW--> Show All Confirmed Pins will place dots on the map for every confirmed qso in your log

Clear Pins erases all dots from the map but does not affect your pin list file.

Build Pin List is used to build the list of worked and confirm Qso locations for placing on the map

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Dx Cluster

Dx Cluster

The DX Cluster module has been designed for the serious DXer. Connections for up to 5 of your favorite Clusters can be made via packet radio or via Telnet.

To simplify sending common commands to the cluster node there are 10 *macro buttons* that can send commands with a single mouse click and can be programmed with your most used commands.

In addition to being displayed in the main terminal windows, DX announcements are parsed out of the data stream and displayed in the *DX Monitor* window in a color that indicates whether you need that country on that band/mode, have worked it before or have it confirmed. If you are connected to multiple clusters, duplicate spots will not appear in the Dx Monitor.

Also, all cluster traffic for each connection is available for viewing by clicking the *Show History* button. This brings up a window that contains all traffic received in the currently displayed terminal window since miLog was started or when you connected to that cluster.

See these topics for more detailed information on the Dx Cluster:

Configuring cluster connections

Viewing cluster data history

Filtering Spots

Mode Sub-Bands

Capturing cluster traffic

Paging of Dx Spots

Configuring the Macro Buttons

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Configuring a Cluster Connection

Available in: Dx Cluster

The Connection Configuration window is where you set the parameters for your cluster connection. Open this window by first selecting the cluster you wish to configure using the buttons at the top of the Dx Cluster window. Next click on the *Configure* button to open the configuration window.

Basic configuration

If you connect via a TNC, set the Com Port, Baud Rate, Data Bits, Stop Bits and Parity to match those used by your TNC.

For connections via Telnet, you need only set the Telnet Address field. This can either be a URL name such as "dxc.ab5k.net" or the actual dotted IP address. If your cluster uses an address such as XXX.XXX.XXX.XXX:7300 enter the IP address noted by the X in the example and put the port number, shown as 7300 in the example, in the Port field. Do not enter the colon anywhere. If your cluster does not have any numbers after a colon, use the default port

number of 23.

If your cluster or TNC does not echo back characters as you enter them, enable the Local Echo box.

The Keep Alive function is provided to send a packet (carriage return) at a specified interval. This is required by some ISPs and clusters to prevent your connection from being dropped due to no activity.

Auto Connect features

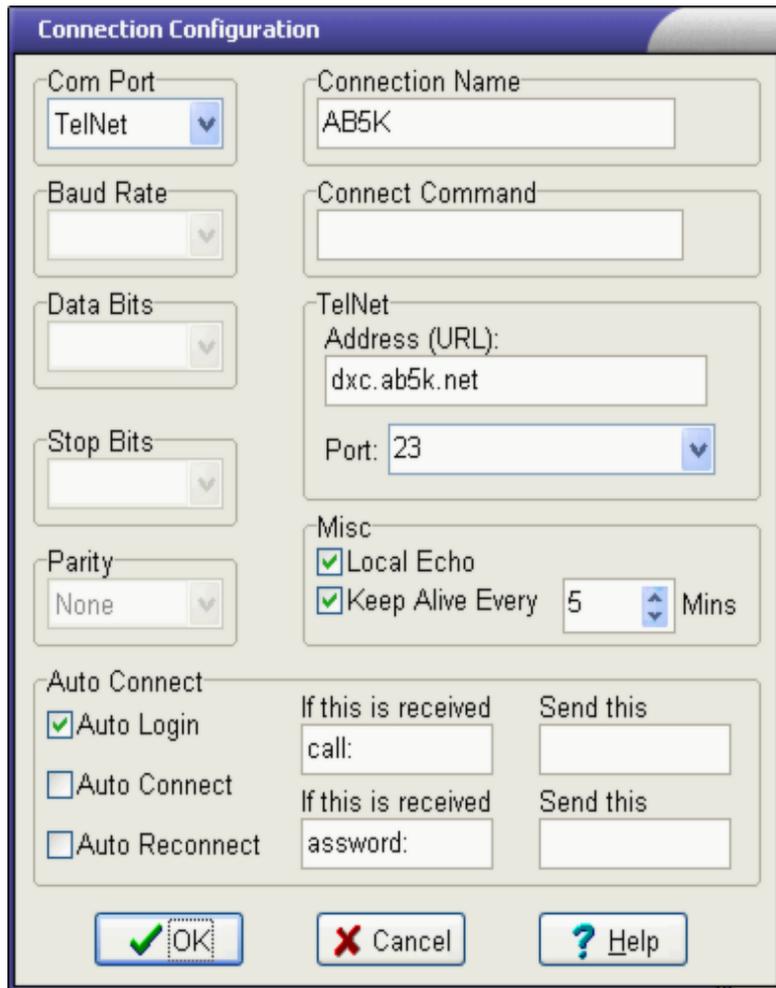
The miLog cluster interface has the ability to automatically log you in to your cluster when you connect. The first step in configuring the Auto Connect functions is to set the text to be sent when the cluster asks for your login information. Most clusters respond with "call:" while a few respond with "login:". Put this text in the upper *If this is received* box. Please note that this text is case sensitive and it might be better to enter "all:" or "ogin:" to remove any ambiguity about upper case letters. Place the login name, normally your callsign, in the upper *Send this* box. If your cluster also requires a password, follow the same procedure using the lower set of boxes. Normally, "assword:" will be sufficient here. Note that by not including the first letter, it will respond equally to both "Password:" and "password:". Check the *Auto Login* box to enable automatically logging in to this cluster.

If you want to log on automatically when you first start miLog, check the box for *Auto Connect*.

If you want miLog to automatically restore a dropped connection, check the *Auto Reconnect* box.

NOTE: The above three options require you to set up the login responses.

When finished, click the *Ok* button to apply your changes or the *Cancel* button to abort any changes.

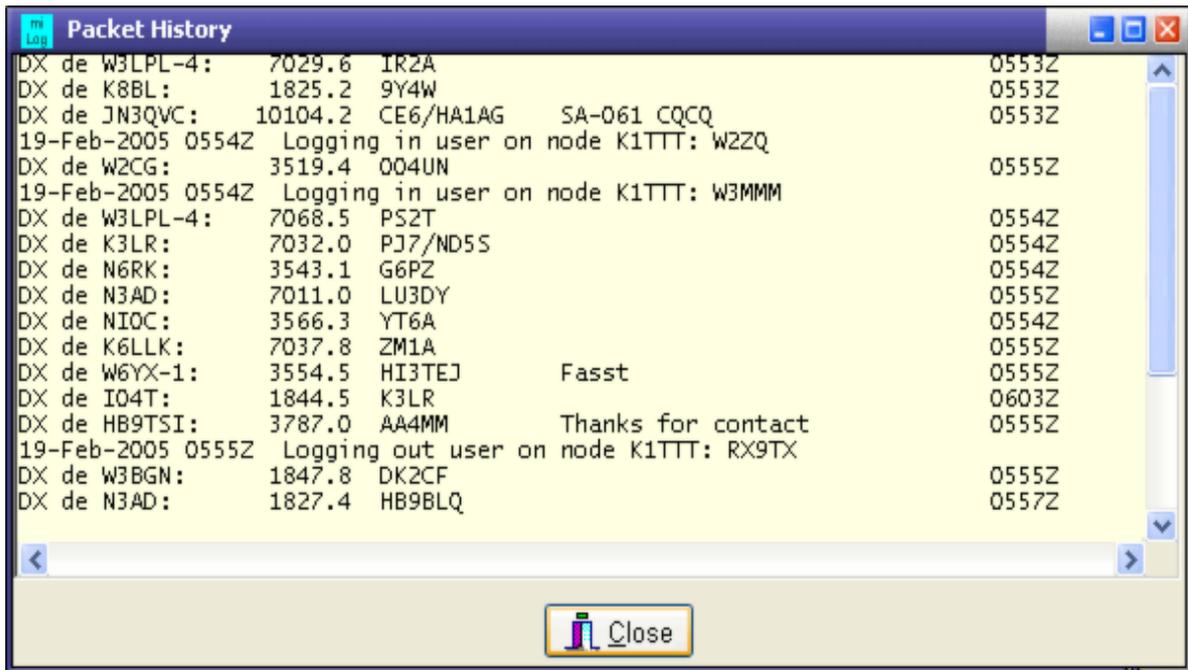


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Viewing Cluster Data History

Available in: Dx Cluster

Show History is a feature that allows you to review all past traffic received from the DX cluster connection, whether it is a packet or telnet connection. The name of the connection is shown at the top of the window and data is shown in the same color as the selected cluster port window. This feature allows you to scroll back through past data without being interrupted by new traffic or missing any new announcements. Click on the *Close* button to close the window.



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Configuring the Spot Filters

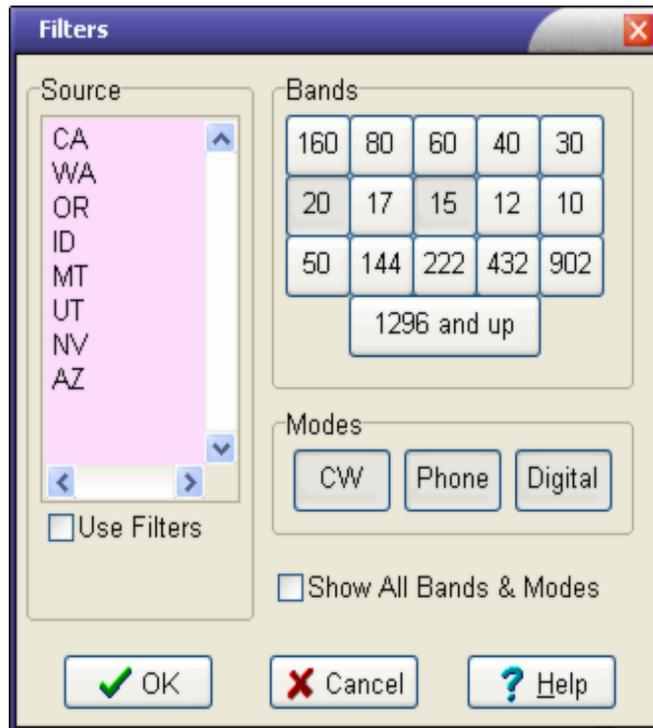
Available in: Dx Cluster, General Band Map & Dx Monitor

Most cluster nodes have the ability to show the state or country where the DX spot originated. This information is typically shown at the end of a spot. If your favorite cluster has this feature, miLog gives you the ability to filter spots to those only from areas you wish to see. Select *Edit-->Filters* from the menu bar and simply enter the abbreviations of the states or prefixes of the countries from which you wish to see DX spots. You may enable and disable spot source filtering by enabling or disabling the *Use Filters* box.

miLog also provides filtering based on the band and mode of the dx spot. Simply depress (click on) the buttons for the bands and modes for which you wish to see spots. Check the *Show All Bands & Modes* box if you want to see all spots.

Click on the *OK*> button to apply and save your changes or click on the *<Cancel*> button to abort any changes.

NOTE: Filtering only applies to spots shown in the *Dx Monitor* and *General Band Map* windows and does not affect spots in the Cluster or contest windows.



