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**MultiComm Host** 

### **MultiComm Host Help**

Help on using MultiComm Host is available at any time by selecting "Help Topics" from the "Help" menu on the main MultiComm Host window or by pressing the **F1** key. When Help is open, you can access the Table of Contents by clicking on the "Help Topics" button or you can search for a particular keyword by clicking the "Help Topics" button and then using the "Index" or "Find" tabs. Many of the graphics are interactive, allowing you to click on a section of the graphic for more information on that feature. For general help with Windows, click on the Windows Start button and select "Help".

The following Help Topics on MultiComm Host are available:

- Overview of MultiComm Host
- Setting Up MultiComm Host
- Starting MultiComm Host for the First Time
- MultiComm Host Controls for VHF
- MultiComm Host Controls for HF
- HF Packet Session
- Logging Programs
- Rig Control
- Troubleshooting
- Technical Support
- Windows Help

### **Overview of MultiComm Host**

For Windows 95, Windows 98, Windows NT, and Windows 2000

MultiComm Host is a 32-bit MFJ Host Mode based Terminal program. Host Mode allows the TNC to communicate with computer software that is more sophisticated than standard terminal programs. MultiComm Host takes advantage of true multitasking in Windows 95, Windows 98, Windows Me, Windows NT, and Windows 2000 and uses standard Windows commands for ease of use. It allows for multiple streams on multiple ports using VHF Packet and HF Non-Packet modes. You can use a second packet-only modem or AGW Packet Engine with MultiComm Host. HF modes include CW, RTTY, DSP-RTTY, ASCII, AMTOR, PACTOR, NAVTEX, FEC, PSK31, and Listen AMTOR. Features of MultiComm Host include:

- Multi-stream multi-port. Up to 26 streams per packet port, each in a different window
- □ Switch between streams with a click on the mouse
- A separate window for non-packet HF modes, from CW through NAVTEX, with mode selection at the click of a mouse
- Basic Radio Control
- □ User defined macros
- Text and binary file transfers with YAPP. YAPP is a file transfer protocol that allows you to send binary files via the TNC.

- □ User-defined colors and fonts
- Supports PSK31 using your TNC for keying
- □ Interoperability with Log Windows and Dx4Win.
- □ Supports COM1 to COM35
- □ Supports two TNCs
- □ Saves QSOs (contacts made with another station) to a file that is compatible with Microsoft Word<sup>TM</sup>

MultiComm Host will support all MFJ TNCs with the BLP protocols. For MultiComm Host to run on your system you will need Windows 95, Windows 98, Windows Me, Windows NT 4.0, or Windows 2000.

If you are not familiar with Windows and need more information on it, check your Windows Help, accessible from the Windows Start menu. If you need more information on your TNC, consult your MFJ TNC Owners Manual.

### Installation of MultiComm Host

If you received a CD:

- 1. Insert the CD into your CD drive, and wait for the AutoRun program to start.
- 2. Follow the instructions on the screen to install MultiComm Host.

If you received diskettes:

- 1) Place disk one in drive A: (or drive B: depending on your system)
- 2) Click on the Start button to begin
- 3) Click on the Run option
- 4) Type "A:\setup.exe" (or "B:\setup.exe") and press the OK button. This will begin the installation of MultiComm Host

Run	? ×
2	Type the name of a program, folder, or document, and Windows will open it for you.
<u>O</u> pen:	a:setup.exe
	Run in Separate Memory Space
	OK Cancel <u>B</u> rowse

- 5) Follow the directions for the setup. It will prompt you for information you need to complete installation.
- 6) After installation is complete, double click on the MultiComm Host icon to begin the program.
- 7) You will be prompted to enter your Call Sign and the Serial Number and Activation Key you received on registering your software. You are able to register up to 10 different call signs. You will also need to select the registration set. The registration set is used if more than one Call Sign is used. To select which registration set to use, click on the left and right arrow keys. You will need to enter your Call Sign, Serial Number and an Activation Key to access

the full capabilities of MultiComm Host. **NOTE**: Activation key is case sensitive.

Registration	1 Information	×			
<u>Eile E</u> dit					
This pa	ge registers and shows the information for your version of the program				
Cal	I: W4PC Required Registration Set: 2				
Serial Numb	er: MM23458800081752282				
Activation K	ey: XniNFp+1WiRc+				
	The above field is case sensitive, when entering the key use upper and lower case letters				
	OK Cancel Apply				
or ha	If you have not purchased a serial number and activation key and wish to we purchased this from a dealer with a serial number and need an activation key Contact MFJ at 800-647-1800 or email sales@mfjenterprises.com				
	Show this window at startup				

- If you don't have a Serial Number and Activation Key, you will still be able to run the program but only in Demo Mode. Demo Mode allows you to operate packet only using single port, multi-stream without any of the advanced features of the program. Click on the Demo Mode button to continue.
- 8) You will be prompted to enter your computer's COM port and baud rate for the TNC. This allows you set which COM port your TNC is using and the baud rate. MultiComm Host supports COM1 through COM35. Make sure your TNC is connected to the COM port that you choose and make sure you choose a baud rate that is the same as the baud set in your

Optional Settings	User Defin	ed Macro Variables	Packet Parameters	Packet Parameter:
Communications	CallBook	Edit Macros	Startup/Shutdown Cor	nmands 📔 Edit Call Sig
TNC Settings		Unused		
COM port:	0	COM port: 1 🖂		
Baud: 9600	3	Baud: 4800 🖂	I	
Use Two T	NCs	🔲 Use AGW Packet B	ingine	
DSP-RTTY				
🔲 DSP-599 or D	SP-59Y			
COM port:	1			
		Radio Port		
🔲 Set Registratio	n Set for Second	Packet •	1 🔿 2	
1		HF C	1 @ 2	
<u> </u>				
🗖 BL	.P Host logging (de	ebugging only)		

9) Now you are ready to begin using MultiComm Host for Windows.

## **Register Software**

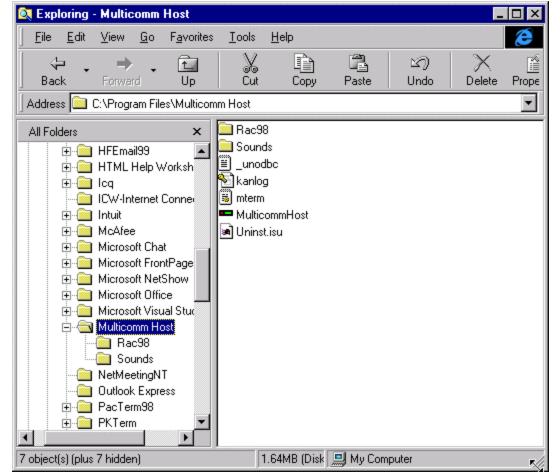
You are able to register up to 10 different call signs for family members in the same household. You will also need to select the registration set. The registration set is used if more than one call sign is used with the program. To select which registration set to use, click on the left and right arrow keys. You will need to enter your Call Sign, Serial Number, and an Activation Key to access the full capabilities of MultiComm Host. **NOTE**: Activation key **is** case sensitive. Each call sign will need its own activation key.

Registration	Information	×			
<u>File E</u> dit					
This pa	ge registers and shows the information for your version of the program				
Cal	I: W4PC Required Registration Set:				
Serial Numb	er: MM23458800081752282				
Activation K	ey: XniNFp+1WiRc+	XniNFp+1WiRc+			
	The above field is case sensitive, when entering the key use upper and lower case letters				
OK Cancel Apply					
If you have not purchased a serial number and activation key and wish to or have purchased this from a dealer with a serial number and need an activation key Contact MFJ at 800-647-1800 or email sales@mfjenterprises.com					
Show this window at startup					

### Starting MultiComm Host the First Time

If this is your first time using packet radio, you might want to try connecting to your own Mailbox first. After installation of the program and TNC has been completed, you can start MultiComm Host in a few different ways:

- □ By double clicking on the desktop icon ■
- By clicking on the Start menu Start. Select Programs and then click on the MultiComm Host Icon.
- **D** By using Windows Explorer. For more information on this, consult Windows Help.



□ After the program comes up, the first item you will be greeted with is a dialog box that prompts you for your Call Sign, Serial Number, and Activation Key.

If you downloaded this program from the web, you will not have an Activation Key or Serial Number until you purchase the registered version of this program. Just enter your call sign and click the Demo Mode button. If you have an Activation Key and a Serial Number, enter them and click the OK button. The program will then ask for the COM port where the TNC is connected and the baud rate to use to communicate with the TNC. The baud rate should be the same as the baud rate set in the TNC. The program should now come up. If it doesn't, check information in the Troubleshooting section of this manual.

Now that you have finished entering the basic information, it's time to begin the program. On opening MultiComm Host for the first time you will see a large program window near the top of your monitor. Near the bottom of the program window you will see a small chat buffer (the default color of this window is white), and a larger receive text buffer at the top (the default color of this window is blue). The bar that separates the two windows is the splitter bar, it can be moved up and down to resize the windows to your preference. **NOTE:** When making a packet connection, text you receive will appear in the text buffer. Commands and text you enter will appear in the chat buffer. All results of the commands or text entered by you will appear in the Command Window. The Monitor Window monitors the traffic on the packet radio port.

# How to Report Bugs

We would appreciate feedback from you. If you find a problem with the software that you think may be a bug, please let us know. You can reach us at bugs@cssincorp.com.

# **Window Commands**

### **Windows Commands**

MultiComm Host uses a standard 32-bit Windows interface. For general information and help about using Windows, see your Windows Help accessible from the Windows Start Menu. Windows Commands covered here that are specific to MultiComm Host include the following:

- Open File
- Close
- Save
- Save As
- Print
- Print Preview
- Print Dialog Box
- Print Preview Toolbar
- Print Setup
- Cut
- Copy
- Paste
- Cascade
- Tile
- Arrange Icons
- About Box
- Exit
- Status Bar
- Toolbar

# **Help Topics**

MultiComm Host Help is your online help. Help can be accessed from the "Help" menu, by pressing F1, by clicking the Help button on some dialog boxes, or by clicking the Help button on the Toolbar R and then clicking the item where more help is needed.

#### Shortcuts

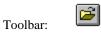
Toolbar:	<b>N?</b>
----------	-----------

Keys: F1

# **Open File Command**

Use this command to open a document with WordPad.

#### Shortcuts



Keys: CTRL+O

## **Close Command**

Use the File, Close command to close the current session. You can also close a session by using the Close button on the document's window, as shown below:

#### Shortcuts



×

Keys:

ALT+F and then C

## **Save Command**

Use this command to save the current active session. When you save a document, MultiComm Host displays the "Save as" dialog box so you can name your document.

#### Shortcuts

Toolbar:	
----------	--

Keys: CTRL+S

## Save As Command

Use this command to save and name the active session. MultiComm Host displays the "Save as" dialog box so you can name your document. It can be saved in Rich Text Format (.RTF) or Text Format (.TXT) format.

## Print

Use this command to print a session. This command presents a Print dialog box where you may specify the range of pages to be printed, the number of copies, the destination printer, and other printer setup options.

#### Shortcuts

Toolbar	9
Toolbar:	

Keys: CTRL+P

### **Print Preview**

Use this command to display the active session as it would appear when printed. When you choose this command, the main window will be replaced with a print preview window in which one or two pages will be displayed in their printed format. The print preview toolbar offers you options to view either one or two pages at a time; move back and forth through the document; zoom in and out of pages; and initiate a print job.

## **Print Dialog Box**

The following options allow you to specify how the document should be printed:

#### Printer

This is the active printer and printer connection. Choose the Setup option to change the printer and printer connection.

#### Setup

Displays a Print Setup dialog box, so you can select a printer and printer connection.

#### **Print Range**

Specify the pages you want to print:

All	Prints the entire document.
Selection	Prints the currently selected text.
Pages	Prints the range of pages you specify in the From and To boxes.
ies	

Copies

Specify the number of copies you want to print for the above page range.

#### **Collate Copies**

Prints copies in page number order, instead of separated multiple copies of each page.

#### **Print Quality**

Select the quality of the printing. Generally, lower quality printing takes less time to produce.

# **Print Progress Dialog**

The Printing dialog box is shown during the time that MultiComm Host is sending output to the printer. The page number indicates the progress of the printing.

To abort printing, click the **Cancel** button.

## **Print Preview Toolbar**

The print preview toolbar offers you the following options: **Print** 

Bring up the print dialog box, to start a print job. Next Page

Preview the next printed page.

#### **Prev Page**

Preview the previous printed page.

One Page / Two Page

Preview one or two printed pages at a time.

#### Zoom In

Take a closer look at the printed page.

#### Zoom Out

Take a larger look at the printed page.

#### Close

Return from print preview to the editing window.

### **Print Setup**

The following options allow you to select the destination printer and its connection.

#### Printer

Select the printer you want to use. Choose the Default Printer; or choose the Specific Printer option and select one of the current installed printers shown in the box. You install printers and configure ports using the Windows Control Panel.

#### Orientation

Choose Portrait or Landscape.

#### **Paper Size**

Select the size of paper that the document is to be printed on.

#### **Paper Source**

Some printers offer multiple trays for different paper sources. Specify the tray here.

#### Options

Displays a dialog box where you can make additional choices about printing, specific to the type of printer you have selected.

#### Network...

Choose this button to connect to a network location, assigning it a new drive letter.

### **Cut Command**

Use this command to remove the currently selected data from the session and put it on the clipboard. This command is unavailable if there is no data currently selected. You cannot cut data from the (blue) receive text window because this is a read-only window. You can cut text from the (white) chat window. **NOTE**: These are the default color and can be change by the user.

Cutting data to the clipboard replaces the contents previously stored there.

#### Shortcuts

Toolbar:	<mark>Ж</mark>
----------	----------------

Keys: CTRL+X

# **Copy Command**

Use this command to copy selected data onto the clipboard. This command is unavailable if there is no data currently selected.

Copying data to the clipboard replaces the contents previously stored there.

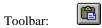
#### Shortcuts

Keys: CTRL+C

## **Paste Command**

Use this command to insert a copy of the clipboard contents at the insertion point. This command is unavailable if the clipboard is empty.

#### Shortcuts



Keys: CTRL+V

# **Cascade Command**

Use this command to arrange multiple opened windows in an overlapped fashion.

# **Tile Command**

Use this command to arrange multiple opened windows in a non-overlapped fashion.

# Arrange Icons

Use this command to arrange the icons for minimized windows at the bottom of the main window. If there is an open document window at the bottom of the main window, then some or all of the icons may not be visible because they will be underneath this document window.

## **About Box**

The About Box tells you who licensed the software, the model of MFJ TNC being used, and the version of firmware in the TNC. To access the About Box, click on the Help menu on the main MultiComm Host window and then select "About MultiComm Host". You can also access the

About Box by clicking on the About button on the Toolbar ?

About Multicomm Host	×	
MF Multicomm Host for Windows 95 Windows 98 Windows NT and Windows 2000	Copyright 1998-1999 Creative Services Software, Inc All Rights Reserved MFJ TNC ID: MFJ 1278 Firmware 09/25/95 http://www.cssincorp.com http://www.mfjenterprises.com	
MultiMode Version		
This product is licensed to: KF4WGU		
Product ID: MM11402500186597428	Version 2001.02.12 Preview 1.5	
Portions of this software courtesy of QRZ, Copyright (c) 1 Portions of this software courtesy of Buckmaster Publishi YAPP (tm) Protocol (c) 1986 Jeff Jacobsen - Wa	ing, Copyright 1997	

# Exit

From the Packet window, the Exit command quits and shuts down the program. If you have any open windows (connected to a packet station) they will not be disconnected when you exit. You will need to disconnect before exiting from the HF window; Exit will close the active HF window and will disconnect.

Clicking on the File menu and selecting "Exit" accesses the Exit command. You can also Exit MultiComm Host by clicking on the Close button in the upper right hand corner of the HF window or main MultiComm Host window

#### Shortcuts:

Button:	×

Keys: ALT+F then X

## **Status Bar**

#### **VHF Status Bar**

А.		В.	С.	
F2 Toggles Command/Converse Mode		Port 1 Stream A	Disconnected/Unproto	
For Help, press F1	Host Mode A	ctive	4:09 PM 22:09 UTC Free Bytes	4335
D.		E.	F. G.	

The status bar is displayed at the bottom of the MultiComm Host window. To display or hide the status bar, use the Status Bar command in the View menu.

The following is a description of each part of the status bar:

- A. Emulates the TNC cmd: Converse Mode by pressing **F2**.
- B. Shows which Port and Stream the session is using.
- C. Connection status.
- D. Press **F1** for Help.
- E. Lists the current Mode, Host or Terminal.
- F. Local time
- G. UTC (GMT)
- H. Free bytes in the TNC's buffer.

#### HF Non-Packet Status Bar

CW Ready	Mode:CW	XMIT SPEED: 25
C A	B	

- A. Shows which Non Packet mode your are using.
- B. Additional information about that mode.
- C. TNC status.

# **Toolbar**

This is the VHF Toolbar:



This is the HF Toolbar.



The toolbar is displayed across the top of the application window, below the menu bar. The toolbar provides quick mouse access to many tools used in MultiComm Host.

To hide or dis play the Toolbar, choose Toolbar from the View menu (keyboard shortcut is <Alt-V> and then <T>).

Click	То
D	Open a new session.

Ê Open an existing document. MultiComm Host displays the Open dialog box, in which you can locate and open the desired file.

	-	-	-	-
				п
	1.4		-	1

Save the active session with its current name. If you have not named the document, MultiComm Host displays the Save As dialog box.



Print the active session.

Remove selected data from the session and stores it on the clipboard.



\*

Copy the selection to the clipboard.



Insert the contents of the clipboard at the text cursor.

# **General Information**

# **Connecting to your own Mailbox**

Due to the nature of the MFJ Firmware, BLP (host) mode cannot be used simultaneously with the mailbox.

### **Understanding the HF TOR Modes**

To monitor AMTOR or PACTOR transmissions, you will have to enter a monitor mode. For example, to listen to PACTOR link requests or a QSO in PACTOR, you would click on the PACTOR Listen button or choose PACTOR from the Mode menu.

To break a link (finish the QSO), you would click on Disconnect in the appropriate menu to abort the link or quit the TOR mode.

If the station you are monitoring is calling CQ and you wish to make contact, you would issue a link request, again with a command specific to that mode. For example, suppose you hear W4PC calling CQ in PACTOR. To link with him, you would click the Link option in the AMTOR menu,

type in W4PC and press <**Enter**>. You can also click on the Link button

If you wanted to call CQ yourself, you would enter Standby mode for AMTOR by clicking on the AMTOR button  $\square$  on the toolbar and then click on the Transmit button  $\square$ , or press **F4**, to make your radio transmit. Then type your CQ message:

CQ CQ CQ DE "your Call Sign" K.

You may repeat that line several times. Then, put your controller in Standby (and return the radio to Receive mode), by clicking on Receive button **R** or pressing **F5**.

You are now ready to take on Solar Cycle 23 and operate one of the TOR modes. Good hunting.

Information transmitted by AMTOR is specially encoded to provide a scheme of error detection. This coding takes the form of each character containing 4 SPACE signals and 3 MARK signals. The receiving station can use this 4/3 ratio to determine if the character received is "probably" correct. If the received signal were to arrive with 4 MARK and 3 SPACE signals, the signal is obviously in error, and the receiving station could take the appropriate action.

The information is transmitted in blocks of 3 characters; that is, the sending station will transmit 3 characters and then pause for an answer from the receiving station. The answer will consist of a single character, indicating that the block just sent was either received OK or that the block should be retransmitted.

AMTOR operation is possible in two basic modes. Mode A operation is a one-on-one mode, enabling the receiving station to request retransmission of any characters received which contain errors. This mode provides a high degree of error immunity due to the handshaking between the two stations involved in the communication. This mode is commonly referred to as ARQ.

Mode B operation is similar to Baudot RTTY operation, in that the signals are not error-checked by a specific station and no handshaking is performed. Mode B is the mode used for calling CQ, or other operations, where more than one station is intended to receive the communication. Mode B operation is called FEC -- Forward Error Correction. In this mode, each character is sent twice, and the receiving stations will check each character for the proper 4/3 ratio. If the first character received is correct, the receiving station stores it and then looks at the repeat of that character. If it is also correct and it matches with the first character, it is printed. If one of the two was correct and the other did not have the proper MARK/SPACE ratio, the correctly received character is printed. If both characters were received incorrectly, then the ERRCHAR is printed. If both were received correctly, but they don't match, the ERRCHAR is also printed.

A variation of mode B operation is called SELFEC -- Selective FEC. In this mode, the sending station transmits the SELCAL of the intended receiving station for a specific time interval. During this time, all stations that hear the signal compare the SELCAL being received with their own SELCAL. If they match, then the printing of data is enabled. Otherwise the receiving station returns to a standby mode and doesn't copy the signal. In addition, when the sending station starts to transmit the data, it automatically inverts the MARK and SPACE tones, resulting in four MARKs and three SPACEs. Other stations that tune in during the SELFEC transmission cannot lock to this signal.

AMTOR stations are each identified with a SELCAL -- the Selective Call Sign used to identify this station from all others. In most other amateur communication, we think of the call sign being used for this purpose, but in AMTOR, the SELCAL is normally composed of the first letter of your call and the last three letters of your call. Thus the SELCAL for KF4WGU would be KWGU. If your call sign does not contain four letters, the standard practice is to duplicate the first letter of the SELCAL. Thus W4RJ would have a SELCAL of WWRJ. The SELCAL is used in both the SELFEC and ARQ modes of operation.

With the implementation of the CCIR 625 recommendation for AMTOR operation, the SELCAL may now contain 7 characters. This SELCAL cannot include the characters G, H, J, L, N, and W. The reasons for this are contained in the Consultative Committee on International Radio document "CCIR Recommendation 491-1" which describes a TOR station identity.

AMTOR ARQ (mode A) operation requires that both stations transmit alternately. First the Information Sending Station, or ISS, (the station actually sending data) sends three characters. This requires 210 milliseconds. This station then enters the receive mode and it listens for the acknowledgment from the Information Receiving Station, or IRS. The sending station will wait 240 milliseconds for an acknowledge. After this 240 millisecond delay, the sending station will again enter transmit and send the next (or the same) three characters.

Since both stations are constantly switching between receive and transmit, fast switching times are required for AMTOR ARQ operation. You can adjust ADELAY to allow for the time required for your station to change from receive to transmit, but you should allow a small extra amount of time for the other station to switch from transmit to receive. Regardless of the setting of this parameter, the total turn around time for one AMTOR data/ack cycle remains 450 milliseconds.

# **CW** Operation

The TNC will both send and receive International Morse Code. The computer based CW operator can use the TNC to send "perfect" code at much higher speeds than are typical of hand sent code. When a computer is used to send and receive Morse Code, you can also maintain a record of your contacts.

Before you operate CW, you must first know where the activity is. Morse operation is permitted on any amateur frequency, but most often occurs in the lower 100 to 250 kHz of a band. To enter

CW mode, simply click on the CW button

# **AMTOR Information**

AMTOR is one of three Teletype Over Radio (TOR) modes. Operationally, AMTOR and PACTOR are similar. Commands exists in each mode for monitoring (other stations), for standby (to receive a link request), and for initiating a link (connect).

Action	Command
To monitor AMTOR or (SITOR)	use
To receive a linked request or	
go to AMTOR standby to call CQ	use
To initiate a link	use <b>L</b> K

To listen to AMTOR activity or to make an AMTOR contact using MultiComm Host, start by opening a HF non-packet session using the pull-down File menu.

<u>AMTOR Listen</u>: Once the screen is opened, click AMTOR\_Listen button on the toolbar to enter the Listen AMTOR (monitor) mode. Once the TNC is set, AMTOR\_Listen will appear on the status bar at the bottom on the HF screen (just above the task bar). To monitor (copy other stations), tune your receiver (LSB for amateur operations, USB for some commercial services) until the MARK and SPACE tones light both ends of the TNC bar graph. To quit AMTOR\_Listen, simply click on another mode or close the HF window.

You are set to receive a link request from another station or you may click the Link button to initiate a link. (For commercial SITOR operations, tune in the bar graph when a transmission is heard to see if it is a "free" signal).

AMTOR: To make an AMTOR connect, click the AMTOR button (if not in that mode
already) and then click the Link button <b>L</b> . A menu will then appear for you to enter the
SELCAL of the station you wish to contact. Phasing to link (connect) follows.

TO BREAK THE LINK: Click the Disconnect button

SENDING TO RECEIVING DATA WHILE IN AMTOR: The station that initiates the AMTOR link starts as the Information Sending Station (ISS) . The station receiving a link request and linking starts as the Information Receiving Station (IRS) . As ISS you may send information by typing text in the chat window which is immediately below the text window and above the status bar (to type in text, you must place your cursor in this window). Once you have finished typing the text you want to send, you can press either the ISS or the IRS button to change to information direction (OPTIONAL: you can also type a "+" and a "?" to cause the AMTOR link to change information direction. Once you have done that, the link will sound different and your status bar will reflect your station as IRS. You can capture status as ISS by once again typing "+" and a "?".

To call CQ click the AMTOR button A. After you are in AMTOR standby mode, click the Transmit button to call CQ, then click the Receive to return to AMTOR standby, ready to be linked to.

# **AMTOR Operation**

AMTOR has two basic modes of operation, mode A (ARQ - Automatic ReQuest for Reception) and mode B (FEC - Forward Error Correction).

- ARQ AMTOR is a handshaking protocol that allows only two stations to communicate in a near error free fashion. You will hear a "chirp chirp" sound when you find two stations conversing in ARQ. AMTOR mode A (ARQ) is perhaps the most error-free method of getting messages through on HF when conditions are poor.
- **FEC AMTOR** is similar to Baudot RTTY and is used to call CQ or to carry on "round table" contacts.

NAVTEX is a form of FEC AMTOR that is used to send navigational bulletins and weather information primarily to ships at sea. It has been adopted by the ARRL to send bulletins to amateurs.

Before you can operate AMTOR, you must first know where the activity is. Most AMTOR operation occurs on the 20-meter amateur band between 14.065 and 14.085 MHz. AMTOR activity can be found on the other HF amateur bands as well and is most often located between 65 and 90 kHz up from the bottom of the band as it is on 20 meters.

## **PACTOR Operation**

PACTOR is a relatively new amateur data communications mode. It was developed in Germany by Hans-Peter Helfert, DL6MAA, and Ulrich Strate, DF4KV. PACTOR combines some of the best features of AMTOR and packet as well as providing a few new features. PACTOR operates at 100 BPS or 200 BPS depending on radio conditions. PACTOR also contains a 16 bit CRC to provide near error-free operation, as does packet and can also selectively use a data compression scheme (Huffman encoding) to increase the throughput when transmitting text. PACTOR uses an 8-bit word, allowing the use of the full ASCII character set.

When data blocks are repeated in the case of an error, the receiving unit can often combine the information in the repeated blocks to provide a good block without the need of receiving a perfect block. This scheme is called memory ARQ.

Like AMTOR and packet, PACTOR has two basic modes of operation, an ARQ mode (Automatic ReQuest for reception) and a non-linked mode used for CQ calls and round table operation.

- ARQ PACTOR is a handshaking protocol that allows two stations to communicate in a near error-free fashion. When listening to an ARQ PACTOR communication, you will hear a 0.96 second burst of data from the information sending station followed by a short burst from the data receiving station that is an acknowledge (ACK) or non-acknowledge (NAK). The receiving station sends the NAK when the CRC indicates an error in the data block. Like packet, PACTOR is MARK-SPACE polarity independent. The PACTOR protocol alternates the data polarity with every transmission.
- The unproto (col) mode of operation is a non-linked type of operation. It is used for round table operation or for calling CQ. The unproto mode repeats the data blocks a selectable number of times and can use either 100 or 200 BPS. It also uses the CRC error check.

Before you can operate PACTOR, you must first know where the activity occurs. Most PACTOR operation occurs on the 20-meter amateur band between 14.065 and 14.085 MHz. PACTOR activity can be found on the other HF amateur bands as well and is most often located between 65 and 90 kHz up from the bottom of the band as it is on 20 meters. On 80 meters, most PACTOR will be found between 3660 and 3690 kHz. PACTOR is not sensitive to the sideband used, but we recommend using LSB as in RTTY and AMTOR operating modes.

## **RTTY Operation**

RTTY, or Radio TeleTYpe, has been around for many years. The five bit Baudot/Murray code was the basis of the Western Union Telex service and Baudot RTTY (Radio TeleTYpe) is still widely used on the HF amateur bands. The RTTY character set contains the upper-case letters, the numbers 0-9 and some common punctuation characters. Because RTTY has only five bits, it is less prone to errors than seven bit ASCII. Your TNC provides RTTY at all the standard speeds in use today, including all commercial speeds up to 300 baud.

Before you can operate RTTY, you must first know where the activity is. Most RTTY operation occurs on the 20-meter amateur between 14.08 and 14.10 MHz. RTTY activity can be found on the other HF amateur bands as well and is most often located between 80 and 100 kHz up from the bottom of the band as it is on 20 meters.

## **ASCII** Operation

ASCII, the American Standard Code for Information Interchange, has been around for nearly 30 years. ASCII is a 7-bit code and was designed to overcome the limitations of the Baudot character set by including both upper and lower case letters, numbers, all punctuation as well as many computer control codes. Because all possible numbers, letters, and punctuation can be defined within this set of combinations, no LETTERS or FIGURES shift is required. ASCII is not so popular on the amateur bands, but its operation is almost identical to Baudot RTTY. Transmission of ASCII is accomplished using FSK or AFSK as is done in Baudot RTTY.

Before you can operate ASCII RTTY, you must first know where the activity is. Most RTTY operation occurs on the 20-meter amateur between 14.08 and 14.10 MHz. RTTY activity can be found on the other HF amateur bands as well and is most often located between 80 and 100 kHz up from the bottom of the band as it is on 20 meters.

# SELCAL

SELCAL is an acronym for Selective Call. SELCAL is derived from your Call Sign. As a general rule your AMTOR SELCAL consists of the first letter in your Call Sign and the last three letters of your Call Sign. To change your SELCAL consult your TNC Manual.

This unique character sequence contains four alphabetic characters that are derived from your call sign. The TNC will automatically do this for you just by entering your amateur call sign into the MYSELCAL command.

Because the same call sign sequences are assigned in ten districts, it is possible that your SELCAL could be used by another station. If you think a station in another call district is also active on AMTOR and is using the same SELCAL, see the MYSELCAL command in the TNC manual for information on how to change your SELCAL.

## **Slow Scan TV**

Slow Scan TV or SSTV is a method for transmitting pictures over radio, similar to sending color fax. A number of SSTV modes have been developed by amateur radio operators including various Scottie, Martin, Robot modes, and Wrasse modes. SSTV uses analog modulation and can be sampled at any rate. The sampling rate will determine the number of pixels per line, with higher sampling rates producing better detail. In the case of MultiComm Host, the sampling rate is determined by the internal sampling rate in your MFJ TNC.

## **PSK31** Information

PSK31 is a new mode developed by Peter Martinez, G3PLX, and is based on SLOWBPSK introduced by SP9VRC. PSK31 uses Phase Shift Keying (PSK) or patterns of polarity reversals rather than the more traditional Frequency Shift Keying (FSK). Data is sent at a rate of 31.25 baud to handle typed-in text easily. If bandwidth is approximately equal to baud rate, bandwidth can be set to 31 Hz and narrow CW filters used. Information is coded in an alphabet that is similar to Morse code, variable length coding. This variable length coding was developed by analyzing English language ASCII text files for the frequency of occurrence of each of the 128 ASCII characters. The ASCII characters were then matched to binary patterns, with the most frequently occurring characters having the shortest binary patterns. Each character is separated from neighboring characters by two consecutive 0 bits. No character can contain more than one consecutive 0 bit. Each character must begin and end with a 1. More information on PSK31 can be found on the Internet at http://www.psk31.com.

Audio input and output is handled by the computer's sound card rather than a TNC. Keying is done using VOX, a separate keying circuit, or the keying circuit in a TNC. The choice of how to key PSK31 will depend on your equipment and personal preferences. See the PSK31 Setup section of this help file for information on keying alternatives for your setup.

### **PSK31 Setup**

Your computer's sound card, rather than the TNC, handles audio input and output. You will need to create a connection between the computer's sound card and your radio, perhaps with an isolation circuit to protect your equipment. Keying can be done using a VOX, a separate keying circuit, or the keying circuit in a TNC. Several alternatives are available for keying PSK31, depending on your equipment and computer capabilities. Listed below are some of these alternatives, categorized by the type of TNC you have. Even though PSK31 does not require a TNC to operate, MultiComm Host requires a TNC for operation since it is primarily TNC software. Where an external keying circuit is specified, you can use a keyer such as a Rig Blaster, home brew keyer, or other keyer with a free serial port. If you have a multimode TNC, you can use the TNC's internal keying circuit. More information on PSK31 in general can be found on the Internet at http://www.psk31.com

### **One Multimode TNC**

If you have a multimode TNC, you can do all of the HF modes plus PSK31. This also adds the option of using the TNC's internal keying circuit in addition to using the serial port for keying.

- Use the TNC's internal keying circuit for keying. No external keying circuit is needed.
- Use the TNC's serial port with an external keying circuit.
- Use a free serial port on the computer with an external keying circuit.

### One Multimode TNC with a Timewave DSP-599y or DSP-599zx

With the addition of a DSP-599y or DSP-599zx to a multimode TNC, you have four keying options.

- Use the DSP-599 for keying PSK31. No external keying circuit is needed.
- Use the TNC's internal keying circuit for keying. No external keying circuit is needed.
- Use the TNC's serial port with an external keying circuit.
- Use a free serial port on the computer with an external keying circuit.

Note that if you use DSP-599 RTTY with a multimode TNC, you will need to use the keying circuit in the DSP-599 rather than the keying circuit in the TNC. This only applies to DSP-599 RTTY, not the TNC's RTTY.

## **PSK31** Operation

PSK31, or Phase Shift Keying 31 Baud, is a new digital mode that uses your sound card to produce audio input or output rather than your TNC. In MultiComm Host, keying can be done by an external keyer or the internal keyer in a multimode TNC. See the PSK31 Setup section of this help file for information on hardware setup options and requirements.