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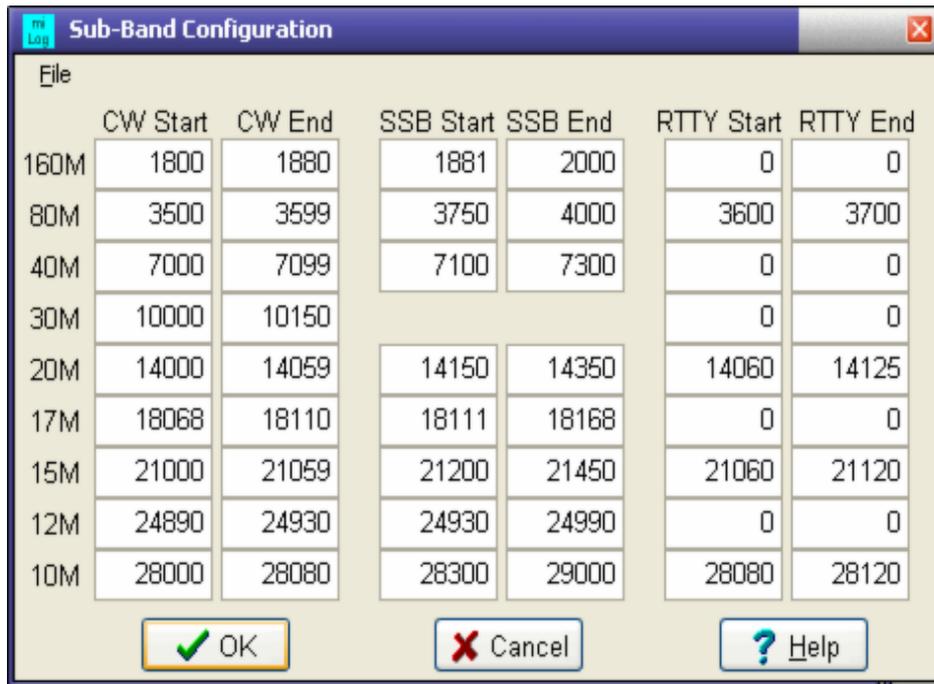
Configuring the Sub-Bands

Available in: Dx Cluster + Radio Display + Contests

miLog determines the mode of cluster spots based on the frequency. The frequency limits for each mode can be set in the Sub-Band Configuration window which you can access by selecting *Setup-->Sub-Band Limits* from the menu bar. These sub-band limits are also used to determine the mode when setting your radio's frequency from miLog. You may customize these entries to match the privileges of your license class or for different contests. If you do not want a particular band/mode combination to be assigned to any Dx announcements, set the start and end frequencies to 0. Click on the *OK* button to save your changes or click the *Cancel* button to abort any changes.

To create a new sub-band profile, select *File-->New Table* from the menu bar and then enter a name for the new profile. Do not enter any file extension for the new name. You may now set the sub-band edges for the new profile.

To load a profile, select *File-->Open Table* from the menu bar and select the desired profile table from the file list.



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Capturing Cluster Traffic

Available in: Dx Cluster

The DX Cluster module has the ability to capture all incoming data to a text file. This capture function is available separately for each connection.

Starting the capture process

 **Toolbar shortcut icon**

To start capturing data, first select the cluster port from which you want to capture data using the buttons at the top of the *Dx Cluster* window. After you have selected the desired cluster, select *File -> Start Capture File* from the menu bar or click on the toolbar icon, enter a filename when prompted and you are all set. All data received from that cluster connection will be saved to the capture file. While capturing is in progress, the capture file name will be highlighted and shown at the bottom of the terminal window.

Ending the capture process

 **Toolbar shortcut icon**

To stop capturing from a particular connection, first select the desired connection and select *File -> Close Capture File* on the menu bar or click on the toolbar icon. When you close the capture file, you will have the option to view the file you desire.

Viewing a capture file

 **Toolbar shortcut icon**

If you wish to view the capture file at a later time, you may do so by selecting *File -> View Capture File* from the menu bar and providing the filename when prompted to do so. The captured data will be shown in an editor window which allows you to make any changes or notations you wish and then save the file with your changes.

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Paging of Dx Spots

Available in: Control Panel + Dx Cluster

The most unique feature of miLog is the ability to send Dx announcements from Dx Cluster to your digital pager or cellular phone. Select *Edit-->Spot Paging* from the menu bar in the Launch or *Dx Cluster* windows to configure the Paging system.

Start with selecting which spots you want forwarded to your pager. If you want all spots for new band/modes for all countries, select the *All Needed Spots* check box. If you only want spots for certain countries, add countries to your list by clicking on the *Add* button and selecting the desired country. To remove a country from the list, select the country to be deleted and click the *Delete* button. If you want to be paged for all announcements for certain countries, enter them in the "Always Page These Countries" window by clicking on the *Add* button and selecting the desired country. To always page certain callsigns, simply type the call into the list box under "Always Page These Calls".

The other properties that need to be configured are your *basic email settings* and the destination email address. If you do not know the address of your mail server, you will find it within the configuration part of your email program. The email address is the address of your pager or cell phone. Finally, select the *Enable Spot Paging* check box to enable paging.

NOTES: Paging will be automatically disabled if any errors occur while attempting to send a spot email. You must be connected to the internet to use this feature.

Paging Configuration

Needed Countries

- Afghanistan
- Andaman & Nicobar Is
- Crozet Island
- Ducie Island
- San Felix & San Ambrosio

Add Delete

All Needed Spots (Red ones)

Email Properties

Recipient Email Address:

Carbon Copy:

Enable Spot Paging

Connected to server

Always Page These Countries

- Albania
- Belgium

Add Delete

Always Page These Calls

- NE1B
- IR2A

? Help
Close
Save
Email Settings

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Configuring the Macro Buttons

Available in: Dx Cluster

Configuring the macro buttons, which let you send commands to your DX Cluster with a single mouse click, are programmed by selecting *Edit-->Macros* from the menu bar or by right-clicking on the button you wish to program. After selecting the button you wish to program, enter the desired command when prompted. All macros are saved when you exit miLog and are automatically loaded each time you start the program.

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Dx Monitoring

Dx Monitoring

Dx Monitor

The main window used for Dx Monitoring is the Dx Monitor. It is a special window that lists DX announcements that are color coded according to your needs. Controlling which spots appear in General Band Map and *Dx Monitor* is done in the *Filters* window which is selected by choosing Edit-->Filters from the menu bar.

Another useful Dx monitoring feature is the *General Band Map*. It displays the Dx announcements sorted by frequency. Default color coding is:

BAND/MODE NEEDED

BAND/MODE WORKED

BAND/MODE CONFIRMED BY LoTW

BAND/MODE CONFIRMED BY QSL

BAND/MODE CONFIRMED BY LoTW & QSL

You may customize the text and background colors for each type of announcement using the menu selections under *Setup* on the menu bar. Many users prefer using black text for all announcements and having a different background color depending on the needed status of the announcement. Simply clicking on an announcement will show you the data for that country in the Station Information window, including heading, distance and will also show status of all band/modes for that country in the Trackers window.

To make operation easy, there are many pop-up menu functions that are available by right-clicking on an announcement.

This window can be resized to suit your needs and size of your desktop.

Automatic Radio Frequency and Mode

After selecting an announcement, press <1> or <2> to set the desired radio to the spot's frequency and mode. Double-click on the spot, press <Enter> or right-click on the spot and select *Goto Freq & Start Qso* from the popup menu to set the current radio to the frequency and start entering the qso into the log file open in the *Logbook* module. To return to your previous frequency, click on *Radio-->Restore Frequency* on the menu bar or press <Ctrl-R>.

Call Sign	Frequency	Name	Mode
DX de VE6TN:	21050.0	VK8AV	VK 2305Z AE
DX de KA5KLU:	7040.1	HG6N	HA 2305Z T
DX de DJ1AA:	7068.6	K3DI ARRL MD	K 2305Z DL
DX de W3KB:	21038.6	V7/K7ZZ	+V7 2305Z PA
DX de WB8B:	14083.9	XE2MX	XE 2305Z MJ
DX de NQ4I:	7075.0	IK3UPB	I 2306Z GA
DX de N6CY:	7028.5	HA3MQ	HA 2306Z VA
DX de F6KHM:	3502.0	W3LPL TKS GUYS FR F 6 K H M	K 2306Z F
DX de W3LPL-4:	7075.0	IK4UPB not 3...	I 2306Z MC
DX de SM2LIY:	21005.0	K5YAA	+K 2316Z SM
DX de N6CY:	7029.9	IO3P	I 2306Z VA
DX de OK1KT:	3519.0	K1TTT	+K 2306Z OH
DX de N6CY:	7031.1	SN2B	SP 2306Z VA
DX de K3LR:	14055.5	V31PP	V3 2306Z PA
DX de K3LR:	14051.3	HQ9H	HR 2307Z PA
DX de F6KHM:	3503.4	KC1XX	+K 2307Z F
DX de VE3YV:	3500.9	VY1PM	VE 2307Z OH
DX de W3LPL-4:	7073.7	YO2LEA	YO 2307Z MC
DX de IW1PNC:	7080.0	IILANT SPEC. CALL ANTARTICA REF WAP 3	I 2307Z I

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General Band Map

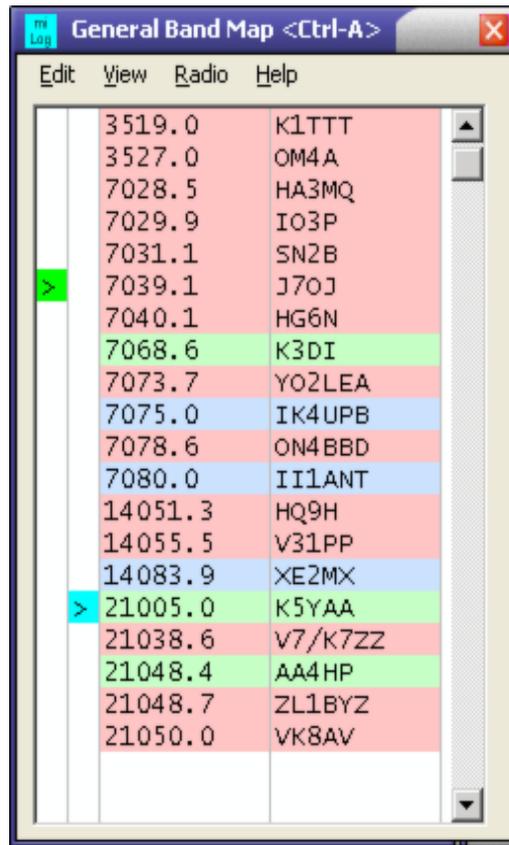
The General Band Map feature of miLog displays packet spots in order by frequency and color codes them according to your needs. To show the band map, select *View-->General Band Map* from the menu bar in most of the major windows or simply press *<Ctrl-A>* while in any of these windows. Note that this band map is different and separate from the *Contesting Band Map*. Controlling which spots appear in General Band Map and *Dx Monitor* is done in the *Filters* window which is selected by choosing *Edit-->Filters* from the menu bar.

Automatic Radio Frequency and Mode

To place either Radio 1 or Radio 2 on the frequency of a particular station, simply click on the station and press either *<1>* or *<2>* for the desired radio. To place the radio on the stations frequency and automatically enter the station's call in the entry fields, either press *<Enter>* after selecting the station or simply double-click on the spot. Which radio is tuned to the frequency depends on the setting of the Auto Route Radios option. The current frequency of each radio is shown by a colored "*>*". Radio 1 is green and Radio 2 is blue.