Once you have set up your system for PSK31, you are ready to start PSK31. Simply press the

button on the toolbar to start PSK31. This will bring up the PSK31 Control Panel where you can set your sessions controls and select a signal for your QSO.

## **AGW Packet Engine Information**

AGW Packet Engine uses software and a computer's sound card to send and receive AX-25 packets rather than using a traditional TNC. AGW Packet Engine was written by SV2AGW. MultiComm Host version 1.5 and higher provides an interface to AGW Packet Engine. See the AGW Packet Engine Setup section of this help file for information on setting up AGW Packet Engine and keying alternatives for your setup. Additional information and support on AGW Packet Engine is available on the SV2AGW's web site at http://www.raag.org/sv2agw.

#### AGW Packet Engine Setup

MultiComm Host works with AGW Packet Engine version 2000.76 and above. Current versions of AGW Packet Engine are available on the AGW Packet Engine web site at http://www.raag.org/sv2agw. In MultiComm Host, AGW Packet Engine would be used in place of a second packet-only TNC. The primary TNC should be a single port multimode TNC. AGW Packet Engine does not allow you to choose a sound card for your system. If you have multiple sound cards, it will use the default sound card. You cannot use the same sound card for both PSK31 and AGW Packet Engine at the same time. If you have only one sound card, you will need to shut down AGW Packet Engine in order to run PSK31. If you want to run AGW Packet Engine again, you will need to shut down and restart MultiComm Host. To use AGW Packet Engine, download and install the AGW Packet Engine software from http://www.raag.org/sv2agw. Start AGW Packet Engine and then start MultiComm Host.

AGW Packet Engine requires that you have a free serial port on your computer and an external keying circuit. This serial port cannot be shared with other devices. The serial port is selected in the AGW Packet Engine setup rather than the MultiComm Host setup. PSK31 and AGW Packet Engine cannot share the same serial port. PSK31 will need a separate serial port and keying circuit if you plan to run both PSK31 and AGW Packet Engine. The keying circuit can be a keyer such as a Rig Blaster, home brew keyer, or other keyer. If you also have a DSP-599 in addition to a multimode TNC, the DSP-599 cannot share a serial port with AGW Packet Engine. See the PSK31 Setup section of this help file for information on keying alternatives and setup configurations for PSK31.

#### Call Bar, View Tabs, and Macro Bar

A few new Items have been added to MultiComm Host to make it more convenient and user friendly.

The Call Bar is where you can enter call signs for connections without having to press F2 to bring up the command prompt or F7 to bring up the Quick Connect screen.



The Window Tab allows you to easily switch between open windows in MultiComm Host. Simply click the tab for the window that you wish to be moved to the front of the MultiComm Host window.

F2 Toggles Command/Converse Mode	Port 1 Stream A	Disconnected/Unproto
📑 IDLE		

Another addition to MultiComm Host is the MultiComm Host icon, which is placed in the system tray at the bottom right-hand of your screen.

🏉 🗹 😂 🙆	Multicomm Host	Monitor/Unproto Port 1	Command Window	🔄 💟 🍕 🔮
---------	----------------	------------------------	----------------	---------

A Macro Bar has been added to MultiComm Host to automate using your Mode Macros, calling CQ, and sending your ID and QRT. The CQ, ID, QRT, and Mode Macros are set under File, HF Non-Packet Settings on the HF window. To automatically call CQ, select the number of times you wish to repeat your CQ call and the Interval between calls in seconds. Then click the CQ button for to transmit your CQ call. You can also transmit your ID, QRT, or CWID once for each button click by click the ID button due to this help file for more information on setting up this feature. The Mode Macro buttons M1 through M10 (for example, 11)) allow easy access to your Mode Macros that are specific to each mode. See the Edit Macro Settings section of this help file for more information on setting up Mode Macros. To quickly stop sending a macro, click the Stop



# **Right Click Menu**

There is a pop-up menu available in the text and chat windows by clicking the right mouse button in the window. You can also access the Copy command clicking the right mouse button in the command window or any of the port monitor windows.

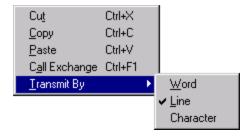
This is the pop-up menu you get when you click the right mouse button in the VHF text window or the HF Non-Packet text window.

Сору	Ctrl+C		
Copy to Call Exchange			
Call Exchange	Ctrl+F1		
Copy Macro Variable		×	Copy to {name}
Log Contact to		۲	Copy to {call}

This is the pop-up menu you get when you click the right mouse button in the VHF chat window.

Cu <u>t</u>	Ctrl+X
<u>С</u> ору	Ctrl+C
<u>P</u> aste	Ctrl+V
C <u>a</u> ll Exchange	Ctrl+F1

This is the pop-up Menu you will see when you click the right mouse button in the HF Non-Packet chat window.



# **Copy Macro Variable**

Copies the selected text to either the {name} or {call} macro variable. To use this command, select text and click your right mouse button on it to bring up the pop-up mean. Select the "Copy Macro Variable" menu item and the variable as shown below.

Сору	Ctrl+C		
Copy to Call Exchange			
Call Exchange	Ctrl+F1		
Copy Macro Variable		۲	Copy to {name}
Log Contact to		Þ	Copy to {call}

# Log Contacts

This command allows you to send a contact to your Log Windows or DXBase 2002 database. To log a contact, highlight the call sign in the HF window, click the right mouse button, and select "Log Contact to" from the pop-up menu and then select your choice of logging programs.

After you pick the logging program, a window will appear, similar to the one below, which allows you to complete and send the information to either DXBase 2002 or Log Windows. For Log Windows, you can also go ahead and save the information.

Send to Logging Program		
Call:	W4PC	
Name:		
RST Sent:	59	
RST Received:	59	
Frequency:	14.000.00	
Mode:	SSB	
Log	Log and Save Cancel	

# **MultiComm Host VHF Controls**

# **VHF** View

This is a MultiComm Host VHF Window.

- Multicomm Host - [IDLE]			_ 🗆 ×
<u>File E</u> dit <u>V</u> iew <u>M</u> ode <u>T</u> NC F <u>o</u> rmat	File Transfer Lookup	M <u>a</u> cros <u>W</u> indow	Help
	$\times \bullet \mathbb{R}_1 \mathbb{R}_2$	<u>⊾ ₩</u> ? N	?
Call:		•	Connect
F2 Toggles Command/Converse Mode	Port 1	Stream A [	Disconnected/U
For Help, press F1	Host Mode Active	3	3:22 PM 20:2: //

# Window Menu



**Cascade -** Use this command to arrange multiple opened windows in an overlapped fashion.

**Tile** – Use this command to arrange multiple opened windows in a non-overlapped fashion.

**Arrange Icons** - Use this command to arrange the icons for minimized windows at the bottom of the main window.

# Help Menu

1	л.	_	_	
	-18	- 1	п	

Help Topics

Register Software About MultiComm Host Help Topics – MultiComm Host Help is your online help.

**Register Software** – Use this command to register your software.

About MultiComm Host – Shows to whom the software is registered and what hardware and firmware is used.

# **Quick Connect**

Quick Connect allows you to store frequently used connections. To create a Quick Connect, select the Options menu and then select "Add Quick Connect". To edit a previous entry, select "Edit Quick Connect" from the Options menu. To delete a previous entry, select "Delete Quick Connect" from the Options menu.

Connect to Station			×
<u>O</u> ptions			
Callsign to Connect to:			
	Connect	Cancel	Help
Quick			
CLUSTER			

# Radio 1 and Radio 2

Clicking the Radio 1 or Radio 2 button on the Toolbar switches between the Radio 1 and Radio 2 connections on the TNC.



# File Menu

#### VHF File Menu

When you first start MultiComm Host, before you have started a new session, the following File menu will appear.

File Help	
New VHF Session	Ctrl+N
New HF Non Packet Session	Ctrl+H
SSTV Modes	
Settings	
Exit	

**New VHF Session** – This command opens a new unconnected VHF stream in a new window.

**New HF Non Packet Session** – This command opens a window that allows you to use non-packet HF Modes, if allowed by your TNC.

**SSTV Modes** – This command a window that allows you to use the slow scan TV modes.

**Settings** – This command provides options to select the CallBook you are using, to select the drive associated with your CD-ROM, to change your COM port and baud rate settings, to create macros, and to create startup and shutdown commands.

**Exit** – The Exit command exits from the program.

After you have started a new VHF session, the following File menu will appear.

File	
New VHF Session	Ctrl+N
New HF Non Packet Session	Ctrl+H
Open File	Ctrl+O
View Ansi file	
Close	
Save	Ctrl+S
Save As	
Settings	
Print	Ctrl+P
Print Preview	
Print Setup	
Exit	

**New VHF Session** - This command opens a new unconnected VHF stream in a new window.

**New HF Non-Packet Session Command** - This command opens a window that allows you to use non-packet HF Modes, if allowed by your TNC.

**Open File -** Use this command to open an existing document.

**View ANSI file -** ANSI – American National Standard Institute. ANSI is an 8-bit character set of 256 characters. You can view or save an ANSI file with this command.

Close – Use this command to close the active session.

**Save** – Use this command to save the active session to its current name and directory.

**Save As** – Use this command to save and name the active session.

Settings - This provides options to select the CallBook you

are using, to select the drive associated with your CD-ROM, to change your COM port settings and baud rate, to create macros, and to create startup and shutdown commands.

**Print** – Use this command to print a session.

**Print Preview** – Allows you to preview a page before printing.

**Print Setup** – Allows you to set different parameters for printing.

**Exit** - The Exit command exits from the program

## **VHF Session Command**

The New VHF Session command opens a new unconnected VHF stream in a new window. This is for VHF Packet sessions only. Select the "New VHF Session" option in the File menu.

## HF Session Command

The New HF Non-Packet Session command opens a window that allows you to use non-packet HF modes, if allowed by your TNC. Select the "New HF Non-Packet Session" from the File menu.

### SSTV Modes

The SSTV Modes command opens a new SSTV session window if allowed by your TNC. To start a new SSTV session, click on the File menu and select "SSTV Modes".

### View ANSI File

ANSI - American National Standard Institute. ANSI is an 8-bit character set of 256 characters.

#### To view an ANSI file:

- 1) Select "View ANSI File" from the File menu.
  - 1. This brings up the screen shown below.
  - 2. Select the folder where the file you want to view is located.
  - 3. Select the file you want to view and click the Open button.
  - 4. The ANSI file will be displayed in the window.

🗖 Ansi Display		_ 🗆 ×
Open	? ×	
Look jn:	Multicommhost	
rac98		
File <u>n</u> ame:	<u>O</u> pen	
Files of <u>type</u> :	Ansi Files (*.ans)	
		-
		•

#### Settings Command

The Settings option brings up the Settings dialog box. This allows you to select which type of CallBook CD you are using and designate the drive associated with your CD-ROM, allows you to change your port settings and baud rate, create macros, and create and edit startup and shutdown commands.

- CallBook Settings
- Communications Settings
- Edit Macros
- Startup/Shutdown Commands
- Edit Call Sign Exchange
- Optional Settings
- User Defined Macro Variables
- Packet Parameters
- Packet Parameters Switches

## **CallBook Settings**

A CallBook is a database of Amateur Radio Call Signs. The following dialog box allows you to select which CallBook CD you use. Options include QRZ, BuckMaster, RAC (Radio Amateur Callbook), SAM, or none. It also allows you to set the drive letter that corresponds to your CD-ROM. MultiComm Host includes a mini contact database so even if you don't have a CallBook, you can keep track of your contacts.

Communications       CallBook       Edit Macros       Startup/Shutdown Commands       Edit Call Sign            • None         • QRZ CallBook         • BuckMaster         • BuckMaster         • Radio Amateur Callbook (all)         • Sam Callsign Database         CD-ROM or Disk Drive Letter:         • Path for         • Browse         • Browse         • Browse         • Communications         •	None     QRZ CallBook     BuckMaster     Radio Amateur Callbook (all)     Sam Callsign Database CD-ROM or Disk Drive Letter:		ed Macro Variables	Packet Parameters	Packet Parameters -
<ul> <li>QRZ CallBook</li> <li>BuckMaster</li> <li>Radio Amateur Callbook (all)</li> <li>Sam Callsign Database</li> </ul> CD-ROM or Disk Drive Letter:	<ul> <li>QRZ CallBook</li> <li>BuckMaster</li> <li>Radio Amateur Callbook (all)</li> <li>Sam Callsign Database</li> </ul> CD-ROM or Disk Drive Letter:	Communications CallBook	Edit Macros	Startup/Shutdown Commands	Edit Call Sign I
		<ul> <li>QRZ CallBook</li> <li>BuckMaster</li> <li>Radio Amateur Callbook (all)</li> <li>Sam Callsign Database</li> <li>CD-ROM or Disk Drive Letter:</li> </ul>	Browse		

#### **Communications Settings**

This allows you set the COM port to which you are connected, and the baud rate used when communicating with the TNC. MultiComm Host supports COM1 through COM35. Make sure your TNC is properly connected to the selected COM port, and that you select the correct baud rate to communicate with the TNC. (The baud rate selected should be set to the same as the current TNC baud rate if it has been used before with another program.) Put a check mark beside "Use Two TNCs" if you plan to use a second TNC for Packet only. If you plan to use AGW Packet Engine as your second, packet-only TNC, put a check mark beside "Use AGW Packet Engine" and select a COM port and Baud rate for AGW Packet Engine. If you have a DSP-599 or DSP-599y, you can choose to use DSP-RTTY. The Radio Port option allows you to set the Radio Port for HF and Packet. The default is Port 1 for Packet and Port 2 for HF. The BLP Host mode logging option can be used to track down a problem. Most often this will be used by technical support.

Optional Settings	User Defin	ed Macro Variables	Packet Parame	ters	Packet Param	ieters - Sv
Communications	CallBook	Edit Macros	Startup/Shutdown	Commands	Edit Ca	all Sign Exc
TNC Settings		Unused				
COM port:	1.	COM port: 1				
Baud: 9600	-	Baud: 4800				
Use Two T	NCs J	Use AGW Packet F	ingine			
DSP-RTTY						
DSP-599 or D	SP-59Y					
COM port:	1.2					
		Radio Port				
🗌 Set Registratio	n Set for Second 1	INC Packet 🖸	1 🔿 2			
1 🔛		HF	1 🖲 2			
□ BL	P Host logging (de	ebugging only)				
E BL	P Host logging (de	ebugging only)	),			

# Edit Call Sign Exchange

This box allows you to edit your call sign and your contact's call sign to be used with the Call Exchange hot key.

Communications     CallBook     Edit Macros     Startup/Shutdown Commands       Your call sign:     DE N4GDD       Other station:	Edit Call
Other station:	

### **Edit Macros Settings**

A Macro is a user-defined text that is associated with a particular keystroke. This dialog box allows you to create macros. There are 10 global macros for VHF, 10 global macros for HF, and 10 specific macros for each of the HF modes. Pick a name for the macro and then enter the information in the macro text window. (You can use **<Ctrl-Enter>** to insert a carriage return into the macro text). You can create a macro using the user-defined macro variables as shown in the picture below. The name you specify for the new macro will show up in the macro menu.

Optional Settings	User Defined Ma	acro Variables	Packet Parameter	rs   P	acket Parameter
Communications	CallBook	Edit Macros	Startup/Shutdown C	ommands	Edit Call Sig
Macro Name: 🔚					
Macro					
(call) DE {mycall} Hi the and my QTH is {qth}. N time is {time} and the ct	Ay Selcal is (selcal).	is (myname) The current			
	anenii uale is (uale).				
-		<u></u>			
C HF Global Macros C CW Macros	<ul> <li>Packet Macros</li> <li>RTTY Macros</li> </ul>	C PSK-31			
C ASCII Macros	C Amtor Macros	Г	151		
O Pactor Macros		Macro Num: 1			

#### Macro Variables

These variables can be used in the macros that you create in the Edit Macros Settings. The macros can be created using variable names and when these variables change, the macro changes automatically. Click each setting for a description. There are five macro variables you can use that are not listed. Three macro variables, {date}, {time} and {utctime} are taken from your system clock. The {utctime} macro variable reports Greenwich Mean Time. The other two are {xmit} and {rec}. The {xmit} variable turns the Transmitter on and the {rec} variable turns the Transmitter off. These two variables can only be used in HF macros.

Communications	and the second se	dit Macros	Startup/Shutdown Commar	nds 🔰 Edit Call Sign Ex
Optional Settings	User Defined Ma	cro Variables	Packet Parameters	Packet Parameters - S
{call}	{name}			
(mycall) KF4w	GU (myname) Syd	dney		
{selcal}	{qth}			
{sn} 1	🔲 🗌 Manually L	Jpdate S/N		
	Append ze	eros to S/N		
			OK Car	ncel Apply

For example, if the settings were filled in with these values:

 $\{call\} - KF4WGU$ 

{name} - Sydney

{mycall} - N4GDO

{myname} - ricker

 $\{selcal\} - ngdo$ 

{qth} - Florence, AL

you could set up a macro like this:

{call} DE {mycall} Hi there {name}, My name is {myname}, and my QTH is {qth}. My Selcal is {selcal}. The current time is {time} and the current date is {date}.

and when the macro was invoked, it would type this to the screen:

KF4WGU de N4GDO Hi there Sydney, My name is ricker, and my QTH is Florence, AL. My Selcal is ngdo. The current time is 09:33:41 and the current date is Wednesday, June 17, 1998.