Auto Route Radios

This option controls which radio is set to a stations frequency when either pressing *<Enter>* after selecting the spot or by double-clicking on it. When this option is disabled, the radio currently selected will be set to the new frequency. When enabled, the radio set to the same band as the spot is the radio updated with the new frequency. If neither radio is on the same band as the spot, the currently selected radio will be updated. Set this option by selecting *Radio-->Auto Route* from the menu bar.



The screenshot shows a window titled "General Band Map <Ctrl-A>". The window has a menu bar with "Edit", "View", "Radio", and "Help". The main area contains a list of radio call signs and their corresponding frequencies. The list is as follows:

Frequency	Call Sign
3519.0	K1TTT
3527.0	OM4A
7028.5	HA3MQ
7029.9	I03P
7031.1	SN2B
7039.1	J70J
7040.1	HG6N
7068.6	K3DI
7073.7	YO2LEA
7075.0	IK4UPB
7078.6	ON4BBD
7080.0	II1ANT
14051.3	HQ9H
14055.5	V31PP
14083.9	XE2MX
21005.0	K5YAA
21038.6	V7/K7ZZ
21048.4	AA4HP
21048.7	ZL1BYZ
21050.0	VK8AV

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Trackers

Trackers

The Trackers module is used to keep track of the band and modes on which you have worked a country, state, zone, prefix, grid, Iota island, US county or JA prefecture. It also keeps track of which band/modes you have confirmed via Lotw or Qsl for each entity. These databases are separate from the main log files and are automatically updated each time you enter a qso directly into your logbook or, if you wish, after merging logs. You can also force an update to these databases by doing a complete scan of your logbook. This is required after merging logs but may be done at any time. These database is also used for the color-coding of Dx announcements in the Dx Monitor and General Band Map windows.

The displayed entity is updated each time you enter a call in the Logbook or Contest modules and also when you click on a Dx spot in the Dx Monitor window. It is also updated when you lookup country info using the *Country/Grid Info* or the *Address Lookup* features. If you want to manually select a country, you can select the country from the displayed list or you can select the country using it's prefix by clicking on the *By Prefix Button* and entering a prefix or callsign when prompted to do so. If the prefix is found in the prefix table. the list will automatically move to that country and display the Needed, Worked and Confirmed status.

Default color coding is as follows:

Needed (Unworked)

Worked but not confirmed

Confirmed

See these topics for more detailed information on the Trackers:

Creating a new tracker file

Open an existing tracker file

Updating and/or resetting a tracker file

Setting the status manually

Generating reports

Grid Matrix

-0-

Creating a New Tracker File

Available in: Trackers



Toolbar shortcut icon

To create a new Tracker file, select *File-->New Tracker File* from the menu bar or click on the toolbar icon. You will be prompted for a name for the new Tracker file and then asked which folder (directory) in which to create the file. If a file exists with the same name, you will be prompted whether or not you wish to overwrite the existing file. Click on the *Save* button to create the new Tracker file with the name you entered or click on the *Cancel* button to abort the operation.

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Opening a Tracker File

Available in: Trackers

Toolbar shortcut icon

To open an existing Tracker file, select *File-->Open Tracker File* from the menu bar, select the desired file and click on the *Open* button. To abort the operation click on the *Cancel* button. miLog will remember the current Tracker selection and will automatically load this file the next time you run the program.

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Updating Tracker Files

Available in: Trackers

One tracker at a time

If you wish to update the tracker file open in the selected tracker, select *File-->Update Tracker* from the menu bar. This function scans the entire main log file currently selected in the *Logbook* window and updates the tracker file. This is done mainly to update data after merging logs, creating a new tracking file or after adding a new entity to the tracker database.

If you want to reset all the band/mode data in the tracker file, select *File-->Reset Tracker* from the menu bar.

If you want to clear all existing band/mode data in the Tracker file before updating, select *File-->Reset & Update Tracker* from the menu bar.

All trackers at once

If you wish to update all of the currently open tracker files at one time, select *File-->Update All Trackers* from the menu bar. This function scans the entire main log file currently selected in the *Logbook* window and updates all the currently open tracker files. This is done mainly to update data after merging logs, creating a new tracking file or after adding a new entity to the tracker database.

If you want to reset all the band/mode data in all the currently open tracker files, select *File-->Reset All Trackers* from the menu bar.

If you want to clear all existing band/mode data in all the currently Tracker file before updating, select *File-->Reset & Update All Trackers* from the menu bar.

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Manual Entry

Available in: Trackers

Toolbar shortcut icon

The Manual Entry function is provided for those who wish to set the band/mode status in each

tracker without requiring entry of qso data. This function is enabled or disabled by selecting *Edit-->Manual Entry* from the menu bar. When Manual Entry is enabled, the status bar at the bottom of the window will be red.

To change the band/mode status, first enable the Manual Entry function and then click on the desired square for the band/mode you wish to change. As you click on the square, the status of the band/mode square will step through Needed, Worked, Lotw Confirmed, Qsl Confirmed and Both LoTW and Qsl Confirmed.

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Tracker Reports

Available in: Trackers

The Trackers give you the ability to generate a report showing the needed, worked and confirmed status for each Tracker entity. You can generate reports for *Worked, Confirmed by LoTW, Confirmed by Qsl, Confirmed by LoTW or Qsl* and *Confirmed by LoTW and Qsl* on *Cw, Phone, Digital* and *All Modes*. The reports will be generated for the currently selected band set, HF, VHF or USER. The resulting table is shown in an editor window. You can save the data to a file or you may print the results. When saving to a file, you are asked for a name for the file. The default file extension is .txt.

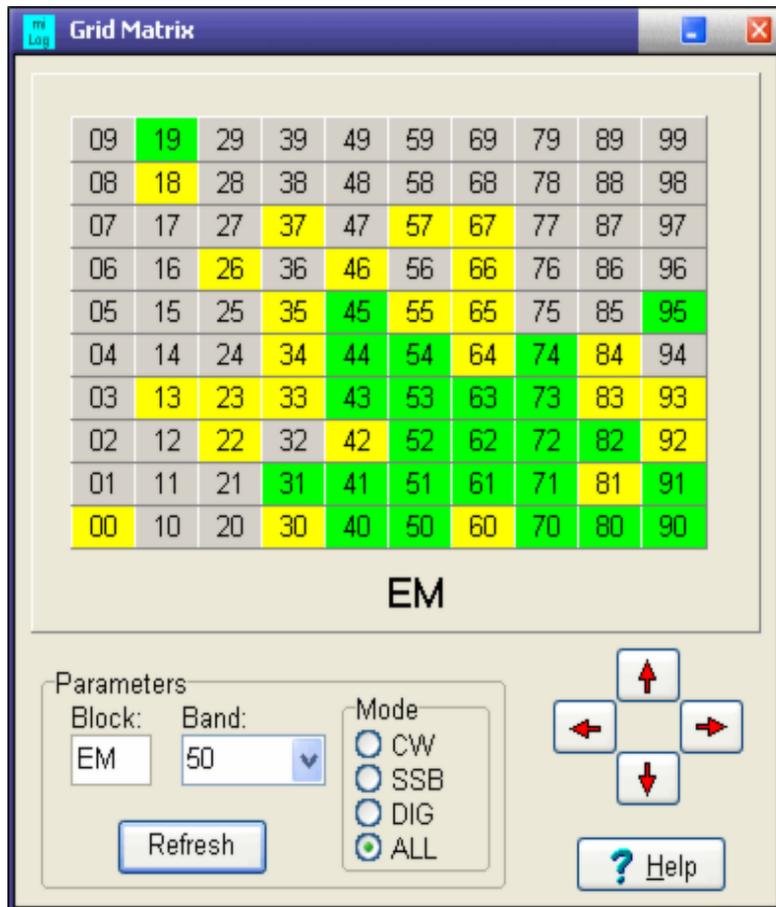
	160	80	60	40	30	20	17	15	12	10	SAT
Abu Ali	-	-	-	-	-	-	-	-	-	-	-
Afghanistan	-	-	-	-	-	-	-	-	-	-	-
Agalega & St. Brandon	-	-	-	-	-	-	-	-	-	-	-
Aland Island	-	-	-	X	-	-	-	X	-	-	-
Alaska	-	-	-	X	-	X	-	X	-	X	-
Albania	-	-	-	-	-	-	-	-	-	-	-
Algeria	-	-	-	X	-	-	-	-	-	X	-
American Samoa	-	-	-	-	-	-	-	X	-	X	-
Amsterdam & St. Paul Island	-	-	-	-	-	-	-	-	-	-	-
Andaman & Nicobar Is	-	-	-	-	-	-	-	-	-	-	-
Andorra	-	-	-	-	-	-	-	-	-	-	-
Angola	-	-	-	-	-	-	-	-	-	-	-
Anguilla	-	-	-	-	-	X	-	X	-	X	-
Annobon Island	-	-	-	-	-	-	-	-	-	-	-
Antarctica	-	-	-	-	-	X	-	-	-	-	-
Antigua & Barbuda	-	-	-	X	-	X	-	X	-	X	-
Argentina	-	-	-	X	-	X	X	X	-	X	-
Armenia	-	-	-	-	-	-	-	-	-	-	-
Aruba	-	-	-	X	-	X	X	X	X	X	-
Ascension Island	-	-	-	-	-	-	-	X	-	X	-
Asiatic Russia	-	-	-	X	-	X	-	X	X	X	-
Auckland & Campbell Islands	-	-	-	-	-	-	-	X	-	-	-
Austral Is	-	-	-	-	-	-	-	-	-	-	-

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Grid Matrix

Available in: Logbook + Trackers

The Grid Matrix display shows a block of 100 grids at a glance. Open this display by selecting *View-->Grid Matrix* from the menu bar. This matrix display is very useful to get a visual picture of the grids worked over a large area. To select the block, enter the first two letters and click on the *<Refresh>* button or click on the arrow buttons to move to an adjacent block. To view a different band or mode, select the band or mode of choice and the display will be updated with the new band or mode. The color coding is different from the various trackers to allow easy viewing of text on the color. Yellow is for worked and green is for confirmed.



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Rtty & Psk

Psk & Rtty Operation

The RTTY module of miLog uses your computer's sound card and is designed to work with the MMTTY Engine by JE3HHT. A link to the MMTTY site is available on the miLog web site at www.milog.com. Be sure you download the ENGINE, not the stand alone MMTTY program. After you have downloaded the engine, you must unzip it into your miLog folder (directory). The default is Program Files\miLog. See your radio manual or the MMTTY web site for interfacing your radio to your sound card.

The PSK module of miLog uses the WinPsk DLL by AE4JY and the ActiveX component from WA0TTN. The PSK drivers are included with miLog and you are asked if you want to install these drivers the first time you open the PSK module. Just follow the instructions in the Installer.

The PSK / RTTY Interface contains many features to make operating as simple as possible. Some of these features are 8 *macro buttons*, squelch setting, type ahead buffer, *Click-to-work*, *Auto Call Lookup* as well as standard RTTY functions such as Unshift on Space, Mark Frequency, Shift and Baud and standard PSK functions as selecting the receive channel, AFC mode and range as well as the PSK mode. There are also features to allow you to capture data and view past capture files.

Starting the PSK / RTTY modules can be done by clicking on the *Psk/Rtty Panel* in the *Control Panel* or by selecting *View--> Psk/Rtty* or pressing *<Ctrl-Y>* in most of the major windows. If you have installed the MMTTY engine and the PSK drivers correctly, the module window should appear. If you selected RTTY as the mode you should also see the MMTTY tuning window.