### **Optional Settings**

Settings				х
Communications Edit Call Sign Excha		Edit Macros	Startup/Shutdown Commands User Defined Macro Variables	
MAXUSERS Port 1 Sounds	on startup		Clock Display Format Local UTC <ul> <li>12 hr</li> <li>12 hr</li> <li>24 hr</li> <li>24 hr</li> <li>Voice DX Spotting</li> </ul>	
A B C D N O P Q	E F G H I J R S T U V W		Spot Voice Male Female	
1 2 3 Connect	4 5 6 7 8	9 0 Disconnect	HF Transmit Mode Character Mode Line Mode Word Mode	
	Tum On Sound 🔽		✓ Use 16 bit Logwindows Interface	
	0	IK Cano	cel Apply Help	

#### MAXUSERS on startup

This section allows you to set the maximum number of users on startup. The MAXUSERS command causes the TNC to allocate the memory required for the maximum number of simultaneous connections you wish to allow. Each connection uses a different stream. You will see an option to change MAXUSERS on each port that you have available on your TNC. The highest each port can be set is 26.

#### Sounds

The Sound ID on Connect option allows you to turn sounds on or off. If you choose sounds to be on, you can use the sounds that are included or choose your own sounds.

To set the sounds, click on each item and enter the filename of the sound to associate with it.

Edit Sound	×
Path of sound file	
C:\Program Files\MulticommHost\SOUNDS\CONNECT.WAV	Browse
OK Cancel	

## Startup/Shutdown Commands

The dialog box shown is where you can enter your own startup and shutdown commands. These commands are sent to your TNC during startup and shutdown.

Optional Settings	User Defin	ed Macro Variables	Packet Parameters	Packet Paramet
Communications	CallBook	Edit Macros	Startup/Shutdown Command	s Edit Call S
Startup				
Shutdown				
MONITOR OFF				

## **Packet Parameters**

This option automates setting your TNC Packet Parameters. Clicking the "Default Parameters" button resets these parameters to their default settings. Check your TNC manual for the default settings for these parameters and usage of these parameters.

Communications	CallBook Edit Macros	Startup/Shutdown Comman	ds Edit Call S
Optional Settings	User Defined Macro Variable	Packet Parameters	Packet Paramete
Parameters			
Altmodem 0 🛨	Frick 0	🗌 Myalias 🛛 ț	
TAudelay 0 📩	🗖 Gusers 🛛 📮	Mygate 0 📫 Case	edisp 🗾
Axdelay 0	Maxframe 0 📫	Paclen 0 📑 🗌 Bea	con 🔽 0
Check 0 🛃	🗖 Mcon 🛛 📩	Persist 0 📑	ime 🔽 0
🗆 Cmdtime 🛛 🛨	🗖 mfilter 🛛 📑	Resptime 0 🔮	
🗖 Dwait 🛛 💽	Mid 0 🛨	🗖 Tries 🛛 🛨 🗖 Ubit	0 +
Frack 0 🔹	Monitor 0 🐳	Txdelay 0 💉	
Select All for St	artup 🔲 Set TNC Time	and Date from Computer	efault Parameters

## Packet Parameters – Switches

This option automates switching your TNC's packet parameters off or on. Clicking the "Default Parameters" button resets these parameters to their default settings. Check your TNC manual for the default settings for these parameters and usage of these parameters.

Communications	CallBook	Edit Macros	Startup/Shutdown 0	Commands 🕴 Edit Call Sign B
Optional Settings	User Defi	ned Macro Variables	Packet Paramete	ers Packet Parameters - 9
Switches	Const Cpactim Daystamp Codc Fulldup Headerli Hid	<ul> <li>Ilfpac</li> <li>Lite</li> <li>Mbell</li> <li>Mdigi</li> <li>Mproto</li> <li>Mrpt</li> <li>MSta</li> </ul>	<ul> <li>Mxmit</li> <li>Passal</li> <li>Ppersi</li> <li>Relini</li> <li>Squelci</li> <li>Whynot</li> <li>Xmito</li> </ul>	
7.40	ct All for Startup	Default Param	eters	

# **Edit Menu**

## VHF Edit Menu

Edit	
Cut	Ctrl+X
Сору	Ctrl+C
Paste	Ctrl+V
Clear Screen Repeat Last Text	Ctrl+W Ctrl+R
	Ctrl+R

**Cut** - Use this command to remove the currently selected data from the session and put it on the clipboard

**Copy** - Use this command to copy selected data onto the clipboard.

**Paste** - Use this command to insert a copy of the clipboard contents at the insertion point.

Clear Screen - Clears the text from the active text window.

**Repeat Last Text** - Repeats the last text you sent. The text will be put into the active chat window.

**Copy To Call Exchange** – Allows you to copy your contact's call into the call exchange buffer.

**Call Exchange** - Takes the call sign you have copied with "Copy to Call Exchange" and appends it to the information that was created in the settings for Call Exchange.

## Clear Screen

Clears the text from the active text window.

# Repeat Last Text

Repeats the last text you sent. The text will be put into the active chat window.

### Copy to Call Exchange

Copy to Call Exchange allows you to copy your contact's call sign into the call exchange buffer, and then use it by clicking on Call Exchange.

To copy a call sign you need to highlight it and then select the Copy to Call Exchange option from the Edit menu or click the right mouse button on the highlighted call sign and choose "Copy to Call Exchange" from the pop-up menu.

## Call Exchange

Call Exchange takes the call sign you have copied with the Copy to Call Exchange and sends it to the chat window along with your previously stored call sign. Call Exchange settings are accessed by clicking on File, Settings, and then selecting the Edit Call Sign Exchange tab.

To use the call sign in your Call Exchange, select Call Exchange from the Edit menu or click your right mouse button and select "Call Exchange" from the pop-up menu.

# **View Menu**

#### VHF View Menu

П	ρ	v

✓ Toolbar

🗸 Status Bar

Monitor Port 1

Commands Window

Toolbar - Use this command to display and hide the Toolbar.

Status Bar – Use this command to display and hide the Status Bar.

**Monitor Port 1** – Use this command to display and hide the Monitor Port 1 Window.

**Monitor Port 2 -** Use this command to display and hide the Monitor Port 2 Window.

**Commands Window -** Use this command to display and hide the Command Window.

(Check mark indicates it is displayed)

## **Toolbar Command**

Use this command to display and hide the Toolbar, which includes buttons for some of the most commonly used commands in MultiComm Host, such as File, Open. A check mark appears next to the menu item when the Toolbar is displayed.

See Toolbar for help on using the toolbar.

## Status Bar Command

Use this command to display and hide the Status Bar. The Status Bar displays the action to be executed by a selected menu item or depressed toolbar button, and keyboard latch state. A check mark appears next to the menu item when the Status Bar is displayed.

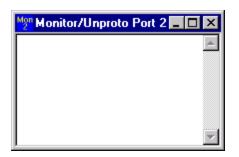
See Status Bar for help on using the status bar.

## Monitor Port 1 Window

Monitor/Unproto Port 1	_ 🗆 🗡
	<b>A</b>
	-

This is where network traffic for Radio Port 1 is viewed.

## Monitor Port 2 Window



This is where network traffic for Radio Port 2 is viewed.

## **Command Window**

CHI Command Window	
MultiTerm: 2wXN TNC: 2wXN (C) 1985-92 InfoMotion, Inc. All rights reserved.	•
Last mod:N2WX 12/23/92	
MultiTerm: UNPROTO TNC: UNPROTO FEST4	Ţ
cmd:	

This is where the commands you send to the TNC and the return value of the commands from the TNC are viewed.

Commands to the TNC can be entered at the "cmd:' Prompt

# **TNC Menu**

## VHF TNC Menu

		_
Connect	F7	1
Disconnect	Shift+Alt+F7	
Commands	۱.	Mheard
Abort Ouick Copport		Version
Abort Quick Connec	1	Send Control A Shift+Ctrl+
		Send Control T Shift+Ctrl+
		Send Control Y Shift+Ctrl+
		Send Control Z Shift+Ctrl+
		Send Command F10

**Connect** – This command brings up the Connect window.

**Disconnect** - This command disconnects the active window from the currently connected station.

**Commands** – Sends program defined commands to the TNC.

Abort Quick Connect – Aborts a Quick Connect.

#### **Connect Command**

There are three ways to connect to a station:

- Press **F2**. This puts you in Command mode. At the cmd: prompt type "**c Call Sign**" and press **<Enter**>.
- Press **F7** or select the Connect command in the TNC menu. That brings up the Connect to Station dialog box. To use Connect you must enter the call sign of the other station and then click the Connect button.
- You can also create a Quick Connect to the stations you use frequently. This allows you to click on the station rather enter it every time you want to connect to it. To create this shortcut, you must select "Add Quick Connect" from the Options menu on the Quick Connect screen.

## **Disconnect Command**

The Disconnect Command disconnects the active window from the currently connected station. There are three ways to disconnect from a station:

- Press **F2** and type "**d**" at the cmd: command prompt. (Without the quotes)
- Press <**Shift-Alt-F7**>.
- Select "Disconnect" from the TNC menu.

## Mheard Command

Selecting the Mheard command returns a list of the stations heard by the TNC. The stations heard response appears in the Command window.

#### Status Command

Selecting the Status command will display the following information in the Command window: the number of bytes available in the TNC buffer, the current I/O stream, and any streams having connected status command. Results of these commands will be in the Command window.

# Version Command

The Version command causes the TNC to display the current version number in the Command window.

### Send Control A

Some bulletin boards and clusters use the *<***Ctrl-A***>* key sequence for text editing. Commands such as these are similar to the standard Windows commands, so MultiComm Host uses *<***Shift-Ctrl-A***>* instead.

Hotkey: <**Shift-Ctrl-A**>.

### Send Control T

Some bulletin boards and clusters use the *<***Ctrl-T***>* key sequence for text editing. Commands such as these are similar to the standard Windows commands, so MultiComm Host uses *<***Shift-Ctrl-T***>* instead.

Hotkey: <**Shift-Ctrl-T**>.

#### Send Control Y

Some bulletin boards and clusters use the *<***Ctrl-Y***>* key sequence for text editing. Commands such as these are similar to the standard Windows commands so MultiComm Host uses *<***Shift-Ctrl-Y***>* instead.

Hotkey: **<Shift-Ctrl-Y**>.

### Send Control Z

Some bulletin boards and clusters use the *<***Ctrl-Z***>* key sequence for text editing. Commands such as these are similar to the standard Windows commands, so MultiComm Host uses *<***Shift-Ctrl-Z***>* instead.

Hotkey: **<Shift-Ctrl-Z**>.

### Send Command

The Send command brings up a Send Command dialog box similar to the one shown below. This allows the user to enter a TNC command. The results of these commands will be in the Command window.

Send Command		×
Command to TNC:		
Send	Cancel	

### Abort Connect

When using a VHF Quick Connect, using this command will abort the Quick Connect. This will not work when you use the regular Connect option.

# Mode Menu

#### VHF Mode Menu

Mode	
✓ Host	
Terminal	
Return to Terminal Mode on Exit	
✓ Unproto	
✓ Minimize all windows when main window is minimized	
Sync with logging program 🔶 🕨	Log Windo
	DX4Win

**Host -** Host Mode operation provides a standardized method of communication between the MFJ TNC and MultiComm Host for Windows.

#### **Terminal** – Terminal Mode operation is a communication mode with the TNC similar to that of a standard (not Host Mode) terminal program.

WS.

#### **Return to Terminal Mode**

**on Exit** – Allows you to exit Host Mode and return to Terminal Mode when the program is closed.

**Unproto** - Unproto Mode operation allows packets to be transmitted without being connected to a station.

Minimize all windows when main window is minimized – Minimizes all open windows when you minimize the main windows. A check mark indicates this command is enabled.

#### Sync with logging

program – Allows MultiComm Host to sync with either Log Windows or DX4Win. MultiComm Host and either Log Windows or DX4Win must be running to use this command.

#### Host Mode

BLP (Host) Mode operation is the normal communications mode between a MFJ TNC and MultiComm Host for Windows. It allows for multi-port, multi-stream and non-packet modes in separate windows, at the same time.

## **Terminal Mode**

Terminal Mode operation is a communication mode with the TNC similar to that of the Windows terminal program, HyperTerminal. All Terminal Mode functions are at the TNC level with the software acting as a "Dumb" terminal.

# Return to Terminal Mode on Exit

When selected, the TNC will be returned to Terminal Mode when exiting the program. You may want to select this choice if you use other programs to operate the TNC, when you are not using MultiComm Host.

## Unproto Mode

Unproto Mode operation allows packets to be transmitted without being connected to a station. These packets are not directed to a specific station, therefore no acknowledge is expected and no retries are attempted. This mode is often used to call CQ and for informal round table chats. This can be used with either Host or Terminal Mode.

### Minimize All Windows when Main Window is Minimized

When this item is checked, the Command Window and Monitor Windows are minimized or maximized when the larger MultiComm Host window is minimized or maximized.

# Sync with logging program

Allows MultiComm Host to sync with either Log Windows or DX4Win. MultiComm Host and either Log Windows or DX4Win must be running to use this command. See the section on Logging Programs for more information.

# **Format Menu**

# Format Menu

Format	
<u>F</u> ont	
<u>C</u> olor	

**Font** - The Font command allows the user to select the type, style and the size of the font used to display text in the window.

**Color** – In the Text box, the Color command allows the user to select the colors of the text, the transmitted text, the command text, and the background. In the Chat box, the user can change the color of the chat text and the background.

## Font Command

The Font command allows the user to select the type, style, and the size of the font used to display text.

Font			? ×
Font: Times New Roman T Times New Roman T Trebuchet MS T Verdana T Webdings T Wingdings T Wingdings 2 T Wingdings 3	Font style: Regular Italic Bold Bold Italic	Size: 15 8 9 10 11 12 14 16 ▼	OK Cancel
	Sample AaBbYy Script:	Zz	

### **Color Command**

The Color command allows the user to select the color of the text and background for the text box, the chat box, the transmitted text box, and the Command window.

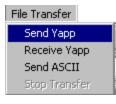
Set Colors		×
Text Box Text Box Text Color Transmitted Text color Command Text Color	Background Color Text Color Transmit Color Commands Color	Cancel
Chat Box Chat Box Text Color	Background Color Text Color	

Selecting any of the four-color boxes brings up the following color chart. By selecting "Define Custom Colors", you are able to choose from common colors for background or you can define new colors to use.

Color	? ×
<u>B</u> asic colors:	
Custom colors:	
Define Custom Colors >>	
OK Cancel	

# File Transfer Menu

### VHF File Transfer Menu



Send YAPP - Sends a file using the binary transfer protocol called YAPP.

**Receive YAPP** – Receives a file using the binary transfer protocol called YAPP.

Send ASCII - Sends an ASCII file with no protocol.

Stop Transfer - Stops any file transfer (YAPP or ASCII).

#### Send YAPP

Sends a file using the binary transfer protocol called YAPP.

Send YAPP allows you to transfer a file (text, binary, picture, etc.) from your computer to another station.

To send a file with YAPP upload, first make sure you are in the session window of the station to which you want to send a file. If you are connected to a BBS, you will want to tell the BBS that you are doing a YAPP upload before you start your transfer. After the other station is ready to receive, pick the Send YAPP option from the File Transfer menu. A file dialog box will come up. Now you can pick the file to transfer or cancel the transfer.

After you pick the file, the YAPP upload will begin. Note that all the file transfer information is updated on the status bar for the current session. This will let you know the progress of your file transfer. You can also continue to chat with the other station while the transfer takes place.

After the transfer is done, the status bar will be updated.

To abort a transfer, select the 'Stop Transfer' from the menu or click the Stop button the toolbar.

#### **Receive YAPP**

Receives a file using the binary transfer protocol called YAPP.

Receive YAPP allows you to receive a file (text, binary, picture, etc.) from another station using the YAPP Download transfer protocol.

To receive a file with YAPP Download, first make sure you are in the session window of the station sending you the file. If you are connected to a BBS, you will need to start the YAPP transfer from the BBS before Downloading in MultiComm Host. After the other station is ready to send, pick the Receive YAPP option on the menu. A file dialog box will come up. Now you can enter a file name for the transferred file or cancel the transfer.

After you name the file, the YAPP download will begin. Note that all the file transfer information is updated on the status bar for the current session. This will let you know the progress of your file transfer. You can also continue to chat with the other station while the transfer takes place.

When the transfer is finished, the status bar will be updated.

To abort a transfer, select 'Stop Transfer' from the menu or click the Stop button on the toolbar.

### Send ASCII

Sends an ASCII text file with no protocol. This option allows you to upload ASCII files while connected to another station. To send an ASCII file with this option, you will be presented with a dialog box asking you for the filename. Choose the filename and click the OK button. The file

will be transferred. To abort the transfer, click on the Stop button or select the "Stop Transfer" menu option.