There are two main windows in the Psk/Rtty modules. The upper one is labelled Incoming and is where received data is displayed. The lower window is where you enter text to be transmitted.

To learn how to set up your radio for PSK / RTTY and for help on receiving PSK / RTTY signals, see the *PSK Receiving* or *RTTY Receiving* topics. For information regarding PSK / RTTY transmission, see the *Transmitting* topic.

There are several features in the Psk/ Rtty modules to make operating as easy as possible. One is the *Click-to-Work* feature which will automatically start a log entry in the contest or logbook modules by simply double-clicking on a call in the Incoming window. Another is the *Auto Lookup* feature which will automatically lookup information on the call you click on and display it in the Station Information window.

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Psk & Rtty Macros

Available In: Psk + Rtty

Programming the Macro buttons

There are two ways of programming the Macro buttons. The simplest way is to right-click on the desired button. An alternative is to select *Edit-->Macro Buttons* from the menu bar.

Call Station feature

This feature is designed to make answering a station as simple as possible. The first step is to enter your call in the My Call box. You can either type in the call of the station to call or you can just click on the call in the Incoming window. When you are ready to call, click on the *Call Station button* or press *<Alt-C>*.

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Psk & Rtty Options

Available in: Rtty + Psk

Click-To-Work



Toolbar shortcut icon

This feature allows you to simply click on a call in the Incoming window and a qso entry will automatically be started. If a contest module is open that supports Psk or Rtty contacts, the qso will be routed to it otherwise the qso is routed to the *Logbook* module. This feature is toggled on and off by selecting *Options-->Click to Work* on the menu bar or by pressing *<Shift-Ins>*. When enabled, "Click-To-Work" will appear in the status bar at the bottom of the window.

Auto Lookup

This feature, when enabled, will automatically look up data on a call that you click on in the Incoming window and display the data in the Station Information window and update the various tracker modules to show data for this call. This feature is toggled on and off by selecting *Options-->Auto Lookup* from the menu bar.

Clear Outgoing window after Tx

This feature, when enabled, will delete all text from the Outgoing window when switching back to receive from transmit.

Rx Scrollback

This feature, when enabled, will allow you to scroll back through received text in the Incoming window. It is recommended that you use the Incoming History function instead of scrolling back the Incoming data.

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Rtty Receiving

Setting the Parameters and your radio

The first step is to set the filter parameters using the Mark Freq, Shift and Baud controls. The standards in use on the amateur HF bands are Mark Freq of 2125Hz, Shift of 170Hz and Baud of 45.45. If you are using AFSK into the mic jack and have your radio set for LSB then you will want to use a lower Mark Frequency, such as 915Hz or 1000Hz.

Next tune your VFO to an empty area of the band and set the audio level with the volume control so that noise appears just above the bottom of the upper left panel of the tuning display. Now set the IF Shift or Passband tuning on your radio so the noise shown in the tuning window is centered on the vertical line. This ensures the passband of your receiver is centered in the RTTY filters. If your radio is able to use a narrow CW filter while in SSB, be sure it is selected when you make this adjustment. Now set the squelch setting by rotating the SQL Level control

counter-clockwise until you start to see gibberish on the screen and then rotate the control clock-wise until no more random characters appear.

Tuning in an RTTY signal

You are now ready to tune in some RTTY signals. MMTTY has the classic XY oscilloscope tuning display in the upper right panel of the display. This both the quickest and most accurate method for tuning an RTTY signal. Tune through the Rtty signal until the pattern shows lines both vertical and level. You are now correctly tuned in and you should see text showing in the Incoming window.

Receiving

There are several options that control how incoming text is displayed. If you have properly tuned in an RTTY signal but only see gibberish on the screen, try clicking the REV button. This reverses the mark and space frequencies, such as required when sending or receiving using USB. If you are still seeing gibberish, you may have to change the Shift setting. If the text is all numbers and punctuation marks, click on the FIGS button to force a return to Letters mode. Depressing the UOS button (Unshift On Space) will force a return to Letters mode after each space. This applies to receive and transmit. If the station you are receiving is drifting in frequency, you can depress the AFC button (Automatic Frequency Control) to allow MMTTY to automatically track the drifting station.

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Psk Receiving

Setting the Parameters and your radio

The first step after opening the PSK module is to select the sound card to use for PSK by selecting *Edit-->Select Soundcard* from the menu bar. Most uses will enter -1 to allow the driver to automatically detect the sound card. If you have more than one sound card, enter the card number or PCI slot number, depending on your computers configuration. Now set the display mode to Spectrum. Next tune your VFO to an empty area of the band and set the audio level with the volume control so that noise appears just above the bottom of of the tuning display. Now set the IF Shift or Passband tuning on your radio so the noise shown in the tuning window is centered on the vertical line. This ensures the passband of your receiver is centered in the PSK filters. If your radio is able to use a narrow CW filter while in SSB, be sure it is selected when you make this adjustment. Now set the squelch setting by rotating the SQL Level control counter-clockwise until you start to see gibberish on the screen and then rotate the control clock-wise until no more random characters appear. Next change the tuning display to Waterfall and you are ready to start receiving PSK signals. You may choose to use your normal SSB filter when operating PSK as it allows you to move from signal to signal just by clicking on the tuning display but you may want to use a narrow filter during Qsos or during periods of high QRM or noise.

Tuning in an PSK signal

Signals that are present in your receiver will show as spikes in the Spectrum display mode and as solid blue lines when the display is in Waterfall mode. Simply click on the signal you wish to receive. The audio frequency of the received signal will be displayed in the box to the right of the tuning display. If all you see after tuning a signal is gibberish try selecting a different PSK mode using the Mode control.

AFC Operation

The PSK module has a build-in Automatic Frequency Control feature that can be used to stay

centered on the receive signal even if it drifts in frequency. Depress the AFC button to enable this feature and set the AFC Range to the desired capture range.

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Psk & Rtty Transmitting

Transmitting

miLog has several different PSK / RTTY transmitting modes. The simplest method is to send text in real-time. Do this by clicking on the Tx / Rx button or pressing Alt-T and just start typing in the Outgoing window. Click on the Tx / Rx button or press Alt-R when your transmission is finished. If you have entered text faster than it is being sent, miLog will finish sending the text before switching back to receive. To force miLog into receive mode, even with unsent text, click the TxRx button a second time. The current transmit/receive status will be shown next to the TxRx button.

You can also start entering text in the Outgoing window while receiving. Entered text will not be sent until you click the TxRx button. After entering the transmit mode, you may still enter text while previously entered text is being sent.

The PSK and RTTY modules each have eight separate Macro buttons which can be programmed with commonly sent text. You can either send these Macro messages immediately by holding down the Shift key while clicking on the button or just enter the Macro message to your outgoing text by just click on it.

If the current transmit mode is Wait for Buffer and you enter text into the Outgoing window manually or by clicking on a Macro button the transmit mode will automatically change to Transmit.

Transmit modes

There are two different transmitting modes. One is Wait for Buffer and the other is Transmit. These modes are automatically set and are displayed next to the TxRx button. The Wait for Buffer mode will send all characters currently in the transmit buffer and automatically switch to receive after all characters have been sent. If in the Transmit mode, transmission will continue until you click on the TxRx button at which time the mode will switch to Wait for Buffer and then switch to receive when all characters have been sent. Clicking on the TxRx button while in Wait for Buffer mode will abort the transmission immediately and any characters left in the transmit buffer will be lost.

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Capturing Psk & Rtty Data

Available in: Psk & Rtty

The Psk and Rtty modules have the ability to capture all incoming data to a text file.

Starting the capture process



Toolbar shortcut icon

To start capturing data, select *File -> Start Capture File* from the menu bar or click on the toolbar icon, enter a filename when prompted and you are all set. All incoming data will be saved to the capture file. While capturing is in progress, the capture file name will be

highlighted and shown at the bottom of the window.

Ending the capture process



Toolbar shortcut icon

To stop capturing, select *File-->Close Capture File* on the menu bar or click on the toolbar icon. When you close the capture file, you will have the option to view the file you desire.

Viewing a capture file



Toolbar shortcut icon

If you wish to view the capture file at a later time, you may do so by selecting *File-->View Capture File* from the menu bar and providing the filename when prompted to do so. The captured data will be shown in an editor window which allows you to make any changes or notations you wish and then save the file with your changes.

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Contesting

General Contesting Information

miLog has built-in support for most major contests. Contest modules are contained in the main program and do not require any preconfiguration to use them other than some default settings for your station configuration. The miLog contest modules contain many powerful features to help maximize your contesting efforts. These include dual-radio color-coded *Band Map*, color-coded Dx cluster spots, *partial call* checking, *multiplier/station map*, *zone/state/section map*, and many others. miLog also supports networking multiple computers for multi-station operations. Networking features include a *Messenger* for sending messages between stations and a *Position Data* display which shows the frequency and mode of all stations.

All contest modules are accessed by clicking on either the Contesting panel in the *Control Panel* or by selecting *View-->Contest* from the menu bar in most of the main windows. You will be prompted for the desired contest or to set contest defaults. Start by clicking on the Set Contest Defaults button and the *Contest Defaults* window will appear. This window is where you configure networking for muti-station operation and default information for creating Cabrillo files after the contest. When you are finished setting the defaults, click on the *OK* button and then select the desired contest from the list. After choosing a contest, the selected contest module will appear on your screen. In addition to using the mouse and menu selections, most of the features of the contest modules can be selected by special keystrokes which eliminates the need to always reach for the mouse. All of the contest modules operate in the same way so generic descriptions are presented in the related help topics.

See the topics below for more detailed information.

Setting the Contest Defaults

Operating Options

CO and S&P modes

Creating a New Contest Log

Opening an Existing Contest Log

Entry Panels

Entering and Editing Qsos

Radio Frequency and Antenna Headings

Cw, Rtty and Voice Messages

Contest Cluster Spots

Station & Multiplier Map

Zone, State, Sections Map

Partial Calls

Band Map

Master Database

Rate Chart

Cabrillo Files

Exporting to Main Log

Talk Messages

Position Data

Refresh From Master

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Setting the Contest Defaults

The settings in this area are self-explanatory and are used for generating contest exchanges and for providing default information when creating Cabrillo log files after the contest. For non-USA stations, enter DX for your section and state.

Network Configuration

Setting up miLog for networked operation over a LAN or via the Internet is very easy. There are no separate applications to run or Microsoft utilities to download and install. Follow the steps below to set up networking:

Step 1: Designate one of the operating positions as Master and the others as Slave. The one designated Master is the computer that will be handling all the Dx Cluster connections and overseeing the operation of the network. The Master is NOT a server. Complete log files are maintained on each computer in the network. This computer should have a UPS power source in case of power outages during the contest.

Step 2: Set number of operating positions on each computer.

Step 3: Set the operating position number of each station. The Master should be Position 1.

Step 4: Set the network IP address of the Master. If you are networking over the Internet and the Master position does not have a fixed IP address, you can find the address by opening a DOS window (Command prompt) on the Master computer and entering the command "ipconfig" which will return the network settings.

NOTE: miLog networking **requires TCP/IP** protocol to be installed on all computers. Other protocols such as NetBUI will not work.

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Operating Options

Auto Parse Exchange

Checking this option will enable Auto-Parsing of contest exchanges, such as Field Day and Sweepstakes, eliminating the need to tab through the fields.