# Stop Transfer

Stops any file transfer (YAPP or ASCII). When the Stop button is selected, any remaining text or data that has not been sent to the TNC is terminated. You may see some text on the screen after the transfer is aborted. This is normal due to emptying of the buffer or the TNC emptying.

# Lookup Menu

# Lookup Menu



**Call Sign** – Allows the user to look up a particular call sign.

### Call Sign Lookup Command

The Call Sign Lookup command allows the user to look up a particular call sign. You enter the call sign and click the "Lookup" button to look up the call sign in the CallBook specified in the MultiComm Host Settings. Information about the call sign is then displayed. Before the information is returned from the CD CallBook, you can enter or modify the contact information for that station in the MultiComm Host contact database.

Callsign Lookup a	nd Database	×
CallSign:		Lookup
र		
Nickname:		QTH:
Last		Mode:
Database Add	Delete	Get data from CD
[	OK	Cancel

# **Macros Menu**

# Macros Menu

Macros		
Empty	<ctrl 1=""></ctrl>	
Empty	<ctrl 2=""></ctrl>	
Empty	<ctrl 3=""></ctrl>	
Empty	<ctrl 4=""></ctrl>	
Empty	<ctrl 5=""></ctrl>	
Empty	<ctrl 6=""></ctrl>	
Empty	<ctrl 7=""></ctrl>	
Empty	<ctrl 8=""></ctrl>	
Empty	<ctrl 9=""></ctrl>	
Empty	<ctrl 0=""></ctrl>	
Mode Macros		►

A **Macro** is user-defined text that is associated with a particular keystroke. There are 10 global macros for VHF, 10 global macros for HF, and 10 specific macros for each HF mode. To create a macro, select the Settings option from the File menu and click on the Edit Macros tab to get the Edit Macro Settings page. Pick a name for the macro and then enter the information in the macro text window.

#### Macros

Macros are messages that the user is able to define and assign to a keystroke. You can create up to ten different global macros in both Packet and Non-Packet HF modes. Also each of the Non-Packet HF modes can have up to 10 mode-specific macros.

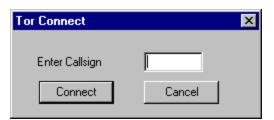
# **MultiComm Host HF Controls**

# **HF View**

<mark>HF HF Window</mark> File <u>E</u> dit <u>V</u> iew Mode	Format File Transfer	INC <u>C</u> W <u>R</u> TTY Ag	rii Noutos ómtos	Pactor Lookup Rig Contro
		INC CW BITTY AN PSK F N T		
C <sub>Q</sub> Times: 1 =	Interval: 1 =		1 H2 H3 H4 H5	H6 H7 H8 H9 H10
-014-				
<cw></cw>				
c				
<u>.</u>				

# Link to a Station

To link to another station, you need to click the Link button in the toolbar. You will be presented with a TOR Connect box where you can enter the SELCAL of your contact.



# **Disconnect from a Station**

To disconnect from a station, click the Disconnect button D in the toolbar.

# Sending to Receiving Data

The station that initiates the link starts as the Information Sending Station (ISS)



The station receiving a link request and linking starts as the Information Receiving Station (IRS) IR<sub>S</sub>

As ISS you may send information by typing in the chat window which is immediately below the text window and above the status bar. Once you have finished typing the text you want to send, you can click either the ISS or the IRS button to change the information direction. Once you have done that, the link will sound different and the status bar will reflect your station as IRS.

### **Changing HF Data Transmit Mode**

A new feature in MultiComm Host is the HF Data Transmit Mode. With this new option you can choose one of many ways to send your HF communications. The settings are (1) Character Mode (2) Word Mode or (3) Line Mode.

**Character Mode**: With this setting selected, MultiComm Host will transfer data after each character is entered. For example, if you were typing in CQ CQ CQ DE N4GDO K, then MultiComm Host would transmit as follows:

(T)=transmit Data to TNC

```
C(T) Q(T) C(T) Q(T) C(T) Q(T) D(T) E(T) N(T) 4(T) G(T) D(T) O(T) K(T)
```

**Word Mode**: If you select this option, then MultiComm Host will transmit after every word or every time you press the **Space**> bar or the **Enter**> key. To send a carriage return without transmitting data, press **Ctrl-Enter**>. For example, if you were sending CQ CQ DE N4GDO K, then it would be transmitted as follows:

(T)=Transmitted data to TNC

CQ(T) CQ(T) CQ(T) DE(T) N4GDO(T) K(T)

**Line Mode**: When you select this option, MultiComm Host will transmit to the TNC every time you press the **<Enter>** key. This allows you to wait until you have typed everything you wish to send before MultiComm Host sends the data in one big burst. To send a carriage return without transmitting data, press **<Ctrl-Enter>**. Using the same example as above the data would be transmitted as follows:

(T)=Transmitted data to TNC

CQ CQ CQ DE N4GDO K. (T)

In order to take advantage of this feature, simply click on Settings in the File menu.

Eile	
New HF Packet Session	
New VHF Packet Session	
New <u>H</u> F Session	Ctrl+H
<u>O</u> pen File	Ctrl+O
View <u>A</u> nsi file	
<u>C</u> lose	
<u>S</u> ave	Ctrl+S
Save <u>A</u> s	
Settings	
Print	Ctrl+P
Print Pre <u>v</u> iew	
P <u>r</u> int Setup	
E <u>x</u> it	

After the Settings window appears on your screen, simply choose the Optional Settings tab at the top of the Settings window and you will see the following window:

Settings				X
Communications Edit Call Sign Exchar	CallBook nge Opt	Edit Macros ional Settings	Startup/Shutdown Commands User Defined Macro Variables	
MAXUSERS Port 1	on startup		Clock Display Format Local UTC ① 12 hr ① 12 hr ② 24 hr ④ 24 hr	
A B C D N O P Q	E F G H R S T U	IJKLM VWXYZ	Spot Voice	
1 2 3 Connect	4 5 6 7	890 Disconnect	HF Transmit Mode Character Mode Line Mode Word Mode	
	Turn On Sound	<b>V</b>	✓ Use 16 bit Logwindows Interface	
		ОК С	Cancel Apply Help	

When this screen appears, simply choose the mode you would like to use.

# **DSP-RTTY**

DSP RTTY uses the internal RTTY in a Timewave DSP-599. RTTY is the acronym for Radio Teletype.

To make a DSP RTTY contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) You need to be in DSP RTTY Mode. To check the current mode, look at the status bar.
- 3) There are two ways to change modes:
  - a) Select DSP RTTY from the Mode menu.
  - b) Click on the DSP RTTY button in the toolbar.
- 4) Once you are in the correct mode (notice the mode in the status bar), you need to tune to the DSP-RTTY signal according to the specifications in your Timewave DSP-RTTY manual.
- 5) When it is tuned correctly, you will start to see the RTTY characters in the text window.
- 6) Now you are ready to reply or call CQ. There are two ways to accomplish this.
  - a) Type data in the chat box and press **<Enter>**. Pressing **<Enter>** turns on the transmitter. It then transmits the data to the TNC and switches back to receive automatically. Use **<Ctrl-Enter>** to send a carriage return without turning on the transmitter.
  - b) You can also click the Transmit button in the toolbar and type your message in the chat box. With this you send one (1) character at a time. Then you must click the Receive button Receive. This clears the chat buffer.
- 7) Now you are ready to Call CQ again or receive DSP RTTY from another station.

# **HF File Menu**

### HF File Menu

This is the HF File menu

<u>F</u> ile		
<u>0</u> p	oen File	Ctrl+O
<u> </u>	ose	
<u> </u>	ive	Ctrl+S
Sa	ive <u>A</u> s	
HF	Non Packet Settings	
	Non Packet Settings	Ctrl+P
 _ <u>P</u> ri		Ctrl+P

**Open File** - Use this command to open an existing document.

**Close** - Use this command to close the active session.

**Save** - Use this command to save the active session to its current name and directory.

**Save As** - Use this command to save and enter different name for the active session.

**HF Non Packet Settings** - Allows you to specify specific settings for the different HF Non Packet modes.

**Print** - Use this command to print a document.

**Print Setup** - Allows you to set different parameters for printing.

**Exit** - The Exit command closes the HF window.

### HF Non Packet Settings

Below is a list of the different HF Non Packet Settings screens.

- ASCII Settings
- CW Settings
- RTTY Settings
- NAVTEX Settings
- AMTOR Settings
- PACTOR Settings
- PSK31 Options
- Edit Call Sign Exchange
- User Defined Macro Variables
- Edit Macros
- CQ, ID and QRT Macros

#### **AMTOR Settings**

- MYSELCAL Sets your 4 character AMTOR SELCAL.
- **CWCALL** Sets the 15 characters that are sent as CW when you issue the ID character. The CWCALL is sent following the QRA signal.
- ALTCALL Set a 4 letter alternate SELCAL for use in AMTOR Mode A.
- **TXDELAY** Sets the delay between the time the transmitter is keyed and the time the data is sent.
- Use ALTCALL Uses the alternate SELCAL set up with ALTCALL
- **Invert TX Tones** Switches the MARK and SPACE transmit tones. This might be used, for example, when you are on LSB and the other station is on USB.
- **Invert RX Tones** Switches the MARK and SPACE receive tones. This might be used, for example, when you are on LSB and the other station is on USB.
- Print Mode S Transmission Displays S Mode Transmissions that are addressed to your SELCAL.
- Selectively Monitor Mode B Turns MATCH On and selectively monitors Mode B FEC transmissions that match the strings in the MBEGIN and MEND commands
- Underscore displayed if error If the TNC detects an error during reception, it will display an underscore character (\_).
- Echo After Sent Echos text that is sent for transmission when it is sent rather than echoing text as you type.
- Convert to Lower Case Upper case characters will be translated to lower case characters.
- **Continuous Retries on Connection Fail** The maximum number of times a packet is retransmitted after no acknowledgment before the transmission is aborted.
- MATCH Text MBEGIN A parameter up to 15 characters long that is used to print a Mode B transmission with the string in MBEGIN is matched.
- MATCH Text MEND A parameter up to 15 characters long that is used with MATCH and MBEGIN to stop displaying or printing a Mode B transmission when the string in MEND is matched.
- WRU (ANSBSTR) text Who Are You text This is personal information about yourself that is automatically sent by the TNC in response to a "Who Are You?". It can be up to 15 characters in length.

HF Non-Packet Settings
User Defined Macro Variables PSK31 Options CQ, ID and QRT Macros CW Settings NAVTEX Settings Edit Macros Edit Call Sign Exchange AMTOR Settings PACTOR Settings ASCII Settings RTTY Settings
MYSELCAL CWCALL
Use ALTCALL       Underscore displayed if error         Invert TX Tones       Echo After Sent         Invert RX Tone       Convert to Lower Case         Print Mode S Transmissio       Continuous retries on Connec         Selectively monitor Mode B         MATCH Text         MBEGIN         MEND
WRU (ANSBSTR) text
OK Cancel Apply Help

### **ASCII Settings**

- Unshift on Space The receiver shifts to LTRS case when a SPACE character is received. UNSHIFT may not be compatible with stations transmitting weather information or strings of numeric text.
- **Diddle Character** If this item is checked, a diddle character is sent when no characters are available from the keyboard or buffer during transmission.
- Add LF to sent CR Adds an extra Line Feed when a Carriage Return is sent.
- Mars Display Translates LTRS characters to <Ctrl-O> and FIGS characters to <Ctrl-N> and sends these to the terminal.
- **Invert TX Tones** Switches the MARK and SPACE transmit tones. This might be used, for example, when you are on LSB and the other station is on USB.
- **Invert RX Tones** Switches the MARK and SPACE receive tones. This might be used, for example, when you are on LSB and the other station is on USB.
- **European RTTY Tones** Uses low tones that are standard in Europe for RTTY and ASCII operation, with a MARK of 1275 Hz, SPACE of 1445 Hz, and a frequency shift of 170 Hz.
- Echo as Sent Echoes text that is sent for transmission when it is sent rather than echoing text as you type.
- **Baud** Select the character transmission and receive speed in baud.

#### **CW Settings**

- **CW Speed** This command sets the MSPeed used when transmitting in CW Mode.
- **CW Weight** Allows you to set the weight of the CW code elements generated by the keyboard or key paddle. The default is a dot-to-space ratio of 1:1. A setting of 0 set the weight factor to the default. A number from 1 to 127 increases the dot-to-space ration. A number from 128 to 255 decreases the dot-to-space ratio.
- Echo As Sent Echoes text that is sent for transmission when it is sent rather than echoing text as you type.
- Auto Track Transmit Speed Allows you to match your transmit speed to the speed on the incoming CW signals.
- Auto Track Receive Speed Allows automatic tracking of the speed of incoming CW signals. If the speed of the incoming signal changes significantly, the TNC will LOCK to the new speed.
- **Farnsworth Spacing** Enables Farnsworth spacing where 15 WPM equivalent letters and elements are used.

HF Non-Packet Settings	×
User Defined Macro Variables PSK31 Options CQ, ID and QRT Macro AMTOR Settings PACTOR Settings ASCII Settings RTTY Settin CW Settings NAVTEX Settings Edit Macros Edit Call Sign Exchan	gs
CW Speed 🔄 🛨 CW Weight 1 🛟	
<ul> <li>Echo As Sent</li> <li>Auto Track Transmit Speed</li> <li>Auto Track Receive Speed</li> <li>Farnsworth spacing</li> </ul>	
OK Cancel Apply Help	

### **PACTOR Settings**

- Auto Line Feed In A linefeed character is added when a carriage return is received during PACTOR monitoring (AUTOLF).
- Auto Line Feed Out A linefeed character is added after a carriage return in transmitted text (LFADD).
- Connect Bell Causes a bell tone to sound when a PACTOR connection is established (CBell).
- Changeover Bell Causes a bell tone to sound when a PACTOR changeover occurs (CHObell).
- **Exact Call Matching** Causes the TNC to respond to connect packets that exactly match the letters in your callsign (EXActcal).
- **Rapid LED Flash at 200 baud** The TNC's LEDs flash rapidly for each cycle where a 2000 baud packet is sent, received, or expected (LEdmode).
- Echo characters as Sent Echoes transmitted text after receipt of a remote acknowledgment rather than echoing text as you type (EAa).
- Monitor Enables the monitoring of all packet activity (Monitor).
- **Timeout Attempts** Sets the number of timeout attempts.
- Unproto Initiates 100 baud or 200 baud FEC.
- Wait Select the time delay between the depression of the PTT and the start of packet transmission.
- MaxDown Sets the maximum number of received 200 baud information packets that contain errors before the TNC requests a SPEEDdown to 100 baud.
- **MaxSum** Sets the number of cycles of received error-laden information packets that are accumulated for reconstruction.
- MaxUp Sets the maximum number of received error-free 100 baud information packets before the SPEEDUP to 200 baud is requested.
- **ID Time** Sets the time interval between automatically generated CWID events.
- **Unproto Speed** Sets the FEC baud rate.

#### **RTTY Settings**

- Unshift On SPACE When this option is checked, an unshift to letters can occur when a SPACE is received.
- **Diddle Character** If this item is checked, a diddle character is sent when no characters are available from the keyboard or buffer during transmission.
- Add LF to sent CR Adds an extra Line Feed when a Carriage Return is sent.
- MARS Display Translates LTRS characters to <Ctrl-O> and FIGS characters to <Ctrl-N> and sends these to the terminal.
- **Invert TX Tones** Switches the MARK and SPACE transmit tones. This might be used, for example, when you are on LSB and the other station is on USB
- **Invert RX Tones** Switches the MARK and SPACE receive tones. This might be used, for example, when you are on LSB and the other station is on USB
- **European RTTY Tones** Uses low tones that are standard in Europe for RTTY and ASCII operation, with a MARK of 1275 Hz, SPACE of 1445 Hz, and a frequency shift of 170 Hz.
- Echo As Sent Echoes text that is sent for transmission when it is sent rather than echoing text as you type.
- **Baud** Select the character transmission and receive speed in baud.

HF Non-Packet Settings
HF Non-Packet Settings User Defined Macro Variables PSK31 Options CQ, ID and QRT Macros CW Settings NAVTEX Settings Edit Macros Edit Call Sign Exchange AMTOR Settings PACTOR Settings ASCII Settings RTTY Settings Unshift On Space Invert TX Tones Add LF to sent CR Mars Display Echo As Sent Baud: 45
OK Cancel Apply Help

### NAVTEX Settings

- **NAVTEX Originating Stations** This command specifies which originating stations will be copied in the NAVTEX mode.
- **NAVTEX Message Classes** This command specifies which classes of NAVTEX messages will be sent to the attached terminal.