Skip Signal Reports

If this option is checked, signal reports will be skipped when tabbing forward through the fields. If you need to change one of the signal reports, they can be accessed by pressing <Shift-Tab> and backing into them.

On-The-Fly Checking

Checking this option will enable On-The-Fly dupe checking and country decoding, eliminating the need to press the tab key or Space bar to check the call.

Use Master Database

This option allows you to use data from past contests to pre-fill in exchange data. Contest data is added to the Master Database using the File|Add Log to Master Database in each contest module.

Real-Time Backup

This option allows you to keep a real-time backup of contest Qsos while the contest is in progress. The backup file can be located on any local or network drive. Note that if you designate the floppy drive for your backups there will be a small delay after entering each Qso while the floppy drive is in use. If this delay is not tolerable, then designate a local or network hard drive for your backups.

Auto Spotting

When you are operating in Manual or S&P mode, this option will automatically send qsos as Dx spots to a packet cluster as they are entered into your log.

Show Partial Calls in Main Window

This option, when enabled, will show the Partial Calls list in the main window instead of in a separate window.

Show Band Map in Main Window

This option, when enabled, will show the Band Map in the main window instead of in a separate window.

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CQ & S&P modes

There are three different operating modes available in the miLog contest modules. They are Manual, CQ and S&P (Search and Pounce). Operating in Manual mode is just like using paddles or a microphone. You can either select these modes by selecting them under the Options heading on the menu or cycle through them by pressing <Ctrl-Q>. If you want to include the S&P mode when cycling through the modes, be sure to enable it by selecting *Options-->Enable Search and Pounce Mode* on the menu bar.

CQ Mode

The miLog CQ mode makes running stations a snap. If the cursor is in the Call field and nothing has been entered in the Call field, pressing <Enter> will send your CQ message. If the cursor is in the Call field and a call has been entered, pressing <Enter> will send that callsign

followed by your exchange message and then place the cursor in the next entry field. Pressing *<Enter>* again after all exchange data has been entered will enter the qso into your log, place the cursor in the call field and send your TU message. If your radio is interfaced to miLog and you QSY more than 1KHZ the CQ mode will be cancelled automatically.

S&P Mode

The S&P mode works a bit differently than the CQ mode and does take a bit of getting used to. Here is how it works: After entering a call in the call field, press *<Enter>*. If the entered call is a dupe nothing will happen but if it is a new station your callsign message will be sent and the cursor placed in the next field. Pressing *<Enter>* after entering the exchange data will send "TU" followed by your exchange message. Pressing *<Enter>* a third time will enter the qso into your log and place the cursor back in the call field. If you need to send the exchange message again you can press *<l>*.

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Creating a New Contest Log

Available in: Contests



Toolbar shortcut icon

Create a new log file for a contest by selecting *File-->New Contest Log* from the menu bar. For single mode contests you need to select the mode for the contest and the year which defaults to the current year. You will then be prompted for the directory in which to create the new log file. After the file has been created you are ready to go.

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Open an Existing Contest Log

Available in: Contests



Toolbar shortcut icon

To open an existing log file, select *File-->Open* from the menu bar or click on the File Open icon on the toolbar. When the Open File window appears, select the desired file and then click on the *<Open>* button. To abort opening a file, click on the *<Cancel>* button. miLog will remember the current log selection and will automatically load this log the next time you open that contest module.

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Refreshing Log Data

The Refresh function re-scans the current contest log to update multiplier and scoring data.

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Entry Panels

All contest modules contain two independent sets of entry fields. These can be assigned to

operate with either radio or in manual mode. You can use either set for entering qsos if operating SO2R or you can use one for editing qsos or possibly working ahead in a pileup. The initial settings of the Band Source controls will depend on your station configuration. If miLog is receiving valid data from Radio #1, the upper entry panel will default to Radio 1 or else it will be default to Manual. If miLog is receiving valid data from Radio #2, the lower entry panel will default to Radio 2 or else it will default to Manual.

To switch between the panels, press *</ns>* or *<, >* (comma). Data present in a panel is preserved when switching between panels. Also, a panel can be assigned to either Radio 1, Radio 2 or Manual by clicking on the desired selection or by pressing *<Ctrl-S>*. This can be done at any time and allows you to switch from one panel per radio to both panels on one radio, which is useful for working ahead in a pileup.

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Entering and Editing Qsos

The following system is used in all contest modules. Moving forward from field to field is done by pressing either *<Tab>* or *<Spacebar>*. Moving backwards through data fields is done by pressing *<Shift-Tab>*. When you are in the last field, pressing *<Spacebar>* will cycle the cursor back to the Call field. Press *<Enter>* to enter the qso into the log. Pressing *<Esc>* will clear all fields in the active panel and make the Call field ready for the next call.

To edit a previous qso, select it by clicking on it or scrolling to it with the Up or Down Arrow keys and then press *<Enter>* or right-click on the qso and select *Edit* on the popup menu. The qso data will appear in the current panel. Make your changes and press *<Enter>*, just like a normal qso, and the changes will be saved.

To void a qso, either click on the qso or use the *<Up-Arrow>* or *<Down-Arrow>* keys to select the qso you wish to void and press ** or you can right-click on the qso and select *Delete* on the popup menu. You will be asked to confirm removing the qso. Qsos are not actually removed from the log file but the points for that qso will be set to -1. This allows you to bring back the qso at a later time by simply selecting it for editing and proceed as normal. Qsos with a point value of -1 are not included in Dupe checking, scoring, or Cabrillo files. This method avoids the 4AM problem of "OOPS! I deleted the wrong one".

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Entering Radio Frequency and Antenna Headings

You may enter a radio frequency or beam heading into the callsign field instead of a callsign and miLog will take the appropriate action.

Frequencies must include a decimal point and a digit for 100 Hz, (ie 21295.0). After entering the frequency, press Enter and the radio selected on the active entry panel will be set to the desired frequency.

Beam headings are entered as 1-3 digit numbers. After entering the desired heading, press Enter and the rotor assigned to the current band will be commanded to turn to the desired heading. If there are multiple rotors assigned to the current band, the command will be sent to the last rotor used for that band.

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Cw, Rtty and Voice Messages

Available in: Contests

miLog has built-in voice and CW keying systems which are auto-selected for the current mode and are activated with the same Function keys so you don't have to learn different keystrokes for phone and CW. There are five primary SSB and CW/RTTY messages as well as five additional secondary messages for CW/RTTY. All messages are totally configurable by the user. The primary messages are mapped to keys F1 through F5 and the secondary messages are mapped to Shift-F1 through Shift-F5. Pressing one of these keys followed by another adds messages together.

To set your CW or RTTY messages, select *Edit-->CW/RTTY Messages* from the menu bar and the CW / RTTY Messages dialog will appear. Type in the desired message for each function. Remember to use N instead of 9 if you are entering 599 (ie 5NN). These messages are stored separately for each contest and are automatically recalled when starting that module.

Special characters are "@" and "&" for the text in the Call box, "#" for serial number insertion and "^" to insert 4-digit time (BARTG HF contest). The "@" will always insert the call and "&" will only insert the call if you are in CQ mode.

You should program your primary messages in the F1 to F5 messages and use the Shift-F1 to Shift-F5 messages for those not used often. A good example is to put "QRL?" in Shift-F5.

To record your voice messages, select *Edit-->Voice Messages* followed by the desired message and the Voice Recorder dialog will appear. Click the Start button when you are ready to begin and click Stop immediately when you are finished. Speak at a level so the level meter bounces between half and full scale. Like the CW messages, each voice message is stored separately for each contest.

If you are going to use the CQ and S&P modes, you will need to assign the CQ, Exchange and TU messages to a message number. Only messages F1 to F5 can be used in CQ mode. This applies to SSB as well as CW/RTTY. The SSB messages are those you have recorded using the built-in Voice Recorder.

You can send Cw directly from the keyboard by bringing up the Cw Keyboard window by selecting *View-->Cw Keyboard* from the menu or by pressing `<Ctrl-K>`. Cw is sent real-time as it is being typed into the window. Pressing `<Esc>` or `<Enter>` will close the Cw Keyboard window.

See *CW Keyer Setup* for information on configuring and interfacing the CW Keying interface.



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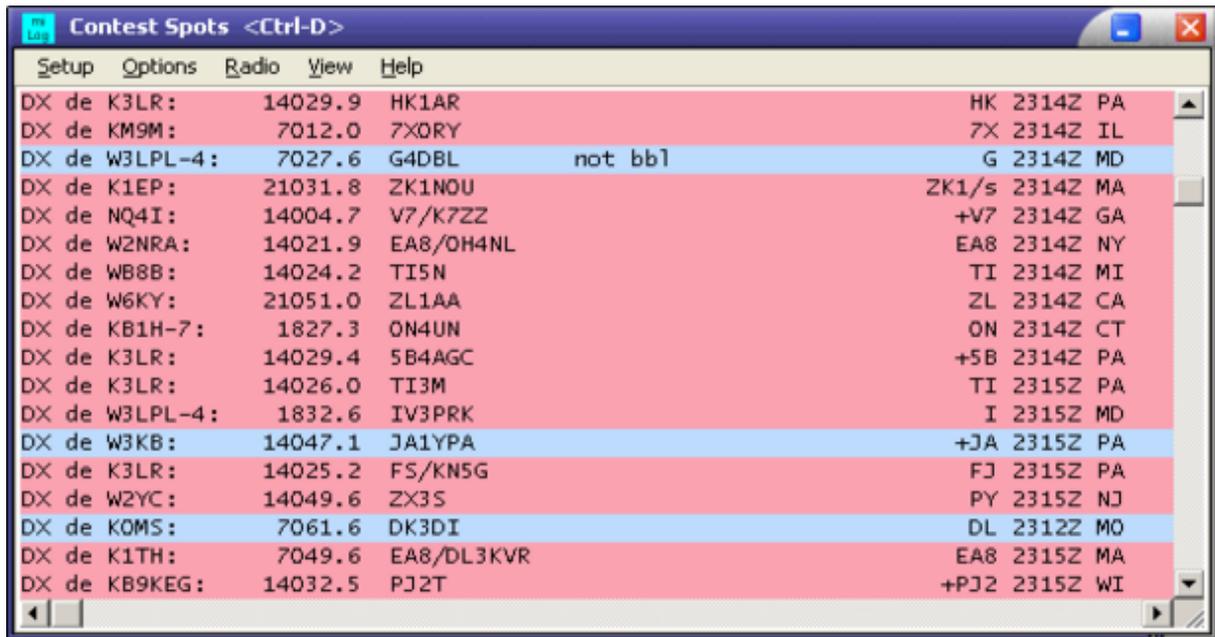
Cluster Contest Spots

Available in: Contests

The Contest Spots window operates much in the same way as the *DX Monitor* used with the DX Cluster Interface module. The main difference is only spots pertinent to the contest are displayed. To place either Radio 1 or Radio 2 on the frequency of a particular station, simply click on the station and press either <1> or <2> for the desired radio. To place the radio on the station's frequency and automatically enter the station's call in the entry fields, either press <Enter> after selecting the station or simply double-click on the spot. Which radio is tuned to the frequency depends on the setting of the Auto Route Radios option. You can choose to see spots for all bands or just the current band you are on using the *View-->All Bands* and *View-->Current Band Only* functions on the menu bar. You can select the spot window either with the mouse or by pressing <Ctrl-D> from within a contest module. This window can be resized to suit your needs.