Non-Packet Settings	×
User Defined Macro Variables PSK31 Options CQ, ID and QRT Macro AMTOR Settings PACTOR Settings ASCII Settings RTTY Setting	
CW Settings NAVTEX Settings Edit Macros Edit Call Sign Exchange	
NAVTEX Originating Stations V A V B V C V D V E V F V G V H V I V J V K V L V M V N V O V P V Q V R V S V T V U V V V V X V Y V Z NAVTEX Message Classes V A V B V C V D V E V F V G V H V I V J V K V L V M V N V O V P V Q V R V S V T	
OK Cancel Apply Help	

### **PSK31** Options

- **Keying** Choose the appropriate option for the method you will be using to key PSK31. If you choose to use an external keyer on a separate serial port, you must also choose the COM port where the keyer is attached.
- Squelch Speed This is a user selectable response speed. If the signal value exceeds the threshold specified, PSK31 characters will be decoded. Under good signal conditions, a fast response may be best. Under noisy signal conditions, you may need to select a slower response. Larger values will give a slower response speed.
- **AFC Limit** An AFC Limit can be selected from 0 to 1000 Hz. The PSK center frequency is restricted to plus or minus the AFC limit in Hz.
- Sound Card Clock Adjust This option is used to compensate for sound cards that are off frequency. Increasing the Sound Card Clock Adjust makes the sound card clock faster. Decreasing it will make the sound card clock slower.
- Sound Card Devices Select whether you want to use your preferred or default sound card device. If you have more than one sound card, you can select which sound card device you want to use.
- **TNC PSK31 Hardware Interface Installed** Enables the MFJ PSK31 Hardware Interface, if installed with your TNC.

### CQ, ID and QRT Macros

- **Macro** This is where you type in the macro that will be executed when the CQ, ID or QRT buttons are pressed.
- **CQ** Text to be sent when you call CQ.
- **ID** Your call sign and other identification you may want to send.
- **QRT** Your sign off text

F Non-Packet Setti	ngs	>
AMTOR Settings	PACTOR Settings ASCII Settings	RTTY Settings
CW Settings N User Defined Macr	E	all Sign Exchange and QRT Macros
Oser Denned Mach	Valiables PSKST Options Call 10	
	•	
Macro		
		_
	⊙CQ OID OQRT	
		(
	OK Cancel Apply	Help

#### **Edit Macros**

A Macro is user-defined text that is associated with a particular keystroke. This dialog box allows you to create macros. There are 10 global macros for VHF, 10 global macros for HF, and 10 macros for each HF mode. Pick a name for the macro and then enter the information in the macro text window. (You can use **<Ctrl-Enter>** to insert a carriage return into the macro text). You can create a macro using the user-defined macro variables as shown in the picture below. The name you specify for the new macro will show up in the Macro menu.

HF Non-Packet Settings
User Defined Macro Variables PSK31 Options CQ, ID and QRT Macros AMTOR Settings PACTOR Settings ASCII Settings RTTY Settings CW Settings NAVTEX Settings Edit Macros Edit Call Sign Exchange
Macro Name:
Macro
{call} DE {mycall} Hi there {name}, My name is {myname} and my QTH is {qth}. My Selcal is {selcal}. The current time is {time} and the current date is {date}.
<ul> <li>HF Global Macros</li> <li>Packet Macros</li> <li>PK-31</li> <li>CW Macros</li> <li>RTTY Macros</li> <li>ASCII Macros</li> <li>Amtor Macros</li> <li>Pactor Macros</li> <li>Macro Num: 1</li> </ul>
OK Cancel Apply Help

## Edit Call Sign Exchange

This box allows you to edit your call sign and the other station's call sign to be used with the Call Exchange hot key.

HF Non-Packet Settings 🛛 🗙
User Defined Macro Variables PSK31 Options CQ, ID and QRT Macros AMTOR Settings PACTOR Settings ASCII Settings RTTY Settings CW Settings NAVTEX Settings Edit Macros Edit Call Sign Exchange
Your call sign: DE N4GDD
Other station:
OK Cancel Apply Help

#### **User Defined Macro Variables**

These variables can be used in the macros that you create in the Edit Macros Settings. The macros can be created using variable names and when these variables change, the macro changes automatically. Click each setting for a description. There are five macro variables you can use that are not listed. Three of the macros are taken from your system clock - {date}, {time} and {utctime}. The {utctime} macro variable shows Greenwich Mean Time. The other two are {xmit} and {rec}. The {xmit} variable turns the Transmitter on and the {rec} variable turns the Transmitter off. These two variables can only be used in HF macros. With the release of version 1.5 of MultiComm Host, another macro variable to keep track of the number of contacts you make. For example you could set up a macro in the 'Edit Macro' tab of the Settings screen with the following macro:

This is {mycall} from {qth} you are contact number {sn}

This macro would read as:

This is N4GDO from Florence, AL you are contact number 1.

With the {sn} macro, MultiComm Host will remember the number of times you ran the macro and will increment the number displayed by 1 each time. MultiComm Host will remember the number that was last used even when you close down the program, so you can take a break from the contest to eat. When you come back the number will be the same as when you left. To restore the number back to zero at the end of the contest or at the beginning of a new one simply go to the 'User Defined Macro Variables' tab in the Settings window and change the number in the {sn} field to 0.

HF Non-Packet Settings	×
AMTOR Settings PACTO CW Settings NAVTEX Se User Defined Macro Variables	IR Settings ASCII Settings RTTY Settings ttings Edit Macros Edit Call Sign Exchange PSK31 Options CQ, ID and QRT Macros
{call}	{name}
{mycall} KF4WGU	{myname} Sydney
{selcal}	{qth}
{sn} 1	Manually Update S/N
	Append zeros to S/N
ОК	Cancel Apply Help

# **HF Edit Menu**

#### HF Edit Menu

This is the HF Edit menu. For more information on each option, click on it.

Edit	
Cu <u>t</u>	Ctrl+X
<u>С</u> ору	Ctrl+C
<u>P</u> aste	Ctrl+V
Clear <u>S</u> creen	Ctrl+W
Clear <u>S</u> creen <u>R</u> epeat Last Text	Ctrl+W Ctrl+R

**Cut** - Use this command to remove the currently selected data from the session and put it in the clipboard

**Copy** - Use this command to copy selected data onto the clipboard.

**Paste** - Use this command to insert a copy of the clipboard contents at the insertion point.

**Clear Screen** - Clears the text from the active text window.

**Repeat Last Text** - Repeats the last text you sent. The text will be put into the active chat window.

**Copy To Call Exchange** - Allows you to copy your contact's call sign into the call exchange buffer.

**Call Exchange** - Takes the call sign you have copied with Copy to Call Exchange and appends it to the information that was created in the Settings for call exchange.

## **HF View Menu**

#### HF View Menu

This is the HF View menu.



Toolbar - Use this command to display and hide the Toolbar.
Status Bar – Use this command to display and hide the Status Bar.
Wordwrap – Causes text to wrap to the next line when reaching the end of the window.

(Check mark indicates it is being displayed)

# Wordwrap Command

Wraps line around to the next line when characters reach the right edge of the screen.

**HF Mode Menu** 

#### HF Mode Menu

#### This is the HF Mode menu.

Mode		-
✔ CW		
RTTY		
ASCII		
Navtex		
AMTOR	۲	
PACTOR		L
Sync with logging program	×	Log Windows
		Dx4Win

**CW** - Sets the current HF mode to CW.

**RTTY** - Sets the current HF mode to RTTY.

ASCII - Sets the current HF mode to ASCII.

**NAVTEX** - Sets the current HF mode to NAVTEX.

**AMTOR** - Sets the current HF mode to AMTOR.

**PACTOR** - Sets the current HF mode to PACTOR.

**Sync with Log Windows** - Allows MultiComm Host to sync with Log Windows<sup>TM</sup>. Both Log Windows and MultiComm Host must be running to use this command.

**Sync with Dx4Win** - Allows MultiComm Host to sync with DX4WIN<sup>™</sup>. Both DX4WIN and MultiComm Host must be running to use this command

CW is another name for Morse code.

#### To make a CW contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) To change modes:
  - a) Select CW from the Mode menu.
  - b) Click on the CW button in the toolbar.
- 3) Once you are in the correct mode (notice the mode in the status bar), you need to tune the CW signal according to the specifications in your MFJ TNC manual.
- 4) When it is tuned correctly, you will start to see the CW characters in the text window.
- 5) Now you are ready to reply or call CQ. There are two ways to accomplish this.
  - b) Type text in the chat box and press <Enter>. Pressing <Enter> turns on transmit. It then transmits the text from the chat box and then switches back to receive automatically. To send a carriage return without turning on the transmitter, press <Ctrl-Enter>.
  - b) You can also click on the Transmit button and type your message in the chat box. With this, you send one (1) character at a time. Then you must click the Receive

6) Now you are ready to call CQ again or receive CW from another station.

button **R** to receive. This clears the chat buffer.

#### RTTY

To make a RTTY contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) You need to be in RTTY mode. To check the current mode, look at the status bar.
- 3) There are two ways to change modes:
  - a) Select RTTY from the Mode menu.
  - b) Click on the RTTY button **I** in the toolbar.
- 4) Once you are in the correct mode (notice the mode in the status bar), you need to tune the RTTY signal according to the specifications in your MFJ TNC manual.
- 5) When it is tuned correctly, you will start to see the RTTY characters in the text window.
- 6) Now you are ready to reply or call CQ. There are two ways to accomplish this.
  - a) Type text in the chat box and press **<Enter>**. Pressing **<Enter>** turns on the transmitter. It then transmits the text to the TNC and then switches back to receive automatically. To send a carriage return without turning on the transmitter, press **<Ctrl-Enter>**.
  - b) You can also click the Transmit button and type your message in the chat box. With this, you send one (1) character at a time. Then you must click the Receive button to receive. This clears the chat buffer.
- 7) Now you are ready to call CQ again or receive RTTY from another station.

#### ASCII

To connect using ASCII:

- 1) First Open a New HF Window from the File menu.
- 2) To change modes:
  - a) Select ASCII from the Mode menu.
  - b) Click on the ASCII button **I** in the toolbar.
- 3) Once you are in the correct mode (notice the mode in the status bar), you need to tune to the ASCII signal according to the specifications in your MFJ TNC manual.
- 4) When it is tuned correctly, you will start to see the ASCII characters in the text window.
- 5) Now you are ready to reply or call CQ. There are two ways to accomplish this.
  - a) Type text in the chat box and press **<Enter>**. Pressing **<Enter>** turns the transmitter on. It transmits the text to the TNC, and then switches back to receive automatically. To send a carriage return without turning on the transmitter, press **<Ctrl-Enter>**.
  - b) You can also click the Transmit button and type your message in the chat buffer. With this, you send one (1) character at a time. Then you must click the Receive button
     R to receive. This closer the shot buffer and turns off the transmitter.

to receive. This clears the chat buffer and turns off the transmitter.

6) Now you are ready to call CQ again or receive ASCII from another station.

## NAVTEX

NAVTEX is transmitted with Mode B AMTOR (FEC). NAVTEX is sent with a unique message format to identify the sending station, the type of message, and the message sequence number. NAVTEX is a receive-only mode.

To make a NAVTEX contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) You need to be in NAVTEX mode. To check the current mode, look at the status bar.
- 3) There are two ways to set the mode.
  - a) Select NAVTEX from the Mode menu.
  - b) Click on the NAVTEX button in the toolbar.
- 4) Once you are in the correct mode (notice the mode in the status bar), you need to tune to the NAVTEX signal according to the specifications in your MFJ TNC manual.

#### AMTOR

There are two basic modes for AMTOR operation. Mode A operation is called ARQ. ARQ is a one-to-one mode, meaning you are allowed to communicate with only one station at a time. Mode B operation is called FEC. This mode is similar to RTTY. Unlike ARQ, FEC is a continuous broadcast.

To make an AMTOR contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) You need to be in Listen AMTOR mode. To check the mode, look at the status bar.
- 3) To change modes:
  - a) To connect to Mode A:
    - i) Select Listen AMTOR mode from the Mode menu.
    - ii) Click on the Listen AMTOR button . Tune to the AMTOR signal according to the specifications in your MFJ TNC manual.
    - iii) Click on the AMTOR button A if you want to call CQ. Then click the "T" button to turn on the transmitter.
    - iv) To link to another station, you need to select Link from the AMTOR menu or

click the Link button on the toolbar. This will bring up a Tor Connect box where you need to enter the SELCAL of your contact.

Tor Connect		×
Enter Callsign		
Connect	Cancel	

- v) To Call CQ:
  - Type text in the chat buffer and press <Enter>. Pressing <Enter> turns on the transmitter. It then transmits the text to the TNC and then switches back to receive automatically. To send a carriage return without turning on the transmitter, press <Ctrl-Enter>.
  - (2) You can also click the Transmit button , and type your message in the chat box. With this you send one (1) character at a time. Then you must click the Receive button to receive. This clears the chat buffer.

- vi) To disconnect, select the Disconnect option from the AMTOR menu or click the Disconnect button **D** on the toolbar.
- b) To connect to mode B:
  - i) Select FEC mode from the Mode menu.
  - ii) Click on the FEC button F in the toolbar.
  - iii) Once you are in the correct mode (notice the mode in the status bar), you need to tune to the FEC signal according to the specifications in your MFJ TNC manual.
  - iv) When it is tuned correctly, you will start to see the FEC characters in the text window.
  - v) Now you are ready to reply or call CQ. There are two ways to accomplish this.
    - Type text in the chat box and press <Enter>. Pressing <Enter> turns on the transmitter. It then transmits the text to the TNC and then switches back to receive automatically. To send a carriage return without turning on the transmitter, press <Ctrl-Enter>.
    - (2) You can also click the Transmit button in the toolbar and type your message in the chat buffer. With this you send one (1) character at a time.

Then you must click the Receive button **R** to receive. This clears the chat buffer and turns off your transmitter.

vi) Now you are ready to call CQ again or receive FEC from another station.

#### Listen AMTOR

Listen AMTOR allows you to tune to an ARQ signal without being part of the link. From Listen AMTOR you are able to display the text, but no error correction takes place.

To make a Listen AMTOR contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) There are two ways to select the mode.
  - a) Select AMTOR\_Listen from the Mode menu
  - b) Click on the Listen AMTOR button Lin the toolbar.
- 3) Once you are in the correct mode (notice the mode in the status bar), you need to tune to the Listen AMTOR signal according to the specifications in your MFJ TNC manual.

This option places the TNC in the Listen AMTOR mode. The TNC will receive FEC, SELFEC, or ARQ signals and will not transmit when in AMTOR\_Listen mode. You can link to a station in AMTOR\_Listen mode. Click the Link button in the toolbar and type in the call sign. MultiComm Host will set the TNC to AMTOR mode to make the connection.

#### FEC

FEC is the acronym for Forward Error Correction. This is Mode B in AMTOR.

#### To make a FEC contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) To change modes:
  - a) Select FEC from the Mode menu.
  - b) Click on the FEC button **F** in the toolbar.
- 3) Once you are in the correct mode (notice the mode in the status bar) you need to tune to the FEC signal according to the specifications in your MFJ TNC manual.
- 4) When it is tuned correctly you will start to see the FEC characters in the text window.
- 5) Now you are ready to reply or call CQ. There are two ways to accomplish this.
  - a) Type text in the chat box and press **<Enter>**. Pressing **<Enter>** turns on the transmitter. It then transmits the text to the TNC and then switches back to receive automatically. To send a carriage return without turning on the transmitter, press **<Ctrl-Enter>**.
  - b) You can also click the Transmit button in the toolbar and type your message in the chat buffer. With this you send one (1) character at a time. Then you must click the Receive button **R** to receive. This clears the chat buffer.
- 6) Now you are ready to Call CQ again or receive FEC from another station.

### PACTOR

PACTOR uses a handshaking system to send data. An ACK (acknowledgment) is sent when data is received intact and a NAK is sent for corrupted data.

#### To make a PACTOR contact you must:

- 1) First Open a New HF Window from the File menu.
- 2) You need to be in PACTOR mode. To check the current mode, look at the status bar.
- 3) There are two ways to change modes:
  - a) Select PACTOR from the Mode menu.
  - b) Click on the PACTOR button P in the toolbar.
- 4) Once you are in the correct mode (notice the mode in the status bar), you need to tune to the PACTOR signal according to the specifications in your MFJ TNC manual.
- 5) When it is tuned correctly, you will start to see the PACTOR characters in the text window.
- 6) Now you are ready to request a link or call CQ.
- To connect, select the PACTOR Connect option from the PACTOR Menu and type in the call sign you want to connect to. Click the Connect button. To change from IRS to ISS use the appropriate buttons.
- 8) To call CQ you need to click the Transmit button in the toolbar and type your message in the chat buffer. This will send one (1) character at a time. Then you must click the Receive button R to receive. This clears the chat buffer.
- 9) To disconnect select PACTOR Disconnect.

# **HF Format Menu**

# HF File Transfer Menu

## HF File Transfer Menu

This is the HF File Transfer menu.



Send ASCII - Sends an ASCII file with no protocol.Abort ASCII Transfer - Stops an ASCII file transfer.

# **HF TNC Menu**

### HF TNC Menu

This is the HF TNC menu.

INC				
C <u>o</u> mmands			Send <u>C</u> ommand F10	
∐∠mit On	F4	1		
✓ ⊠mit Off	F5			
<u>P</u> ause Xmit	F8			
Kill Xmit Buffer	F9			
<u>T</u> ransmit By		۲		

**Commands** - These are some commands available in HF for the TNC.

Xmit On - Turns the transmitter on.

Xmit Off - Turns the transmitter off.

**Pause Xmit** - Returns to Receive mode immediately in FEC.

**Kill Xmit Buffer** - This stops the transmission and clears out the TNC transmit buffer.

**Transmit By** – Allows you to choose to transmit text after each character, transmit after each word or space, or transmit after pressing **<Enter**>.

# Transmit On

Turns the transmitter on in a non-linked mode. There are three ways to turn Transmit on:

- Click on the Transmit button I in the toolbar.
- Press **F4**.
- Select "Transmit On" from the TNC menu.

#### Shortcuts

Toolbar:	T
Hotkey:	F4

### Transmit Off

Turns the transmitter off in a non-linked mode. There are three ways to turn Transmit off:

- Click on the Receive button R in the toolbar to change from Transmit to Receive.
- Press **F4** or **F5**.
- Select "Transmit Off" from the TNC menu.

R

#### Shortcuts

Toolbar:	

Hotkey: F4 or F5

## Pause Xmit

Pause Transmit Option. Returns to Receive mode immediately in FEC. Characters still in the TNC transmit buffer will remain there.

## Kill Xmit Buffer

Kill Transmit Buffer. This stops the transmission and clears out the TNC transmit buffer.

# Transmit By

Allows you to choose to transmit text after each character, to transmit after each word or space, or to transmit after pressing **<Enter>**. You can use **<Ctrl-Enter>** to send a Carriage Return without transmitting the text.

# **CW Menu**

# CW Options

These are the CW commands.



**Lock CW Speed** - Lock CW Speed causes the TNC to lock the CW transmit speed to the speed of the CW signal being received.

# Lock CW Speed

Lock CW Speed causes the TNC to lock the CW transmit speed to the speed of the CW signal being received.

# **RTTY Menu**

# **RTTY Options**

This is the RTTY pull down menu.



**Baud Rate** - This sets the transmit and receive speeds for RTTY.

**Shift** – Allows you to select a frequency shift of 170, 425, or 850 Hz.

#### **Baud Rate**

This sets the baud rate for each non-packet mode.

For RTTY and ASCII you have these options: from 45-300 baud rate. For PACTOR you have these options: 100, 200, and Auto. For AMTOR you have these options: 100, 200, 300, and Auto.

# **RTTY Shift**

Allows you to select a frequency shift of 170, 425, or 850 Hz.

# **ASCII Menu**

# **ASCII** Options

These are the ASCII commands.



**Baud Rate** - This sets the transmit and receive speeds for ASCII

**Shift** – Allows you to select a frequency shift of 170, 425, or 850 Hz.

# **ASCII Shift**

Allows you to select a frequency shift of 170, 425, or 850 Hz.

# **NAVTEX Menu**

## NAVTEX Menu

These are the NAVTEX Commands.



**Shift** – Allows you to select a frequency shift of 170, 425, or 850 Hz.

## Navtex Shift

Allows you to select a frequency shift of 170, 425, or 850 Hz.

# **Amtor Menu**

### **AMTOR Options**

This is a list of the AMTOR commands.

Amtor	
Link	F7
Disconnect	Shift+Alt+F7
Shift	•
Get WRU	
Amtor Listen	
Selcall (MODE I)	

Link - Links to an AMTOR station.

**Disconnect** - Disconnects from an AMTOR station.

**Shift** - Allows you to select a frequency shift of 170, 425, or 850 Hz.

**Get WRU** - Who Are You text. Gets personal information from the TNC.

**AMTOR Listen** – Switches to Listen AMTOR mode.

**SELCALL** - SELCALL is similar to Mode B FEC, except the broadcasting station can select one station or a group of stations to receive the transmission.

# AMTOR Link

The AMTOR Connect command connects to a packet station depending on the call sign entered.

# AMTOR Disconnect

The AMTOR Disconnect command disconnects from a packet station.

## AMTOR Shift

Allows you to select a frequency shift of 170, 425, or 850 Hz.

# Get WRU

Who Are You text. Gets personal information from the other TNC.

#### **AMTOR Listen**

To connect using Listen AMTOR:

- 1) First Open a New HF Window from the File menu.
- 2) There are two ways to select the mode.
  - a) Select AMTOR\_Listen from the Mode menu.
  - b) Click on the AMTOR\_Listen button in the toolbar.
- 3) Once you are in the correct mode (notice the mode in the status bar), you need to tune the Listen AMTOR signal according to the specifications in your MFJ TNC manual.

This option places the TNC in the Listen AMTOR mode. The TNC will receive FEC, SELFEC, or ARQ signals and then will not transmit when in AMTOR\_Listen mode. You

can link to a station in AMTOR\_Listen mode. Click the Link button and type in the call sign. MultiComm Host will set the TNC to AMTOR standby mode to make the connection.

Listen AMTOR allows you to tune to an ARQ without being part of the link. From Listen AMTOR you are able to display the text, but no error correction takes place.

#### SELCALL (Mode I)

SELCALL is similar to Mode B FEC, except the broadcasting station can select one station or a group of stations to receive the transmission. You will be presented with a window requiring you to enter the SELCAL. Enter the SELCAL and click the OK button. This will turn the transmitter on and send the SELCAL as the preamble to a transmission, followed by any text you type into the

chat window. To return to Receive mode, click on the Receive button **R** or press **F5**. At this time, you will only be able to receive SELFEC transmission. To receive any FEC transmission, press **F10** and type "auto-start off" (without the quotes). To send another SELFEC broadcast, select the SELFEC menu option.

## **Pactor Menu**

#### **PACTOR** Options

These are the PACTOR commands.

۲

Pactor

Pactor Connect F7 Pactor Disconnect Shift+Alt+F7 Abort Pactor Link Shift

Pactor Listen

**PACTOR Connect** - The PACTOR Connect command connects to a packet station depending on the call sign entered.

**PACTOR Disconnect** - The PACTOR Disconnect command disconnects from a packet station.

Abort PACTOR Link - Aborts a link in progress.

**PACTOR Shift** - Allows you to select a frequency shift of 170, 425, or 850 Hz.

**PACTOR Listen** - Selecting this menu option puts the TNC in PACTOR Listen mode.

### **PACTOR Connect**

The PACTOR Connect command connects to a packet station depending on the call sign entered.

### **PACTOR Disconnect**

The PACTOR Disconnect command disconnects from a packet station.

#### Abort PACTOR Link

Choose this option during the link phasing process if you wish to abort the link. Once chosen, the current link attempt will be aborted.

### PACTOR Shift

Allows you to select a frequency shift of 170, 425, or 850 Hz.

#### **PACTOR Listen**

Selecting this menu option puts the TNC in PACTOR Listen mode. This mode will allow you to copy FEC or ARQ (Linked) PACTOR stations, but you cannot transmit from this mode. You can link to a station by clicking on the Link button which returns to PACTOR mode. To exit PACTOR Listen mode, click "PACTOR Listen" again on the PACTOR menu to remove the check mark or click on the PACTOR button pagain.

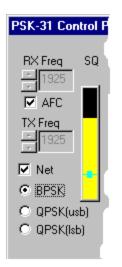
# Lookup Menu

### **Macros Menu**

**PSK31 Control Panel** 

#### **PSK31** Control Panel

When you start PSK31, the PSK31 Control Panel will come up. The Control Panel has controls used to tune a PSK31 signal as well as graphical displays for finding and tuning PSK31 signals. The Control Panel contains Spectrum, Waterfall, Input, and Data Sync views of the signals. Click on the appropriate tab to switch between the views. Controls are located to the left and to the bottom of the Control Panel. To send text or to view received text, go to the Main HF View window in MultiComm Host. For general information on PSK31 in MultiComm Host, see the PSK31 Information and PSK31 Setup sections of this help file.



**RX Freq** - Receive Frequency. Allows you to type in or select a receive frequency. The new frequency takes effect after the mouse cursor is clicked on another part of the Control Panel.

**AFC** - Automatic Frequency Control. Selecting this option allows PSK31 to automatically tune to the nearest signal. To tune a frequency, click your left mouse button near a signal and AFC will tune to the center frequency of the nearest signal. If AFC doesn't lock correctly on the center frequency, there may be poor propagation or you may be receiving a poor transmitting station. In this case, you will need to turn off AFC.

**TX Freq** - Transmit Frequency. Allows you to type in or select a transmit frequency. The new frequency takes effect after the mouse cursor is clicked on another part of the Control Panel.

**Net** - Forces transmitter to use the current Receiver frequency. If both stations use it, they will tend to move across the band together. If neither station uses it, the stations may drift apart. If only one station uses it, the station not using Net becomes the "Master".

**BPSK** - Binary PSK. BPSK is the most commonly used mode but lacks forward error correction. BPSK is indicated in the Vector Display as two vertical lines.

**QPSK** - Quadrature PSK. QPSK has forward error correction but can be harder to tune. It is indicated in the Vector Display as two vertical and two horizontal sets of lines. QPSK is sensitive to sideband so you must select either upper sideband (usb) or lower sideband (lsb).

SQ - Squelch Control. This bar graph sets the signal quality threshold to reduce reception of garbage characters. It acts by inhibiting reception until the signal exceeds a specified level. The vertical bar at the bottom will get longer as the signal quality increases. A small blue horizontal bar indicates the current squelch threshold and can be moved with the mouse to the desired threshold. Signals must exceed this threshold for characters to be displayed. The color of the bar is gray when it is below the squelch threshold bar and changes to yellow when it increases above the squelch threshold bar.

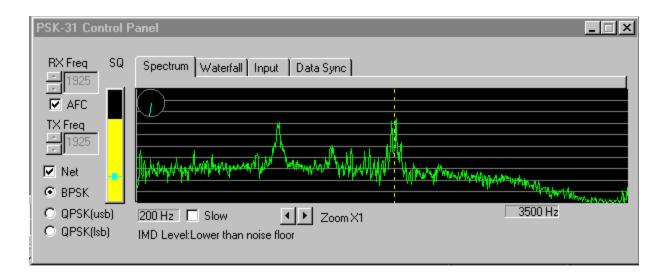
**Slow** - This option smoothes out the spectral display. However, fast changing signals may be lost during smoothing.

**Zoom** - Zoom allows you to look at smaller or larger areas of the display. The display zooms around the current frequency cursor position. The lowest displayed frequency is shown to the left of the display. The highest frequency is shown to the right of the display. Click the arrow buttons to zoom in or out.

		のなななななない
200 Hz 🔲 Slow	✓ ► Zoom ×1	3500 Hz
IMD Level:Lower than nois	se floor	

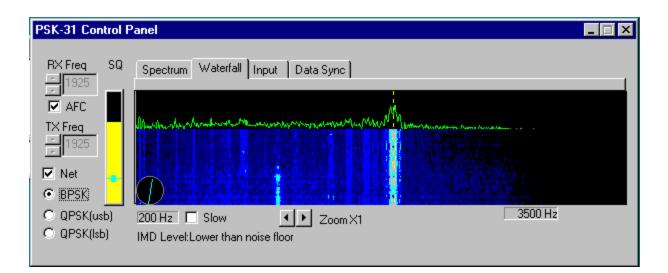
#### **PSK31 Spectrum Display**

The PSK31 Spectrum Display graphs the incoming signal with frequency on the horizontal axis and amplitude on the vertical axis. The gray horizontal grid lines represent 10 dB gradient steps in amplitude. The dashed vertical yellow line represents the current PSK31 receiver center frequency. To automatically tune a frequency, put a check mark beside "AFC" on the left side of the Control Panel. Then click the left mouse button on a signal. The dashed vertical line will move to the center frequency of the nearest signal. The Vector Display in the upper left corner can be used to help find PSK signal. Two vertical lines going in opposite directions from the center will indicate a BPSK signal. A QPSK signal will be indicated by two vertical and two horizontal lines from the center. Clicking the right mouse button on the display will also change the receiver frequency and "rewind" the audio back 25 seconds.



#### PSK31 Waterfall Display

The Waterfall Display is similar to the Spectrum Display. A Spectrum is displayed at the top. Below that is the Waterfall. In the Waterfall Display, the horizontal axis is Frequency and the vertical axis is Time. Horizontal lines are added to the top of the Waterfall Display, pushing older horizontal lines down one notch. The brightness and color of a horizontal line indicate amplitude. As the amplitude at a particular frequency becomes stronger, that area of the line will become brighter and the color will shift from blue to cyan to yellow to white. As newer lines are added to the top of the graph, you can see a "history" of the signal. A dashed vertical yellow line indicates the frequency where the receiver is currently centered. Your mouse cursor can be used to move the center frequency by clicking the left mouse button on a signal. Clicking the right mouse button will also move the center frequency and "rewind" the audio 25 seconds. The Vector Display in the lower left corner can be used to help find PSK31 signals. Two vertical lines going in opposite directions from the center will indicate a BPSK signal. A QPSK signal will be indicated by two vertical and two horizontal lines from the center.



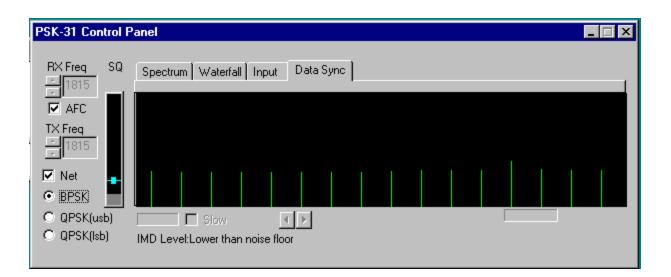
#### PSK31 Input Display

The Input Display shows the raw input signal with Amplitude on the vertical axis and Time on the horizontal axis. The Input Display is primarily used to adjust the receiver and sound card input level. The display changes from green to red when the input level becomes too high.

PSK-31 Control F	Panel
RX Freq SQ	Spectrum Waterfall Input Data Sync
TX Freq → 1819 → 1819 → Net → BPSK	naderen mender konstruktion ander and and and and and and
© QPSK(usb) © QPSK(lsb)	O Sec     Slow     Image: Slow       IMD Level:Lower than noise floor

#### PSK31 Data Sync Display

The Data Sync Display shows a histogram of the internal signal to determine the center of the received bit. An elongated line marks the peak of the histogram. The Data Sync Display can be used to determine if the incoming signals or the user's sound card is off frequency.



## **HF Packet Session**

### **HF Packet**

If you want to connect to HF packet, there are several things you will need to know to help you out. When using a MFJ TNC, you must remember that this TNC has two radio ports but only one radio port can be used at a time. Because of this, when you wish to start a HF packet session, you must do a couple things first. First you must make sure that the HF non-packet session window of MultiComm Host is closed. Secondly go to the File menu, choose Settings and then click on the Communications tab at the top of the window that appears. As you can see in this picture, you will see a section on the bottom of this screen that allows you to select HF or VHF Packet mode for the next session.

Optional Settings	User Defin	ed Macro Variables	Packet Par	ameters	Packet Parameters - Sv
Communications	CallBook	Edit Macros	Startup/Shutd	own Commands	Edit Call Sign Exe
TNC Settings		Unused			
COM port:	1-	COM port: 1			
Baud: 9600	÷	Baud: 4800 👱			
🗌 Use Two T	NCs	🔲 Use AGW Packet B	ingine		
DSP-RTTY					
🗖 DSP-599 or D	SP-59Y				
COM port:	1				
	J	Radio Port			
🔲 Set Registratio	n Set for Second	Packet •	1 🖸 2		
1 🗧		HF C	1 • 2		
E BL	.P Host logging (d	ebugging only)			
E BL	.P Host logging (d	ebugging only)			

Once you have selected the mode for HF packet, you will have to restart MultiComm Host for the change to take effect. Once the HF session is open, you use the HF Packet window in the same way as the VHF Packet.

# Logging Programs

## **Logging Programs**

Starting with MultiComm Host Version 1.5, you can sync a MultiComm Host session window with a Log Windows session or a DX4WIN session.

Synching with a logging program can be very useful during contests and when saving QSOs. Using a logging program like DX4WIN or Log Windows helps to connect and navigate a DX Cluster.

### **Log Windows**

MultiComm Host provides a TNC interface for Log Windows version 2.0 and higher. Data being received or echoed by the TNC can be sent to Log Windows. Likewise data typed in the Log Windows transmit window can be sent to the MultiComm Host window. MultiComm Host acts as a data engine for Log Windows. One of MultiComm Host's user port windows can be redirected to the Log Windows TNC window, allowing full two-way communications between Log Windows and a TNC through MultiComm Host. For example, if you are using a dual port TNC and MultiComm Host you may,

1) Redirect TNC Port 2, which is VHF Packet for use with Log Windows.

2) Use TNC Port 1 for other HF digital modes.

As you can see, you may enjoy the benefits of true dual port operating while sharing the power of MultiComm Host and Log Windows. Log Windows 2.0 or greater is required. All MultiComm Host functions are still enabled while communicating with Log Windows.

Synchronizing MultiComm Host with Log Windows

MultiComm Host must first become aware that Log Windows is running. To do this:

- 1) Start both programs.
- Either click the Log Windows button in the toolbar or select the Mode menu and choose Sync with Logging Program, and then choose Log Windows.

Once you have Synched MultiComm Host and Log Windows, simply minimize MultiComm Host and you can communicate with the TNC using Log Windows. For more information on using Log Windows, consult the Log Windows program documentation.

### **DX4WIN**

In order to use DX4WIN with MultiComm Host you must first set up DX4WIN to recognize MultiComm Host.