Auto Route Radios

This option controls which radio is set to a station's frequency when either pressing <Enter> after selecting the spot or by double-clicking on it. When this option is disabled, the radio currently selected in the Contest Module will be set to the new frequency. When enabled, the radio set to the same band as the spot is the radio updated with the new frequency. If neither radio is on the same band as the spot, the currently selected radio in the Contest Module will be updated.



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Station & Multiplier Map

The Station & Multiplier Map display is a very useful feature to quickly determine on which bands and modes a station or multiplier, such as a country, state or section, has been worked. This map is located between the entry panels and the log grid. To show the current status of a station or country, just start entering either a full call or just a prefix in the Call box or select a qso in the log grid. All bands and modes on which that station and multiplier has been worked will be highlighted in green. For checking status of states or sections, enter the state or section in the appropriate field with the callsign field blank.



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Zone, State, Section Map

Available in: Contests

The Zones, States, Sections map window shows which bands on which each multiplier has been worked. Open this window by selecting *View -> Multiplier Map* from the menu bar or by pressing *<Ctrl-V>*. The type of multiplier shown in the map is automatically selected depending on the contest. This display is updated as each QSO is entered into the log and is refreshed each time a log file is opened.

The screenshot shows a window titled "Sections <Ctrl-V>" with a "View" menu. The window contains a table with columns for call sections (Sect) and multipliers (160, 80, 40, 20, 15, 10). The rows list various call sections with 'X' marks indicating their presence in the grid.

Sect	160	80	40	20	15	10
MD				X	X	
ME						
MI			X	X	X	
MN			X	X		
MO			X	X		
MS				X		
MT			X	X	X	
NC			X	X	X	
ND				X		
NE			X	X		
NFL			X	X	X	
NH			X	X		
NLD						
NLI			X	X	X	
NM			X	X		
NNJ				X	X	
NNY				X		
NT						
NTX			X	X	X	
NV		X				
OH		X	X	X	X	
OK			X	X		
ON			X	X	X	
OR		X	X		X	
ORG		X	X	X		
PAC			X			

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Partial Calls

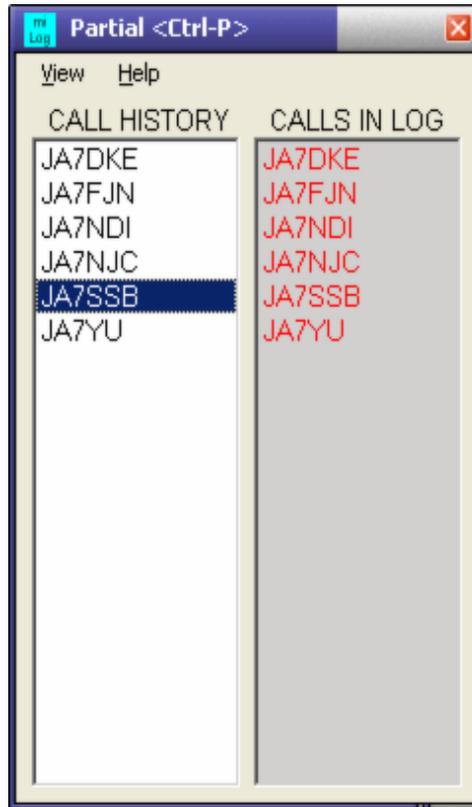
Available in: Contests

The Partial call feature allows you to enter part of a call and view all stations in your contest log that contain the partial entry. It will also, if Use Master Database is enabled, display all partial call matches with entries in your Master Database. The Partial call list may be displayed in a separate window or within the main contest window. To enable partial call checking, select *View-->Partial Calls* from the menu bar or press *<Ctrl-P>*. If you wish to include the Partial list in the main contest window be sure to select *Options-->ShowPartial Calls in Main Window* from the menu bar.

As you start typing in a call in the call field, any calls that contain matching characters will be shown in the Partial window. You can scroll through the calls in this window which will update the *Station & Multiplier Map*. This is very useful to quickly determine a station is a new one on your current band without having to wait to hear the full callsign, which we all know can take 10-20 minutes for some of those Caribbean stations.

You can move to the separate Partial window by pressing *<Ctrl-P>* and then using the Up/Down arrows to select a call. Returning to the contest module is done simply by pressing *<Ctrl-C>*. If you have opted to show the Partial list in the main window you can move to the

list by pressing *<Ctrl-P>* and return to the entry fields by pressing *<Esc>*. You can choose to search either just the current contest log or the contest log plus the general log open in the Logbook module. This option is selected with *Options-->Use Master Database*.



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Band Map

Available in: Contests

The Band Map feature of miLog displays packet spots pertaining to the contest in order by frequency and color codes them according to your needs. The Band Map may be shown in a separate window or within the main contest window, depending on the setting of *Options-->Show Band Map in Main Window* option on the menu bar. Select *View-->Contest Band Map* to open the band map window. You can move to the Band Map window by pressing *<Ctrl-A>*. If the Band Map is open in a separate window you can return to the contest window by pressing *<Esc>* or *<Ctrl-C>*. If the Band Map is located in the main contest window you can return to the entry fields by pressing *<Esc>*. To place either Radio 1 or Radio 2 on the frequency of a station, simply click on the station and press either *<1>* or *<2>* for the desired radio. To place the radio on the stations frequency and automatically enter the station's call in the entry fields, either press *<Enter>* after selecting the station or simply double-click on the spot. Which radio is tuned to the frequency depends on the setting of the Auto Route Radios option. The current frequency of each radio is shown by a colored ">". Radio 1 is green and Radio 2 is blue.

The Band Map options for the separate window are located on the menu bar in the Band Map window while options for the internal display are on Contest window menu bar under the Band Map heading.

Bands

Spots can be display for current band Radio 1, Radio 2, both radios, current radio or for all bands.

Display Modes

You can choose to show all spots or just those that are new stations or new multipliers by checking the appropriate option.

Delete as Worked

With the option checked, all stations worked will be deleted from the list. If not checked, they will remain in the list but the color will be changed to green.

Add Own Qsos

This feature can be useful during search and pounce operation. It will display the call and frequency of each station as you enter them into your log. The next time you tune across this station a quick glance at the band map display will save you time since it will show the station has already been worked.

Auto Route Radios

This option controls which radio is set to a stations frequency when either pressing *<Enter>* after selecting the spot or by double-clicking on it. When this option is disabled, the radio currently selected in the Contest Module will be set to the new frequency. When enabled, the radio set to the same band as the spot is the radio updated with the new frequency. If neither radio is on the same band as the spot, the currently selected radio in the Contest Module will be updated.

Frequency	Call Sign
1815.0	SP3KEY
1818.9	G6PZ
7028.5	HA3MQ
7029.9	IO3P
7031.1	SN2B
7034.6	YZ1U
7039.1	J7OJ
7040.1	HG6N
7050.5	YT7N
14002.5	KP3/N2BA
14046.4	P49Y
14049.1	J37T
14049.7	ZX3S
14051.3	HQ9H
14055.5	V31PP
14063.0	6V6U
14083.9	XE2MX
21015.7	AL7HW
21038.6	V7/K7ZZ
21048.7	ZL1BYZ
21050.0	VK8AV

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miLog gives you the ability to create a Master Database of past contest qsos. This database can be used for partial call checking and for pre-filling in some exchange data.

Create a Master Database using the *File-->Create Master Database* function on the menu bar. After selecting or confirming the filename, you are ready to load past contests into the database. You can either use one database or setup separate ones for each contest.

Add data from a contest to the database by first opening the module for that contest and loading the contest log file you wish to add. After the file has loaded, select the *File-->Add Log to Master Database* command from the menu bar and the qso data in the open contest log will be added to the master database.

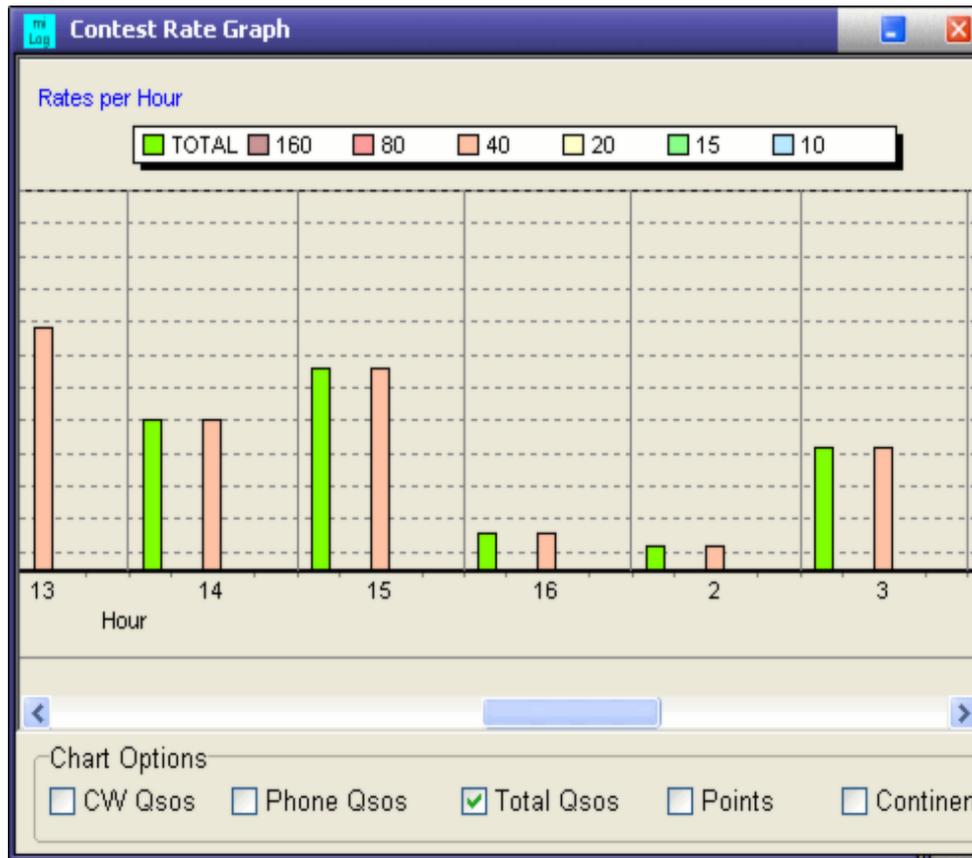
To open a Master Database, select *File-->Open Master Database* on the menu bar and then select the database you wish to use. The database name is saved when you exit miLog and will be automatically loaded each time you open a contest module.

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Rate Graph

Available in: Contests

The Rate Graph in miLog is a very powerful tool for evaluating contest performance. Open the Rate Graph window by selecting *View-->Rate Graph* from the menu bar. The chart can be configured to show any combination of QSO, Point, Continent and Band totals for each hour of the contest. Data may be added to or removed from the chart by simply clicking on the item in the Chart Options box at the bottom of the window. The chart is moved back and forth by using the slider control at the bottom of the chart. The chart may be expanded by dragging the sides or bottom of the window to the desired size.



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Make Cabrillo Logs

Use this function after the contest to generate Cabrillo format logs for submission. The log generator will prompt you for the category, band, power, etc that pertain to that particular contest. After the log file has been generated, it is displayed in a text editor window where you can make any desired changes and then save it to a filename of your choice.

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Exporting to Main Log

The Import to Main Log function will add your contest log to the main log currently open in the Logbook module. Before the log is imported, you will be asked to set or confirm the settings of the User Options to be set for each qso as it is added to your main log.

The Import Options window is used to set how you want the custom user options to be configured when you import a contest log into your main log. You will be asked to change or confirm these options each time you import a log. Click on *OK* to start importing the contest log or click on *Cancel* to abort the operation.

Export Options [X]

Mark the options the way you want them to appear in Qsos imported from this contest log

Prop Mode	Century Club	Contest	GroupBox1
<input type="checkbox"/> Bureau	40 CCN CW Net	E Skip	Arrl 10
<input type="checkbox"/> via CBA	40 RTTY	Tropo	Arrl 160
<input type="checkbox"/> Mobile	40 SSB Early	FAI	SS
<input type="checkbox"/> Capital	40 SSB Late	Meteor	Arrl DX
<input type="checkbox"/> QRP	80 CW	EME	CQWW
<input type="checkbox"/>	75 SSB Early Net	F Layer	Field Day
<input type="checkbox"/>	75 SSB Late Net		IARU
<input type="checkbox"/>	160 SSB Early Net		RDX
<input type="checkbox"/>	160 SSB Late Net		CQ 160
<input type="checkbox"/>	HHH		All Asian
<input type="checkbox"/>	160 CW		

Tx Power: 1000

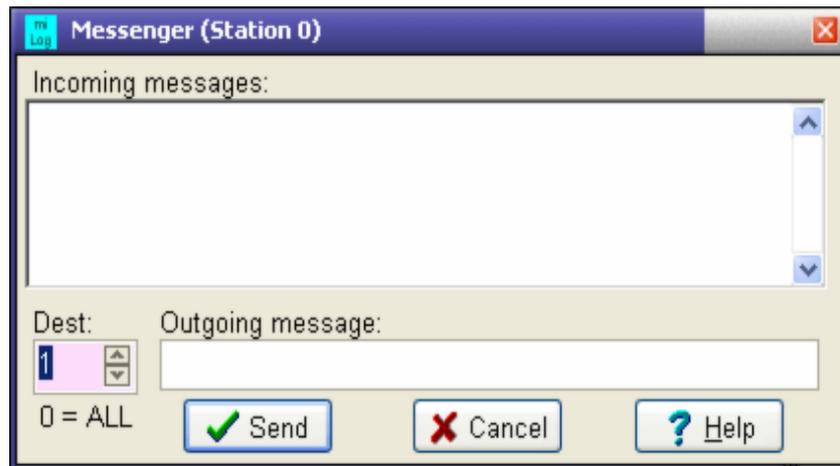
Note:

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Network functions

Talk Messages

The Talk function is used to send messages between stations in a multi-multi environment when the client/server feature of miLog is in use. To show the Talk window, select *View-->Talk* on the menu bar or press *<Ctrl-T>*. Send a message by entering the destination station number followed by your message. Send the message by pressing *<Enter>* or clicking on the *Send* button. This window will automatically appear when an incoming message is received.



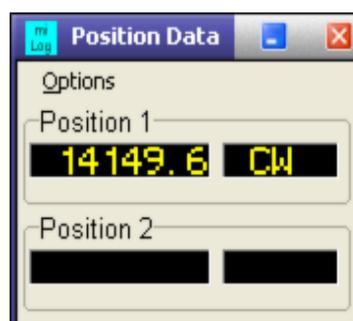
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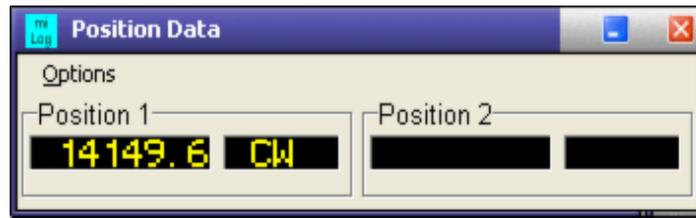
Position Data

The Position Data feature enables all operators of multi-station operations to see the frequency and mode of all stations on the network. This is very useful for passing multipliers to other bands. Also, you can send Talk messages to any station simply by clicking on the data display for that position.

The displayed data is also color-coded to indicate the current operating mode for each operating position. If the operating position is in CQ mode the data is display in green and is displayed in yellow when that position is in Search and Pounce.

There are several options available to control how the data is displayed. You can choose whether or not to show the mode. You can also choose to show the positions vertically or horizontally, whichever orientation best suits your screen setup.





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Refresh from Master

The Refresh from Server function updates your local log from the one on the network Master computer. No qsos are deleted by this function.

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ShackLAN

Shack-LAN Radio Interface

The Shack-LAN Radio Interface is the heart of a LAN controlled shack. It provides the ethernet interface to your radio and controls all your antenna switching, allowing up to 5 separate antennas per band. It also includes an internal level converter for radio that do not directly use RS-232 levels, such as Icom, FT840-FT-890, etc.

The Radio Interface has a multi-purpose LED on the front panel which provides a visual indication of the Shack-LAN status. The different LED modes are:

Steady Green = Normal operation

Steady Red = A connection to the Filter, Antenna switch or Relay Driver has failed.

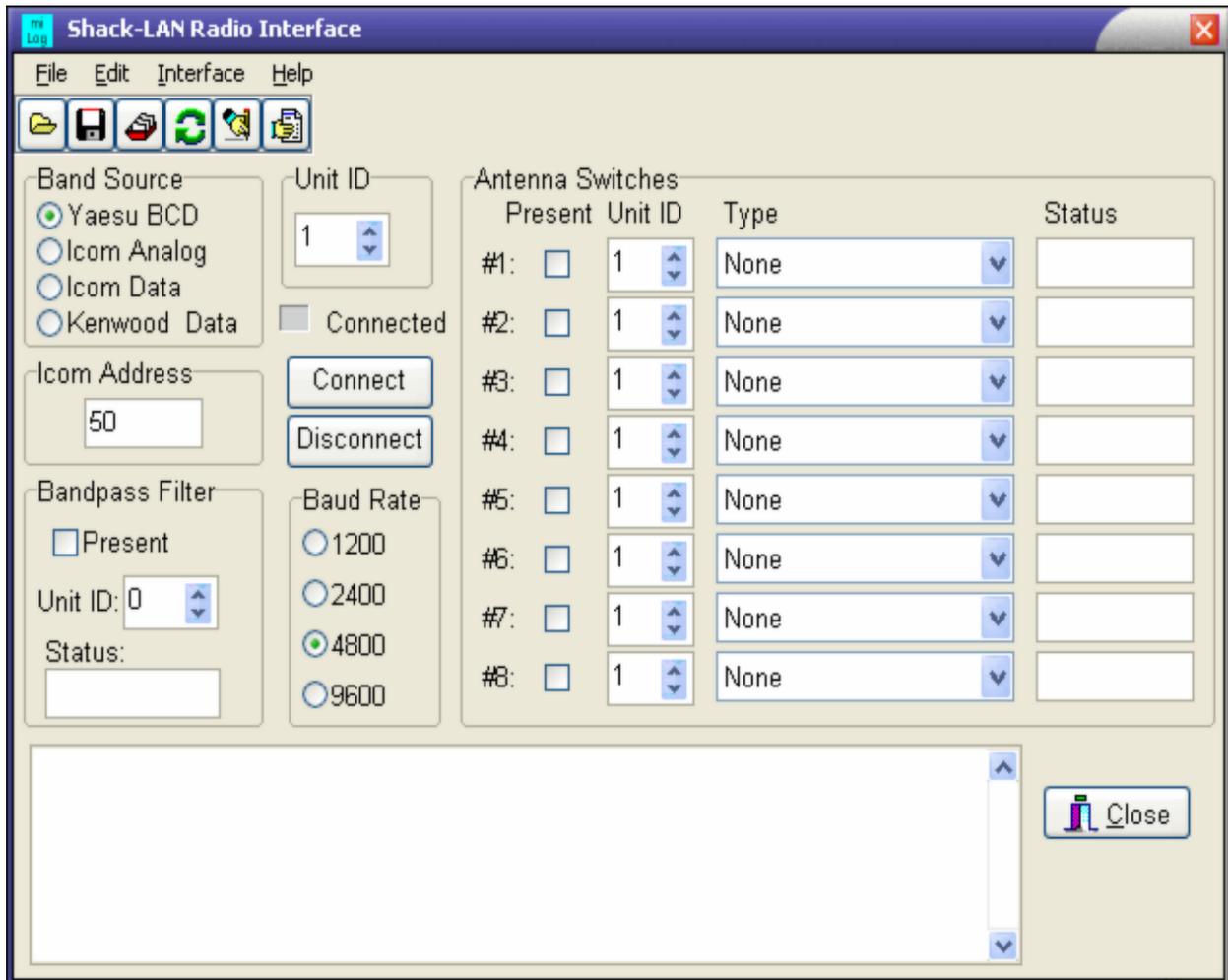
Blinking Red = Invalid configuration

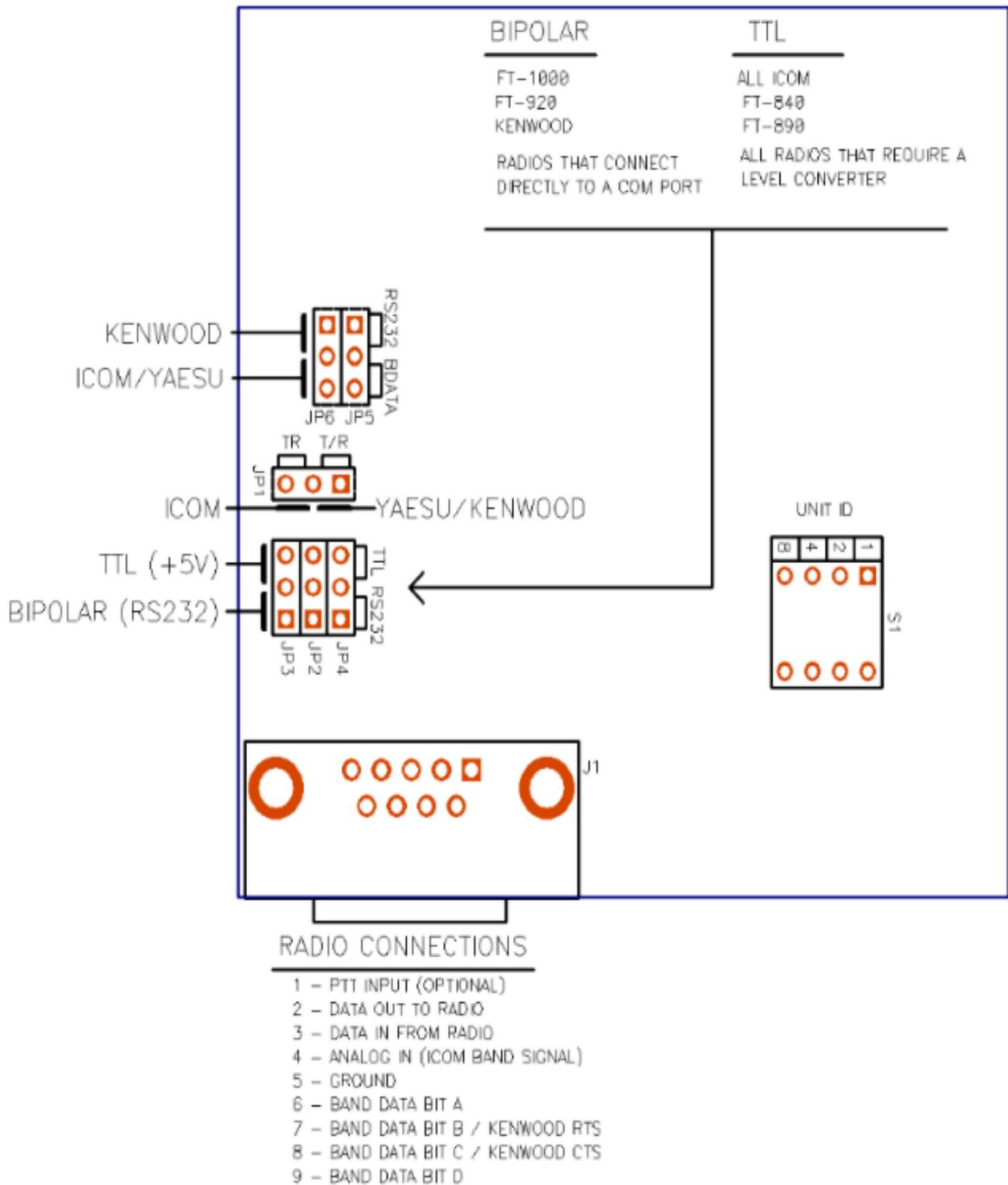
Blinking Yellow = Band or Antenna conflict between Radio #1 and Radio #2.