To setup DX4WIN simply:

- 1) Open DX4WIN.
- 2) Click on the File menu at the top of the window.
- 3) Choose Preferences.
- 4) A window that says 'Setup Parameters' should appear. On the right side of the window you should see about 16 tabs. Choose the tab that says 'Packet1'
- 5) At the top of the window under the TNC interface section type the following in:
  - c) Type : Regular
  - d) COM Port: Msg
  - e) Message Handshake: CSS TNC PROGRAM/Multicomm Host

Important: MESSAGE HANDSHAKE MUST BE TYPED EXACTLY AS YOU SEE IT HERE!

In the above message the | character before MultiComm Host is called a 'Pipe' and is located above the | key on your keyboard (on the keyboard it looks like a stretched out colon).

Setup Parameters		
File		_
TNC interface		Personal
Type COM Po	rt Message handshake	Station
Regular 💌 Msg	CSS TNC Program PKTerm	QSO
Baud Rate Flow Control	Data / Parity	Screen
9600 None	8 bits/no parity	Import
Warning messages	Audio / Voice	Radio
System Beep	System Beep	Packet1
DX Alerts	Callsign Alert	Packet2
New Mode		RTTY
, 	Profives/Zenec for Spotters	Ext Data
Options	Prefixes/Zones for Spotters	F2 Key
Ignore 'Gray' Spots		DXCC
Use bell character	New band/mode warning	WAS
E Backup DX spots	Adds to Award	WAZ
Show function keys		WPX
🗖 Show spot on applicaton		Rep/Lab

6) Click on the File menu and choose Save Changes.

Now DX4WIN is ready for use with MultiComm Host. Simply load MultiComm Host and DX4WIN at the same time and click on either the DX4WIN button , or click on the Mode menu at the top of the MultiComm Host window and choose Sync with Logging Program and then choose DX4WIN.

# **Rig Control**

### **Getting Started with Rig Control**

Starting in Version 1.5 of MultiComm Host, a basic form of rig control has been included to make your life easier while surfing the airwaves and using MultiComm Host. The design of the Rig control option in MultiComm Host was intended to be intuitive and second nature, so you will no longer have to keep going around your ham shack from the computer to the radio to change frequencies and then back to the computer again. Hey, if you had a long enough serial cord and a laptop, you could even make contacts while you're watching your favorite shows in the living room!

Before we get started, you will need to make sure you have all the things required to use the Rig Control feature.

- 1) A transceiver on the compatibility list below. (This is just a preliminary list. Newer versions of rig control will support more transceivers.)
- 2) A RS-232 Interface for Rig Control that is compatible with your transceiver.
- 3) A computer with two open serial ports (one for the TNC and one for the RS-232 interface.).

# **NOTE**: THE RIG CONTROL SOFTWARE IS IN PREVIEW. IF YOU EXPERIENCE ANY PROBLEMS WITH IT PLEASE COMMUNICATE THEM TO rigcontrol@cssincorp.com

Transceiver Compatibility list

<u>Manufacturer</u>	<u>Model</u>	Manufacturer	Model
Alinco:	DX-77	Ten-TEC:	535
ICOM:	IC-707	Ten-TEC:	536
ICOM:	IC-725	Ten-TEC:	563
ICOM:	IC-726	Ten-TEC:	564
ICOM:	IC-728	Ten-TEC:	OMNI-VI
ICOM:	IC-729	Yaesu	FT-1000
ICOM:	IC-735	Yaesu	FT-757GX
ICOM:	IC-736	Yaesu	FT-840
ICOM:	IC-737	Yaesu	FT-900

ICOM:	IC-738	Yaesu	FT-990
ICOM:	IC-751A		
ICOM:	IC-756		
ICOM:	IC-761		
ICOM:	IC-765		
ICOM:	IC-781		
Kenwood:	TS-450S		
Kenwood:	TS-50S		
Kenwood:	TS-690S		
Kenwood:	TS-850		
Kenwood:	TS-950S		

See the Setting up Rig Control section of this help file for more information on setup.

## **Setting Up Rig Control**

Now that you've gotten everything you need to take advantage of Rig Control, all you have to do is plug the RS-232 interface into your radio and then plug the other end of the RS-232 interface into your open serial port. Once the hardware is set up, just load the Rig Control program. The first time you load the Rig Control program you should see a screen telling you that you need to configure it for your computer and radio. The screen should look like this:



Once you see this window just click on the 'OK' button to proceed to the next screen.

The next window you will see will be the Radio Setup screen. If you ever have to change a setting this is where you will do so.

Radio Setup	×
COM port: 1 🗾 Baud: 📑	
Radio Brand: ALINCO ICOM KENWOOD TEN-TEC YAESU	
Radio Type: DX-77	
Radio Address:	
OK Cancel	

The first thing to do is to select the COM port where the RS-232 interface for your radio is connected. For most people it will be either COM 1 or COM 2 since these are usually the 2 external serial ports on a computer. Be warned though that people using a serial mouse will either have to have a PS/2 mouse or obtain an additional external serial port.

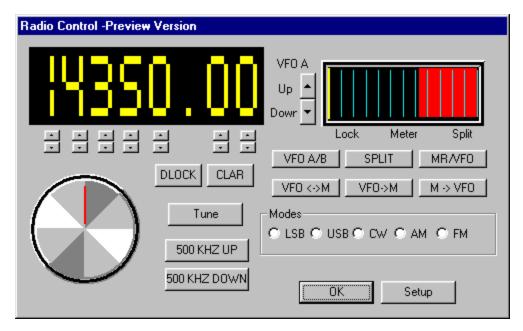
The second thing you will need to do on the Settings screen is to select the baud rate of the serial port the radio is on. The baud rate depends on what the interface for the radio is set for. The default baud rates for the radios are:

RADIO	BAUD
Kenwood	4800
ICOM	1200
Yaesu	4800
Alinco	9600
Ten-Tec	1200

The baud rates may be changed if so desired. Please consult your radio's user manual for information on how to change the baud rate on your radio. See the Using Rig Control section of this help file for more information on using the controls in the Rig Control window.

## **Using Rig Control**

Now that you've got the Rig Control set up, you can have lots of fun without having to keep reaching over and tuning the radio manually. You should now see this screen when you run Rig Control.



At the top of the window you should see a large digital display. This is the frequency to which the radio is set. If you look at your radio when this window pops up you should see it is set to this frequency.

There are several ways to tune the radio. For general tuning you can use the knob to tune quickly to a different frequency. This lets you tune faster but it is harder to fine tune to a specific frequency. Once you get to the general area that you want, simply use the up and down arrows found below the frequency display.

If you're interested in changing bands then you can click the '500 kHz UP' or the '500 kHz DOWN' button to raise or lower the frequency by 500 kHz.

The Modes simply let you change the radio between Upper Side Band (USB), Lower Side Band (LSB), CW, AM, or FM.

**DLOCK** - Locks the dial so you cannot tune with the dial on the radio. You can still tune with the Rig Control software though.

TUNE - Sets your Antenna Tuner.

**UP and DOWN** - Depending on the radio these buttons will either switch up and down a band or change the frequency up or down 100 kHz.

**CLAR** - This is the clarifier. When this button is clicked, you can tune and change bands to change the receiving frequency without changing the transmitting frequency. When the button is depressed, the receiving frequency changes back to the original frequency.

Underneath the Meter at the upper-right hand corner of the Rig Control window you will notice a group of buttons. These buttons are VFO A/B, SPLIT, MEMO, VFO->M, AND M->VFO.

- **VFO A/B** Pressing this button causes the frequency data in the VFO A and VFO B registers to be exchanged. If this button is pushed again then the frequency data will be exchanged again, returning it to its original frequency.
- **SPLIT** Pressing this button enables split frequency operation, letting you switch from simplex to duplex operation. The frequency shown will be the receiving frequency until you key the mike and then the frequency shown will be changed to the transmitting frequency.
- **VFO->M** This button writes the frequency data from the selected VFO into the last selected memory channel.
- M->VFO This button writes the frequency data from the last selected memory channel into the last selected VFO. The memory data remains unchanged in the memory, but previous data in the VFO is overwritten.

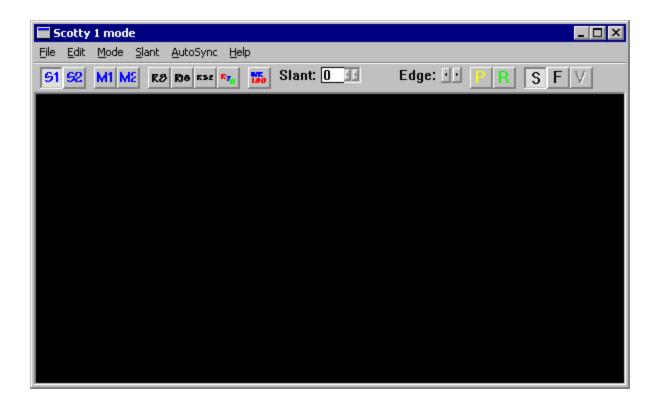
**NOTE:** NOT ALL RADIOS WILL SUPPORT ALL OF THESE FUNCTIONS. FOR MORE INFORMATION ON YOUR RADIO'S FUNCTIONS PLEASE CONSULT YOUR RADIO MANUAL.

When you are done using the Rig Control simply click the OK button at the bottom of the window to close it. To change the settings for the Rig Control (i.e., baud rate or COM port) click the Setup button. This will take you back to the same setup screen you saw when you first set up Rig Control. For more information on setting up Rig Control or changing the settings please see the Setting up Rig Control section of this help file.

**Slow Scan TV** 

## **SSTV** Window

MultiComm Host allows you to send and receive Slow Scan TV pictures over radio using the Slow Scan TV capability of your MFJ TNC. To start Slow Scan TV, click on the File menu on the main MultiComm Host window and select "SSTV Modes". This will open a Slow Scan TV window similar to the one below.



## **SSTV** Toolbar

This is the SSTV Toolbar.

**P** 4



These are the buttons on the SSTV Toolbar

51	Starts Scottie 1 mode
52	Starts Scottie 2 mode
M1	Starts Martin 1 mode
M2	Starts Martin 2 mode
R8	Starts Robot Black and White 8 mode
R <sub>IE</sub>	Starts Robot Black and White 16 mode
R <sub>32</sub>	Starts Robot Black and White 32 mode
R <sub>72</sub>	Starts Robot Color 72 mode
ШR	Starts Wrasse SC2-180 mode
P	Pause Slow Scan
R	Resets Slow Scan parameters
S	Sets AutoSync
F	Sets Slow Scan to Free Running
V	VIS

## **SSTV File Menu**

File
Save
Exit

**Save** – Saves a copy of the SSTV pictures to your disk drive

 $\ensuremath{\textit{Exit}}\xspace - \ensuremath{\textit{Ends}}\xspace$  your SSTV session and closes the SSTV window

# **SSTV Edit Menu**



**Copy** – Copies the selected image to the Windows clipboard

## **SSTV Mode Menu**

M	ode
¥	Scottie 1
	Scottie 2
	Martin 1
	Martin 2
	Robot BW 8
	Robot BW 16
	Robot BW 32
	Robot CO 72
	Wrasse SC2

180

**Scottie 1** – This is a RGB color mode with a transmission time of 110 seconds and 240 useable scan lines. Top 16 lines are gray scale.

**Scottie 2** – This is a RGB color mode with a transmission time of 71 seconds and 240 useable scan lines. Top 16 lines are gray scale.

**Martin 1** – This is a RGB color mode with a transmission time of 114 seconds and 240 useable scan lines. Top 16 lines are gray scale.

**Martin 2** – This is a RGB color mode with a transmission time of 58 seconds and 240 useable scan lines. Top 16 lines are gray scale.

**Robot BW 8** – This is a simulated black and white mode where green is sent to simulate black and white. Transmission time is 8 seconds with 120 scan lines.

**Robot BW 12** – This is a simulated black and white mode where green is sent to simulate black and white. Transmission time is 12 seconds with 120 scan lines.

**Robot BW 24** – This is a simulated black and white mode where green is sent to simulate black and white. Transmission time is 24 seconds with 240 scan lines.

**Robot CO 72** – This is a color mode with a transmission time of 72 seconds and 240 scan lines.

**Wrasse SC2-180** – RBG color mode with a transmission time of 180 seconds and 256 scan lines.

# **SSTV Slant Menu**



**Adjust Left** – If picture is slanted toward the right, this command will adjust it to the left.

**Adjust Right** – If picture is slanted toward the left, this command will adjust it to the right.

# SSTV Autosync Menu

AutoSync

AutoSync picture
 Free Running Mode

**AutoSync picture** – Synchronize the picture automatically

**Free Running Mode** – Receive picture without automatic synchronization

# TroubleShooting

## Troubleshooting

If you were unable to establish communications with your TNC using MultiComm Host, use the terminal program titled HyperTerminal under the Accessories menu in Windows to determine whether or not your TNC is talking to the serial port. Once the TNC is operational with HyperTerminal, you can go back and troubleshoot your settings in MultiComm Host. If you choose to use HyperTerminal, you will have to set up a program name, the COM port, and baud rate for your TNC. Bring up HyperTerminal by clicking on Start, Programs, Accessories, and then select HyperTerminal. If you can't find HyperTerminal, it may be located under the Communications menu or you may need to install it from your Windows CD.

It will initially ask you for a name (this is a name of the configuration you will make to test your TNC). Enter a name such as TEST and click on OK. Next select the COM Port (e.g. COM 1) where your TNC is attached and click OK again. Then select 9600 as your terminal baud rate and click the OK button. **NOTE**: These are the only parameters you will need to enter or change. Then press **<Enter>**.

At this point you may see the command prompt, which means that your TNC is in Terminal Mode, the right serial port and baud rate has been selected, and you are able to communicate with it. You may see a few characters including S00, which means the TNC is responding in Host Mode. If you don't see anything at this point, turn the TNC off and then back on. If you now see several characters including S00, you are in Host Mode, indicating that the TNC is working.

If only "garbage-like" characters are displayed, the right serial port has been selected, but the baud rate that was selected is not correct. Return to the Settings screen and select a different baud rate.

If nothing is displayed when the TNC is turned off and back on, the wrong serial port may have been selected. Return to the Settings screen, and try a different serial port selection.

Make sure the COM port selected is working correctly. If HyperTerminal works OK to communicate through the selected COM port to the TNC, MultiComm Host should also work.

If HyperTerminal cannot communicate with the TNC, make sure the serial cable is connected properly and the TNC is turned on.

Make sure the serial port that was selected is not one that is already in use by another device such as a mouse or a modem. Windows manages the COM port for these types of devices and will not allow proper operation of a TNC and MultiComm Host.

#### **Other errors:**

• Application Errors are cause by a 'point gone astray'. Many times, this could mean bad memory, a bad spot on the hard disk or Windows may be in some unknown state. When this happens, make sure your 'TEMP' directory on the hard disk has been cleaned out (usually C:\Windows\Temp in Windows 95/98/Me) and run ScanDisk. Details on how to do this are in the Windows online help.

- Getting an Error during startup. If you get any of the startup errors that are documented elsewhere in this help (MON001, STAMP001, etc.), that normally means there is a communication problem between MultiComm Host and your TNC. Make sure your COM port and baud rate in MultiComm Host match that for your TNC. Also make sure the COM port for your TNC has no IRQ conflicts.
- Scrolling text on the screen is erratic or letters appear 'behind' the splitter bar. This may happen with some video cards with certain fonts. To fix it, adjust the size of the splitter windows by moving the splitter bar up and down to the size you want. MultiComm Host will then save that information.
- If you cannot see the extended ASCII characters (i.e. box characters appear) on the screen, pick a font (such as the "Video Terminal Screen" font) that supports the OEM character set. In the next release, we will be providing you with access to a Symbol font that supports this.

#### Some Error Messages that may occur during startup:

- **NU01** Error, trying new user Mode. This message means all attempts to communicate with the TNC have failed.
- MYCALL01 TNC didn't return MYCALL status after MultiComm Host sent the MYCALL <Call Sign> command.
- MYCALL02 -TNC didn't return MYCALL status after MultiComm Host sent the MYCALL <Call Sign> command after finding the MYCALL didn't match the Call Sign in the MultiComm Host .INI file
- MON01 TNC didn't return MONITOR status after MultiComm Host sent the MONITOR ON command
- MCOM01 -TNC didn't return MCOM status after MultiComm Host sent the MCOM ON command
- MCON01 -TNC didn't return MCON status after MultiComm Host sent the MCON ON command
- **STAMP01** -TNC didn't return CSTAMP status after MultiComm Host sent the CSTAMP ON command
- **XECH001** -TNC didn't return XMITECHO status after MultiComm Host sent the XMITECHO ON command
- **STA001** TNC didn't return STATUS status after MultiComm Host sent the STATUS command

**Technical Support** 

## **Technical Support**

If you need more information on Windows, please consult Windows Help by clicking on the Windows Start button and then selecting Help.

You can also check our web site for information. Our web site is http://www.cssincorp.com/multicommhost.

Also check out http://www.mfjenterprises.com

For problems with the MultiComm Host documentation, send an email to docmaster@cssincorp.com

Support is provided via Phone at (256) 381-6135 and via E-mail at support@cssincorp.com

If you need more information on your TNC, please consult your MFJ TNC Owners Manual.

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