Configuring the Radio Interface is simple and straight forward. All communication is via your network so be sure your network is functioning and the Radio Server is connected to the network. The only hardware configuration you need to do to the unit is to set the jumpers on the board inside the case to match the data levels required for your radio. See the drawing at the bottom of this page+.

The steps to setup to unit's operating parameters are:

- 1 - Enter the ID number of the Radio Interface in the Unit ID Box. Default is 0.
- 2 - Click on the Connect button to connect to the unit.
- 3 - Select Radio 1 or Radio 2 in the Interface Type box.
- 4 - Select the Band Source to match your type of radio.
- 5 - Select the Baud Rate to match your radio.
- 6 - If you are not using the Shack-LAN Bandpass Filter unit, uncheck the Present option in the Bandpass Filter box. If the Bandpass Filter unit is present, check the Present option and set the Unit ID to match the Filter unit.
- 7 - For each Shack-LAN Antenna Switch and Relay Driver in your system, check the Present box and set the Unit ID to match each unit in your system.
- 8 - Click the Save button. If everything was OK, you will see a message in the Message window.
- 9 - To check the configuration stored in your Radio Server, click the Refresh button and all controls will reflect the data programmed into the unit.





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Shack-LAN Relay Driver

The Shack-LAN Relay Driver provides a generic interface to allow you to use your own antenna switching systems with the Shack-LAN Radio Server. It provides 32 outputs that directly provides +12vdc to each relay at up to 500 milliamps each. The Relay Driver supports up to 8 antennas per band for up to 6 radios. Each antenna can be configured to use any combination of outputs. Typical applications include automating remote antenna switches, switching 4-squares, etc.

The Relay Driver provides Band and/or Antenna conflict prevention when using it with two radios. If a conflict

occurs, the first radio requesting the antenna will keep it and all other requests for the same antenna will be ignored. This prevents more than one radio being switched to the same antenna at the same time.

BOARD CONFIGURATION: There are a few settings to be made on the board using the dip switch. The first thing to do is set the Unit ID number. If there is only one Relay Driver in your system, leave at 1. The unit ID is set using switches 1-4, weighted 1, 2, 4, 8. The next step is to set the type of conflict prevention you desire. For Band conflict, set switch 7 to on. For Antenna conflict, set switch 8 to on.

You will need to provide +12 power to the unit and be sure your power source has enough current capacity to power the maximum number of relays you will have powered at one time. Connections for the relays are made to the four 9-pin connectors along the edge of the board using the connectors provided with the unit.

ANTENNA CONFIGURATION: Setting up your antenna switching is simple and straight forward. It is suggested you first make a chart of which relay is energized for each antenna / radio combination. Proceed as follows:

- 1 - Set the Unit ID and click the Connect button. If successful, you should see a connect message in the message box.
- 2 - Select the Radio you wish to configure.
- 3 - Select the Band and Antenna you wish to configure.
- 3 - Click on the relay buttons to set a relay on or off. If the button is depressed, the relay will be energized for that antenna.
- 4 - Upload the new data for that radio to the interface. Wait for the success message to appear.
- 5 - Repeat steps 3 and 4 for each radio.
- 6 - When all antennas have been configured, click on the Save button to load the configuration into the unit. If successful, messages will appear in the Message window.

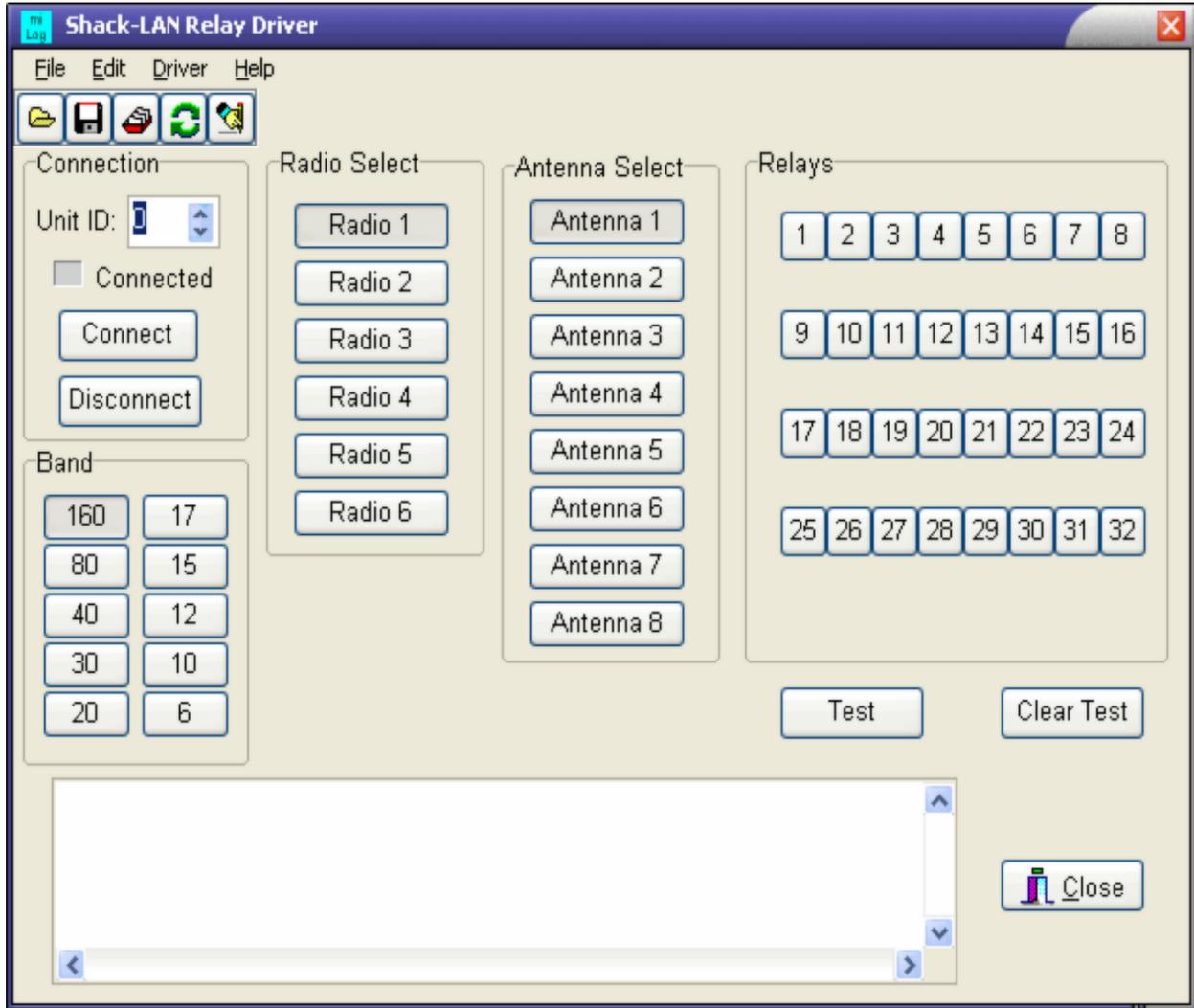
CUSTOM SOFTWARE: If you wish to write custom software to control the Shack-LAN Relay Driver, the pertinent information is listed below.

IP address = 192.168.0.192 + Unit ID number
Radio 1 port = 9000
Radio 2 port = 9001

Antenna command = Bbb-Aa-Rr<LF><CR>
bb = Band (16, 80, 40, 30, 20, 17, 12, 10)
a = Antenna (1, 2, 3, 4)
r = Radio (1, 2)

TCP sockets are operated in ASCII mode the the <LF> and <CR> are required at the end of the command string.

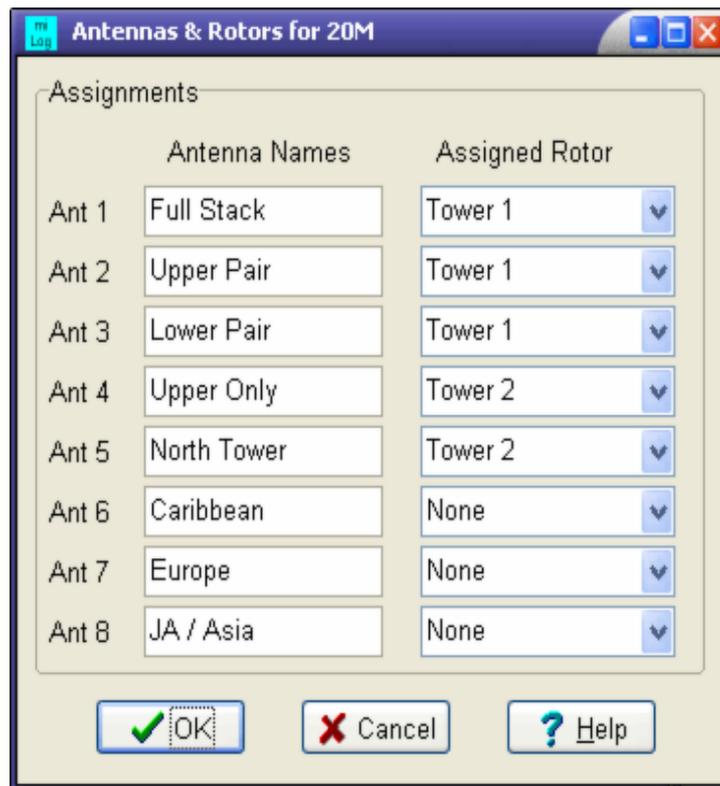
Example: B16-A2-R1 = 160M, Antenna 2, Radio 1



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Antenna Control

This window is where you assign labels for the antenna selection buttons and assign rotors to each button. These assignments need to be made for each band. Since there is limited space on the buttons for the antenna labels you need to pick labels that fit within the buttons. Leave the antenna name blank for any unused buttons and they will not appear in the Antenna Switch Control window.



	Antenna Names	Assigned Rotor
Ant 1	Full Stack	Tower 1
Ant 2	Upper Pair	Tower 1
Ant 3	Lower Pair	Tower 1
Ant 4	Upper Only	Tower 2
Ant 5	North Tower	Tower 2
Ant 6	Caribbean	None
Ant 7	Europe	None
Ant 8	JA / Asia	None

OK Cancel Help

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